

**SYRACUSE UNIVERSITY**

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**Syracuse University Bulletin**

**UNDERGRADUATE  
COURSE CATALOG**

**2014-2015**



## Undergraduate Course Catalog Table of Contents

<b>Welcome and Course Catalog Purpose and Disclaimer Statement</b> .....	2
<b>Useful Information</b> .....	3
<i>About Syracuse University</i> .....	3
<i>Tuition and Fees</i> .....	3
<i>Academic Calendar</i> .....	3
<i>Admissions and Financial Aid</i> .....	3
<i>Hours of Operation</i> .....	4
<i>University Facilities</i> .....	5
<i>Library</i> .....	6
<i>Information Technology and Services</i> .....	6
<i>Health Services</i> .....	7
<i>Career Services</i> .....	7
<i>Syracuse University Internship Opportunities</i> .....	8
<i>Interdisciplinary and Specialized Study</i> .....	8
<i>The CASE Center</i> .....	9
<i>The Graduate School</i> .....	9
<i>Syracuse University Graduation Rate</i> .....	10
<i>Adjunct Faculty and Teaching Assistants</i> .....	10
<i>Syracuse University Roster</i> .....	12
<i>Student Rights (FERPA)</i> .....	14
<i>Distance Learning Students - Information</i> .....	15
<i>Nondiscrimination and EEO Policy</i> .....	20
<i>Campus Safety</i> .....	20
<b>Academic Rules</b> .....	21
<b>Academic Offerings</b> .....	55
<b>Minors at Syracuse University</b> .....	67
<b>Other Programs</b> .....	67
<b>Guide To Reading Course Descriptions</b> .....	73
<b>Glossary of Course Subjects</b> .....	76
<b>School of Architecture</b> .....	84
<b>College of Arts &amp; Sciences</b> .....	101
<b>School of Education</b> .....	380
<b>College of Engineering and Computer Science</b> .....	449
<b>David B. Falk College of Sport and Human Dynamics</b> .....	516
<i>Child and Family Studies</i> .....	518
<i>Public Health, Food Studies and Nutrition</i> .....	519
<i>School of Social Work</i> .....	521
<i>Sport Management</i> .....	523
<b>School of Information Studies</b> .....	553
<b>College of Law</b> .....	574
<b>Martin J. Whitman School of Management</b> .....	581
<b>Maxwell School of Citizenship and Public Affairs</b> .....	609
<b>S.I. Newhouse School of Public Communications</b> .....	653
<b>College of Visual and Performing Arts</b> .....	681
<i>School of Art and Design</i> .....	682
<i>Drama</i> .....	684
<i>Communication and Rhetorical Studies</i> .....	687
<i>Senor School of Music</i> .....	687
<b>University College</b> .....	805
<b>SUNY-ESF (Partner Institution)</b> .....	818

# Syracuse University Undergraduate Catalog 2014-2015

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## Welcome!

Welcome to Syracuse University's online course catalog. In this searchable resource you'll find detailed information about all of the schools, colleges, and hundreds of distinct degree programs offered by Syracuse University at every level, including descriptions of the faculty and related courses. You also will find descriptions of many special opportunities and entities that enhance academic life at Syracuse, such as study abroad programs, centers for interdisciplinary learning, and immersion opportunities across the U.S. and around the world.

Those of you already familiar with Syracuse University will find here the specifics that you seek, and we invite those not yet familiar with us to explore the full breadth and depth of our academic offerings. Whatever your level of familiarity, we're sure that as you learn more about Syracuse, you will find ample evidence of our institutional commitment to inspire, challenge, and energize students to strive for excellence always as they pursue their academic and professional goals.



Eric F. Spina  
Vice Chancellor and Provost

A handwritten signature in black ink that reads "Eric F. Spina". The signature is written in a cursive, flowing style.

The Syracuse University Undergraduate Course Catalog and Graduate Course Catalog are published online annually in July and are primarily intended for use by currently enrolled students, faculty, and staff. The catalogs provide an overview of the University's curriculum, academic programs, facilities, and educational resources. They also include University academic policies, rules, regulations, and procedures; information about degree and certificate programs, including degree requirements; a listing and description of courses; and faculty information. Links to other related information are also included.

The information concerning academic requirements, courses, and programs of study contained in the publication does not constitute an irrevocable contract between the student and the University. The University reserves the right to change, discontinue, or add academic requirements, courses, and programs of study. Such changes may be made without notice, although every effort will be made to provide timely notice to students. It is the responsibility of the individual student to confirm that all appropriate degree requirements are met.

## About Syracuse University

Syracuse University, located in the City of Syracuse in the center of New York State, is a private coeducational university comprising 12 undergraduate and graduate schools and colleges. Founded in 1870, the University today has an enrollment of more than 13,000 undergraduates and close to 6,000 graduate and Law students representing all 50 states, more than 100 countries, and a variety of social and economic backgrounds.

Syracuse combines the supportive network of a small college with the superior resources and enhanced research and immersion opportunities needed for students to achieve their academic and professional goals. Students will learn from world-class teachers, assist in critical research, collaborate across disciplines, and engage in the many-faceted intellectual, cultural, and social activities and events that comprise this vibrant campus community. In and out of the classroom, students will gain the knowledge, skills, and experience needed for them to excel in whatever field they choose to pursue.

Syracuse University's picturesque main campus reflects its rich heritage, with an architectural mix of classic and contemporary academic buildings. The Hall of Languages and its early hillside companion, Crouse College, are listed in the National Register of Historic Places. At the heart of the campus is its sweeping "Quad"—an open expanse of lawn and walkways, and a popular gathering place for students throughout the day.

Syracuse University is chartered by the New York State Board of Regents and accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104; 267-284-5000. Professional accreditation for each of the professional colleges and schools accords with the regulations of the appropriate professional association. For further information, contact the dean's office of each school or college.

Syracuse University is committed to compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and all other applicable laws prohibiting disability discrimination. These statutes generally prohibit discrimination against individuals with disabilities and provide that no otherwise qualified person with a disability shall be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Students who may need assistance should contact the Office of Disability Services, Room 309, 804 University Avenue; 315-443-4498, 315-443-1371 (TTY), [www.disabilityservices.syr.edu](http://www.disabilityservices.syr.edu).

## Tuition And Fees

Bursar Operations publishes the Syracuse University Bulletin: Tuition, Fees, and Related Policies, which provides information about tuition, room, meal plans, and other University fees. This publication is available online at <http://bursar.syr.edu>

## Academic Calendar

The Academic Calendar for 2014-15 is available at <http://syr.edu/registrar/acadcalendars/acaddl2014-15.pdf>

## Admissions And Financial Aid

### Undergraduate Admission

To receive information about undergraduate admissions, please contact the Office of Admissions, 100 Crouse-Hinds Hall, 900 South Crouse Avenue, 315-443-3611, or send an e-mail to [orange@syr.edu](mailto:orange@syr.edu). Visit our web site at [admissions.syr.edu](http://admissions.syr.edu)

### Financial Aid

To receive information about financial aid, please contact the Office of Financial Aid and Scholarship Programs located at 200 Archbold North. Reach us by telephone at 315-443-1513, or send an e-mail to [syr.edu/financialaid/contact\\_us](mailto:syr.edu/financialaid/contact_us). Visit our website for detailed financial aid information at [syr.edu/financialaid](http://syr.edu/financialaid).

### Graduate Admission

#### POST-SECONDARY EDUCATION REQUIREMENTS

To be considered for admission, an applicant to a graduate program at Syracuse University must provide documentation of having earned the degree required for admission to the particular program or documentation demonstrating that the applicant will complete the required degree prior to beginning studies at Syracuse University. In most cases, this will be a U.S. bachelor's degree or its equivalent from another country. For some degree programs, this will be a master's degree or its equivalent from another country. Degrees earned by international applicants must be from colleges or universities that are recognized by the national educational authority of the institution's home country.

If admitted, students will be required to submit official degree bearing transcripts. All official documentation must bear the appropriate signatures and seal of the institution that issued it and must be received by Syracuse University in a sealed envelope directly from that institution.

#### For students who have received a degree(s) from a U.S. institution(s):

Documentation of a degree from a U.S. institution is a transcript indicating that a degree has been awarded and the date on which it was awarded.

#### For students who have received a degree(s) outside the U. S.:

Documentation of a degree from an institution outside the U.S. consists of a diploma, certificate, or certificate of graduation indicating that a degree has been awarded and the date on which it was awarded AND a transcript (mark sheet, statement of marks, grade report) of all courses taken and

grades for each course completed for the degree awarded.

To meet this requirement, contact the Registrar's Office of the higher educational institution that conferred your degree and have one copy of your official transcript(s) sent to Syracuse University. All original transcripts must be in English or translated in English and notarized by the Registrar's Office at the institution attended. The institution should mail official degree bearing transcripts to:

Enrollment Management Processing Center  
Syracuse University  
Graduate Admissions Processing  
P.O. Box 35060  
Syracuse New York 13235-5060

#### GENERAL REQUIRED MATERIALS

Individuals interested in applying to a graduate program offered at Syracuse University must complete an official graduate application and submit one copy of records of all previous postsecondary education. Most departments also require three letters of recommendation and scores from standardized aptitude tests. The Program Requirements List by School/College included in the Graduate Application contains the specific tests required by each academic unit.

#### INTERNATIONAL STUDENTS

Those applicants whose primary language of instruction has not been English must take the Test of English as a Foreign Language (TOEFL). Applicants who are citizens of the following English-speaking countries are not required to submit TOEFL scores: Australia, Bahamas, Barbados, Canada, Fiji, Ireland, Jamaica, New Zealand, Trinidad and Tobago, and the United Kingdom.

Please be aware that exam scores are not generally available until four to six weeks after the exam is administered. It is the applicant's responsibility to ensure that exam scores reach Syracuse by any applicable deadlines. All scores for TOEFL, GRE, and GMAT are reported to a single location at Syracuse University. The institution code for Syracuse University is 2823.

Each academic unit establishes acceptable scores and may also require other demonstrations of English language competence. Details are available from academic units directly.

If you are admitted and need to obtain a non-immigrant student visa to enter the U.S. or transfer to Syracuse University from another school in the U.S., you must show evidence of having secured sufficient funding for at least the first year of study. For a privately sponsored applicant, acceptable evidence of such funding consists of a certified current bank statement on official bank letterhead, signed by an authorized bank official, indicating that sufficient funds exist to meet at least first-year expenses in U.S. dollars. A government-sponsored applicant must submit an original award letter (or a certified copy of an award letter). The letter must state the annual amount of the award in U.S. dollars.

All financial documents must be written in English and valid within one year of the start of the semester. Please note that it is only possible to estimate the annual cost of attendance for graduate students because costs vary widely according to the number of credits taken as well as the lifestyle of the student.

**Nonimmigrant Alien Students**  
Syracuse University is authorized under federal law to enroll nonimmigrant alien students.

#### Graduate Financial Assistance

Many graduate students receive financial assistance, either through Syracuse University or outside programs. For a full list of funding opportunities, visit Funding Options in the Graduate School website for additional information and deadlines.

## Hours Of Operation

### Academic Buildings

#### Academic Semester

Monday – Thursday:	7:30 a.m. – 10:00 p.m.
Friday:	7:30 a.m. – 5:00 p.m.
Weekends:	determined at the building occupant's discretion, except for the weekend community building, which is open 7:30 a.m. – 10:00 p.m.

Summer (includes Maymester and Summer Sessions)

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Monday – Thursday:	7:30 a.m. – 10:00 p.m.
Friday:	7:30 a.m. – 5:30 p.m.
Weekends:	determined at the building occupant’s discretion, except for the weekend community building, which is open 7:30 a.m. – 10:00 p.m.

#### Opening weekends

Saturday-Sunday:	7:30 a.m. – 5:00 p.m. in both fall and spring (when spring opening falls on Martin Luther King Day weekend, Monday hours may be set at the building occupant’s discretion).
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During extended breaks when classes are not in session but the University is open, academic buildings are unlocked during regular University business hours (8:30 a.m. – 5:00 p.m. during the academic year, 8:00 — 4:30 in summer), at a minimum. On non-business days during those periods or during a semester, the building occupant(s) may set hours at their discretion.

Bird Library – click “hours” on the library’s website: <http://library.syr.edu/> (extended hours adapted to semester schedule)

Graduate, Law, and other professional schools expand schedules during certain periods. Information on specific academic programs and activities can be verified by calling 315-443-1870.

## University Facilities

Syracuse University students learn, study, and play among the 300 buildings on 900 acres that make up the campus. The University’s 144-year history is reflected in buildings across campus, with architectural styles ranging from Romanesque to modern. Fifteen buildings are listed in the National Register of Historic Places.

- The College of Arts and Sciences’ humanities programs are concentrated in the Hall of Languages, Huntington Beard Crouse Hall, Bowne Hall and the Tolley Humanities Building. Facilities for instruction and research in the sciences are located in the Life Sciences Complex, Physics Building, Heroy Geology Laboratory, Carnegie Library, Center for Science and Technology, and on South Campus at 621 Skytop Road.
- The School of Architecture is located in Slocum Hall.
- The Syracuse University College of Engineering and Computer Science is housed in Link Hall, the Center for Science and Technology, the Syracuse Center of Excellence Headquarters, Bowne Hall, and the Institute for Sensory Research located on South Campus
- The College of Law is located in the recently constructed Dineen Hall.
- The David B. Falk College of Sport and Human Dynamics includes the Department of Public Health, Food Studies and Nutrition housed in Lyman Hall and 426 Ostrom Avenue; the Department of Child and Family Studies is located at 426 Ostrom Avenue; the Department of Marriage and Family Therapy is located in off-campus facilities in Downtown Syracuse; the Department of Sport Management, located at Drumlins Country Club; and the School of Social Work, located in Sims Hall. Administrative offices for Student Services are in Sims Hall, and the Dean’s Office is located at 119 Euclid Avenue.
- The S.I. Newhouse School of Public Communications is located in the three-building Newhouse Communications Complex along University Place.
- The School of Education is housed primarily in Huntington Hall, with additional program and administrative offices in the Hoople Building, the Henry Center, and the Women’s Building.
- University College is located at 700 University Avenue, between Marshall and Adams streets.

Overseas, SU Abroad houses programs in Florence and London, along with other sites.

Nationally, SU maintains a presence in New York City at the Joseph I. Lubin House, in Washington, D.C., at the Paul Greenberg House, and in California at the SU in LA offices. A variety of programs and events draw alumni, students, and friends to the centers.

#### Student Life Facilities

Students have a variety of housing options on Main Campus and South Campus. They can live in single rooms, double rooms, and suites in residence halls and apartments. Students can grab a meal or a snack at any of the five dining centers or several snack bars around campus.

The Schine Student Center is the hub of activity on Main Campus, housing a food court, auditorium, gallery, lounges, meeting rooms, game room, and student organization offices. The Schine also houses the main campus bookstore, which also has several on campus branches. The Carrier Dome is home to sporting events, Commencement, and musical and cultural events. An international student center, LGBT resource center, counseling center, off-campus and commuter office, the Women’s Building, Watson Theater, Robert B. Menschel Media Center, and several other facilities accommodate student services

and extracurricular programs.

Recreation facilities abound throughout campus. Archbold Gymnasium, Flanagan Gymnasium, the Women's Building, Ernie Davis Hall, and Marshall Square Mall contain fitness centers, swimming pools, gymnasiums, exercise rooms, dance studios, and courts for racquet sports. Manley Field House also is available for indoor recreation and student activities. Outdoor tennis courts and playing fields are located on both Main and South campuses. The Goldstein Student Center on South Campus serves Skytop and Slocum Heights students. The Tenny Ice Pavillion offers skating rinks for recreational and intramural skating sports. Hendricks Chapel, on Main Campus, sits majestically on the Quad as the focus of programs of the dean of the chapel. The St. Thomas More Chapel serves Roman Catholic students, and the Winnick Hillel Center for Jewish Life serves Jewish students.

#### Auxiliary Operations

Auxiliary service facilities include University Health Services and the Goldstein Alumni and Faculty Center. University administrative functions are conducted in Crouse Hinds Hall, the Women's Building, Steele Hall, the Schine Student Center, and at 111 Waverly Avenue on Main Campus and in the Skytop Administrative Services Building and 621 Skytop Road on South Campus.

Academic Computing Services and facilities for administrative data processing are located in the new Green Data Center and Machinery Hall, with administrative offices located in the Center for Science and Technology.

The State University College of Environmental Science and Forestry (ESF) is situated on its own campus, adjacent to Main Campus.

## Library

On the web at [library.syr.edu](http://library.syr.edu), the Syracuse University Libraries support teaching, learning, and research at the university by providing a wide array of on-site and online resources and associated research support services. Library hours are extensive, with 24-hour access in Bird Library from Sunday through Friday during the academic year. Libraries are equipped with wireless access, laptops and other equipment for loan, and provide a variety of study spaces, including group and individual study rooms, technology-equipped study rooms, and a silent reading room. Librarians and library staff provide both in-person and web-based services via chat, email, and other venues.

The SU Libraries include:

- Bird Library, home to the Learning Commons, Pages (café), library administrative offices, and the Special Collections Research Center; houses humanities and social science materials;
- The Carnegie Library on the Quad; features a quiet reading room; houses materials in science disciplines, technology, mathematics, and technical arts;
- The Geology Library, adjacent to the Geology department in Heroy;
- The Architecture Reading Room, located in Slocum Hall, and;
- The Belfer Audio Archive, which houses historic sound recording collections and equipment.

Other separately administered campus libraries include the Martin Luther King, Jr. Memorial Library (African-American Studies Department), the H. Douglas Barclay Law Library (College of Law), and Moon Library (SUNY College of Environmental Science and Forestry).

The library's diverse collections in all university academic disciplines include more than 3.5 million printed volumes, over 100,000 online and print journals, as well as extensive collections of maps, images, sound and video recordings, music scores, microforms, rare books, and manuscripts. An interlibrary loan service delivers needed materials not owned by SU Libraries. Library workstations, including Macs and PCs, are equipped with standard campus software applications; also available are specialized software for multimedia production, and adaptive technologies for disabled users. Online resources are accessible to SU-affiliated users from any location, including residence halls, off-campus apartments, and international centers.

## Information Technology And Services

Center for Science and Technology, 315-443-2677

<http://ITS.syr.edu>

[help@syr.edu](mailto:help@syr.edu)

Information Technology and Services (ITS) ensures that students at Syracuse University have access to a broad range of computing and information technology services. The services include high-speed wired and wireless Internet connections in buildings across campus, including wireless in all residence halls; high-tech, multimedia classrooms and collaborative spaces; e-mail; web conferencing; digital publishing; online teaching and learning; and campus computer labs equipped with the latest software technologies used in academic coursework, including statistical analysis, database management tools, and multimedia applications. Students also have access to space on the central computing system for file storage and for creating personal Web pages. More than 4,000 classes are supported via Blackboard, an online learning environment that enables anytime, anywhere student engagement. MySlice provides every student a secure, online gateway to all essential University resources including the course catalog, class registration and schedules, grades, transcripts, and accessing financial aid, tuition, housing and meal plan information and services. Additional computing resources for specific academic programs and research activities are available through the University's schools and colleges. SU is a leader in developing and using World Wide Web technologies and is a member of the Internet 2 consortium. SU's Green Data Center is a showcase of world-class innovations in advanced energy-efficient information technology and building systems, making it one of the world's "greenest" computer centers.

#### Getting help

In addition to maintaining the University's computing and network services, Information Technology and Services (ITS) provides students with a variety of support options:

- General information about SU computing and services offered by ITS can be found by searching the ITS public web site at <http://its.syr.edu>.
- Help with NetID account issues is available on the ITS NetID Services web page at <http://netid.syr.edu>.
- Students, faculty and staff can visit the ITS Service Center. Center location, hours and services are available on the ITS web site at <http://its.syr.edu/support/student.cfm>.
- Students, faculty and staff can call the ITS Service Center at 315-443-2677, or e-mail [help@syr.edu](mailto:help@syr.edu).
- Online support information is available at <http://answers.syr.edu>.

## Health Services

Located on campus at 111 Waverly Avenue, Syracuse University Health Services (SUHS) specializes in college health and serves the health care needs of SU and SUNY ESF students. SUHS provides student-centered ambulatory health care. On campus services include:

- Office visits
- Immunizations, vaccines
- Laboratory
- Ambulance & nonurgent medical transport
- Travel medicine
- Nutrition Counseling
- Pharmacy
- Health education
- Public health monitoring and oversight

Office visits are provided by appointment. To make an appointment, call 315-443-9005.

Xray services and referral for specialty consultation can be arranged by the medical provider.

### Confidentiality

Medical records are maintained for all students and all information is kept confidential. Protected health information can ONLY be released with written consent of the patient.

### Ambulance

Syracuse University Ambulance (SUA) provides basic life-support-level emergency medical and other services to the SU and SUNY ESF communities. For ambulance service, call 711 from a campus phone, #SU from a cell phone, or 315-443-4299.

### Health Insurance

The University strongly recommends that students carry health insurance to cover expenses not covered by the Health and Wellness Fee and medical expenses incurred outside of Health Services such as specialized care, emergency room care, and hospitalization. Students should always carry their health insurance information with them. For more information, call 315-443-2668.

### Immunization Requirements

Proof of immunity to measles, mumps, and rubella (which may be obtained by contacting your high school or primary care physician) and a completed response form related to meningococcal meningitis vaccine are required by New York State public health law.

The Health History and Immunization Form must be sent or faxed (315-443-9010) to Health Services prior to a student's arrival on campus. If these documents are not received prior to arrival, students will risk strict administrative consequences, including the inability to register for classes.

If you do not have the information available to complete this form, or have questions, or concerns, please contact Health Services at 315-443-9005.

Additional information is available at [health.syr.edu](http://health.syr.edu)

## Career Services

Suite 235, Schine Student Center  
 (315) 443-3616  
[careerservices.syr.edu](http://careerservices.syr.edu)

Career Services is here to help students design their college experience and apply it to the world of work. From deciding on a major to searching for internships to preparing for interviews, Career Services provides individualized career guidance. Additionally, the office hosts large-scale events and programs that connect students with employers and SU alumni in their desired career fields.

Students are encouraged to utilize both the central Career Services office in the Schine Student Center, as well as the career office in their home school/college. Visiting both offices early in their college careers is recommended.

### A brief description of services:

Career advising and guidance. Through advising sessions, formal assessments, and informational resources, the office's career counselors can help students gain clarity in their academic and career interests. For students who know exactly what field they wish to pursue, counselors can assist in strategizing the internship/job search process. They can also help students build application documents such as resumes and cover letters, and strengthen interview skills. One special service provided by the office is the registration of internships for academic credit (discussed in more detail in Elective Internships).

Alumni Networking. 'CuseConnect is a valuable resource for students as they explore careers and break into the working world. 'CuseConnect is a LinkedIn group that allows current students to connect with, and learn from, SU alumni in their particular career fields. Each summer, SU Success In The City networking events allow students to meet with mentors and other established SU alumni in several geographic locations across the country, including New York City, Boston, Los Angeles, Washington D.C., and Chicago.

Employer Connections. Each semester, Career Services hosts large-scale career fairs to connect students with employers in their desired industries. Typically, more than 100 employers attend these fairs, seeking to hire for internship and full-time positions. Additionally, Career Services manages OrangeLink, a searchable database which stores all of the internship and job postings submitted to SU from employers. OrangeLink, accessible to all SU students and alumni, is a particularly effective way to identify and apply for relevant positions.

Career Services also regularly provides workshops for classes, student organizations, residence halls, and other groups on campus.

For more information about Career Services, or to schedule an appointment with a career counselor, please call (315)443-3616.

## Syracuse University Internship Opportunities

Elective Internships at Syracuse University

235 Schine Student Center, 315-443-3616

<http://careers.syr.edu/internships.htm>

The Career Services office in Schine Student Center helps students find and arrange local and national internships (whether they carry academic credit or not). Internships may be taken during any semester or summer session. Career Services facilitates internships in most career areas and makes information about internship options available to graduate and undergraduate students from across the University. Students who want to receive academic credit for their internship are subject to the provisions and regulations of the school or college in which they are enrolled.

Elective internships can provide students with opportunities to apply what they have learned in the classroom, explore career options, develop specific career skills, and become involved with community service. The specific role of the intern varies with each host organization, depending upon the student's goals, objectives, and skills and the organization's needs and resources.

Supervisors in the host organization guide and monitor the intern's work at the internship site. If the internship is taken for academic credit, then at the end of the internship the supervisor evaluates each intern's work. This becomes part of the faculty member's final evaluation of student achievement.

Every academic credit internship is guided by a faculty sponsor, a faculty member who has expertise relevant to the internship. The sponsor helps the student set goals for the internship and decides on the method of evaluating the experience. Interns may be required to keep journals, complete portfolios, or work on projects and papers. The faculty sponsor also awards the grade for the internship.

### INTERNSHIP OPPORTUNITIES

Students can find pre-existing internships in many fields. In addition students can often develop their own internships, each of which must be approved by their faculty sponsor and academic program. Internships may be taken during the fall or spring semester, over winter break or during summer sessions, either in the Syracuse area, elsewhere in the United States or abroad.

### ACADEMIC CREDIT

Once accepted for an internship, students must complete a learning proposal that describes the goals and activities planned for the internship and an online supplemental information (and waiver) form.

Internships for elective academic credit require at least 45 hours of internship work for each credit earned. Thus, during a regular 15-week semester, an intern may earn three credits by working an average of 9 hours a week. During summer sessions, work schedules vary widely and often include more than the minimum number of hours. All internship hours worked under the oversight of the faculty sponsor are considered part of the internship. The number of credits are determined by the specific department, school or college in which a student is enrolled. On average students register between 1 and 6 credits.

Work schedules are arranged by the interns and their site supervisors. The total number of credits awarded depends upon the nature of the tasks and responsibilities involved as well as the number of hours worked and in summer, the student's financial resources.

During fall and spring semesters, full-time undergraduate students may include internship course credits as part of their regular course load, which allows up to 19 credits without incurring additional tuition charges. Undergraduates accepted for summer sessions internships pay tuition at the rate set for other summer credits. All graduate students and all University college students taking internships for credit pay tuition at the rates set for other credits.

Interns must be registered during the semester or summer session in which their internships take place. Retroactive credit is not granted.

For further information about local and national internship opportunities, program policies, and application and registration procedures, contact the Career Services office in Schine Student Center, or visit the Career Services web site, <http://careerservices.syr.edu>.

## Interdisciplinary And Specialized Study

Syracuse University has long promoted the development of special programs and research groups, many of an interdisciplinary nature. Not only does Syracuse offer a wide array of interdisciplinary programs of study, but many individual courses provide students with considerable flexibility in developing their academic programs. Students enrolled in certain programs at Syracuse may also take selected courses at one of the two SUNY institutions adjacent to

the campus, the College of Environmental Science and Forestry and SUNY Upstate Medical University. Detailed descriptions and requirements of these programs are given in the appropriate colleges' and schools' listings in this catalog.

The interdisciplinary network at Syracuse also encompasses faculty members who serve in dual capacities, holding joint appointments in more than one department within the University or at other institutions. For example, some School of Education faculty members regularly instruct classes in the Maxwell School of Citizenship and Public Affairs and vice versa. Other faculty members hold external appointments in addition to their posts at the University.

### Graduate Study

Generally, graduate students select a program of study within one academic unit that leads to a degree conferred by the Graduate School. Students may also choose to pursue formal joint-degree programs. In such cases, the student is enrolled in more than one school or college. A dually enrolled student must meet the major requirements in each school. Examples of dual programs are the law/public administration (J.D./M.P.A.) program, the law/library science (J.D./M.S.) program, the law/business administration (J.D./M.B.A) program., and the law/cultural foundations of education (J.D./M.S) program, law/forensic science (J.D./M.A.), and law/computer science (J.D./M.S.).

Similar in concept to joint degree programs are concurrent degree programs, which also allow students to pursue programs of study in more than one discipline simultaneously, often with fewer total credit requirements than the two separate degrees. This plan leads to two degrees, one in each program of study. Concurrent degree arrangements are also available to Syracuse University graduate students and SUNY College of Environmental Science and Forestry students who wish to combine the study of public administration, law, management, education, or public communications with study in environmental science and forestry.

Similarly, The Master of Public Health (M.P.H) degree is a collaborative program, sponsored jointly by SUNY Upstate Medical University (UMU) and Syracuse University (SU). Participating colleges at Syracuse University include the Maxwell School of Citizenship and Public Affairs, the College of Human Ecology, L.C. Smith College of Engineering and Computer Science, and the College of Law.

Under the terms of a formal Scholar Exchange Program, Syracuse graduate students may avail themselves, for up to one year of study, of classes offered by Cornell University or the University of Rochester in addition to the courses and programs offered by Syracuse University.

## The CASE Center

The Center for Advanced Systems and Engineering (CASE) is a NYSTAR-designated Center for Advanced Technology (CAT) funded by New York State to support innovative, interdisciplinary research in complex information-intensive systems. CASE's mission is to catalyze growth in the state's high-technology economy providing expertise in applications related to complex behavioral, information, and communication systems. CASE's current technical focus areas include cognitive wireless communication, data fusion, data mining, command and control, security and assurance, bioinformatics, intelligent computing, and sensor network/management. These focus areas change and expand often as CASE engages new faculty and industry partners. CASE also facilitates university-industry collaborative research; brings together interdisciplinary teams from industry and academia to foster innovation; identifies funding opportunities and assists in developing and delivering successful proposals and projects.

CASE serves as an access point for industry to engage the University, supporting co-op and internship programs for students as well as sponsored research projects. Through CASE, graduate students with a variety of backgrounds can work with advanced information research and technology. In addition to close collaborations with faculty scientists and engineers, CASE offers students opportunities to gain practical real-world experience working directly with leading private sector companies in a wide range of industries. For students interested in entrepreneurship, CASE also offers a unique chance to participate first-hand in the launch of high-potential start-up companies through its on-campus incubator. A CASE experience can significantly enhance students' professional development and career options.

## The Graduate School

Ben Ware, Dean  
Gabrielle Chapman, Associate Dean  
207 Bowne Hall, 315-443-2543  
gradsch.syr.edu  
grad@syr.edu

Graduate study and research have been recognized as a critical piece of Syracuse University's mission since its inception in 1870. Today, every school and college at Syracuse offers graduate study, and the University awards approximately 1,700 master's degrees and certificates of advanced study and 150 doctoral degrees annually. A complete listing of graduate degree programs can be found in the Academic Offerings Tab section in this catalog.

Individual graduate programs are administered by departments or interdisciplinary committees and are subject to approval by the appropriate schools and colleges and by the University Senate. These policies and standards are administered by the Graduate School. All postbaccalaureate degrees are awarded through the Graduate School, with the exception of the J.D. degree, which is awarded through the College of Law.

Graduate students will learn from a full-time faculty of more than 800 scholars, many of them internationally or nationally recognized in their field, and will assist faculty both in the classroom and with important research initiatives.

All Syracuse University graduate degree programs, with the exception of law, are organized under the auspices of the Graduate School. Applications for admission are submitted to the Graduate School, which also confers degrees upon graduation. The graduate degree programs themselves, however, are offered by faculty of the University's 12 academic schools and colleges. This unique organizational structure fosters intellectual collaboration and exploration across the disciplines while at the same time recognizing the highly specialized nature of graduate-level academic work.

Requests for information about graduate programs should be directed to the specific academic units offering those programs. Questions about University-wide policies should be directed to the Graduate School.

## Syracuse University Graduation Rate

In compliance with the federal Student-Right-to-Know and Campus Security Act, and regulations of the U.S. Department of Education, Syracuse University provides the following information to current and prospective students: Of the cohort of full-time degree-seeking undergraduate students who first enrolled at Syracuse University in fall 2007, 81.1 percent had earned their bachelor's degrees as of August 2013. These beginning and end dates comprise 150 percent of the normal length of full-time study (4 years) needed to complete a typical undergraduate degree program. While this calculation meets the act's requirements for determining a graduation rate, Syracuse University recognizes that many students for diverse reasons are unable or choose not to complete their degrees in a continuous sequence of full-time enrollment and, therefore, that the rate may not accurately reflect the commitment and achievement of its students. Moreover, the act's stipulation that the graduation rate be that of the cohort of entering full-time students leaves out the significant population of part-time students who constitute an important part of the Syracuse University community.

## Adjunct Faculty And Teaching Assistants

### ADJUNCT FACULTY BY SCHOOL, DEPARTMENT, OR DIVISION

A & S- Curriculum/Instruction	2
A & S- Writing Program	4
African-American Studies	4
Architecture	6
Art & Music Histories	1
Arts & Sciences - Honors	19
Biology	3
BMC Engineering	1
Civil & Environmental Engineering	4
Communication Rhetorical Study	4
Communication Sciences & Dis	3
Counseling & Human Services	3
Cultural Fndtn-Intergrp Dialog	1
Cultural Foundations Ed Curric	2
CVPA-Drama	19
CVPA-Foundation	10
CVPA-School of Music	42
Department of Art at Comart	5
Department of Art at Shaffer	6
Ed-Instructional Technology	3
Ed-Teaching & Leadership	7
Ed-Teach & Ldrship-Art Eductn	1
Ed-Teach & Ldrship Math	1
Ed-Teach & Ldrship Music	1
Elec Eng & Computer Science	7
English	1
Exercise Science	24
FALK Child & Family Studies	5
FALK Food Studies	1
FALK Marriage & Family Therapy	2
FALK Nutrition Sci & Dietetics	3
FALK Public Health	1
FALK Social Work	13
Fashion & Design Technology	2

Forensic Science Institute	5
History	1
Information Studies-Dean	36
International Relatns-Wash DC	2
Languages, Lit & Linguistics	26
Law College	12
Mathematics	12
Maxwell Dean's Office	3
Mech and Aerospace Engineering	2
Moynihan Institute	1
Philosophy	2
Psychology	6
Public Admin & International Affairs	3
Public Affairs	1
Public Communications	31
Public Communciations - SULA	4
School of Design	14
School of Management	22
Sociology	2
Transmedia Studies	11
UC Summer Programs Faculty	1
University College-Fin Std Sp	2
University College-SCP Gen Ad	15

TA'S BY SCHOOL, DEPARTMENT, OR DIVISION

A & S - Curriculum/Instruction	4
A & S - Women's Studies	3
A & S - Writing Program	20
AASC	1
African-American Studies	8
Anthropology	14
Architecture	31
Art & Music Histories	4
Biology	25
BMC Engineering	12
CVPA-Foundation	8
CVPA-School of Design	1
CVPA-School of Music	15
Chemistry	61
Civil & Environmental Engineering	13
Communication Rhetorical Study	10
Communication Sciences & Dis	3
Counseling & Human Services	7
Cultural Foundations Ed Curric	6
Department of Art at Comart	14
Department of Art at Shaffer	6

Earth Sciences	23
Economics	29
Ed-Instructional Technology	4
Ed-Teaching & Leadership	13
Ed-Teach & Ldrship-Art Eductn	2
Ed-Teach & Ldrship Math	1
Ed-Teach & Ldrship Music	2
Ed-Teach & Ldrship Sci Teach	4
Elec Eng & Computer Science	35
Engineering-Dean's Office	1
English	47
Exercise Science	9
FALK BMW Child Dev. School	2
FALK-Child and Family Studies	8
FALK-Nutrition Science & Dietics	11
FALK-Public Health	4
FALK-Sport Management	4
Geography	20
Higher Education	1
History	23
Information Studies-Dean	3
Languages, Lit & Linguistics	19
Mathematics	41
Maxwell Dean's Office	5
Mech and Aerospace Engineering	20
Philosophy	23
Physics	25
Political Science	32
Psychology	22
Psychology Service Center	1
Public Communications	5
Reading & Language Arts	7
Religion	17
School of Management	27
Science Teaching	2
Sociology	15
Transmedia Studies	13
UC Summer Programs Faculty	3
University College-SCP Gen Ad	55

## Syracuse University Roster

### University Officers

Each officer's year of appointment to the University staff is given in parenthesis.

Kent Syverud, B.A., J.D., (2014)

Chancellor and President

Eric F. Spina, B.A., M.A., Ph.D. (1988)

Vice Chancellor and Provost

Louis G. Marcoccia, B.A., M.S., C.P.A., Ed.D. (1975)

Executive Vice President and Chief Financial Officer

TBA

Comptroller

David J. Smith B.S., M.B.A., C.F.A. (2013)

Treasurer

#### Academic Officers

Andria Costello Staniec, B.S., M.S., Ph.D. (1999)

Associate Provost for Academic Programs

Christopher Sedore, B.S. (1991)

Senior Vice President for Enrollment Management

K. Matthew Dames, B.S., M.S., J.D., Ph.D. (2008)

Interim Dean of the Libraries and University Librarian

Gina Lee-Glauser, B.S., M.S., Ph.D. (2001)

Vice President for Research

#### Schools and Colleges

School of Architecture

Michael A. Speaks, Dean

College of Arts & Sciences

Karin Ruhlandt, Interim Dean

School of Education

Joanna O. Masingila, Interim Dean

College of Engineering & Computer Science

Laura Steinberg, Dean

David B. Falk College of Sport and Human Dynamics

Diane Lyden Murphy, Dean

School of Information Studies

Liz Liddy, Dean

College of Law

Hannah Arterian, Dean

Martin J. Whitman School of Management

Kenneth Kavajecz, Dean

Maxwell School of Citizenship and Public Affairs

James B. Steinberg, Dean

S.I. Newhouse School of Public Communications

Lorraine Branham, Dean

College of Visual and Performing Arts

Ann Clarke, Dean

## Student Privacy Rights (FERPA)

### Annual Notification of Rights Under the Family Educational Rights and Privacy Act

Syracuse University fully complies with the federal Family Educational Rights and Privacy Act and its implementing regulations, each as amended (collectively, “FERPA”), and with guidelines recommended by the American Association of Collegiate Registrars and Admissions Officers. FERPA gives students certain rights with respect to their education records. These rights include:

#### I. The right to inspect and review the student’s education records.

Students should submit to the University Registrar (106 Steele Hall, Syracuse University, Syracuse, NY 13244-1120) a written request that identifies the record(s) they wish to inspect. The University Registrar will make arrangements for access, excluding records and documents considered exceptions or to which a student has waived his or her right of access, and notify the student of the time and place where the records may be inspected. Access will be provided within a reasonable time, not to exceed 45 days after the Registrar’s receipt of the student’s request.

#### II. The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading, or in violation of the student’s privacy rights.

Students who wish to ask the University to amend a record should obtain a Request to Amend or Remove Education Records form from the Registrar’s Office and clearly identify the part of the record they want changed and specify why it is inaccurate, misleading or in violation of their rights of privacy. Note that this does not include a right to contest grades or other substantive matters accurately reflected in the records. Thus, this procedure may not be used to change a grade in a record unless the grade assigned was inaccurately recorded.

If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and of the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when he or she is notified of the right to a hearing. If the hearing results in a final determination not to amend the record, the student is permitted to place a statement with the record commenting on the contested information, stating his or her disagreement with the decision not to amend the record, or both.

#### III. The right to provide written consent before the University discloses personally identifiable information from the student’s education records, except to the extent that FERPA authorizes disclosure without consent.

A student has the right to consent to the disclosure of personally identifiable information contained in his or her education records, except to the extent that FERPA authorizes disclosure without consent. Set forth below is information about some of the circumstances in which FERPA authorizes such disclosures. The University reserves the right to make disclosures of information from education records without a student’s consent in these and other circumstances in which such disclosures are permitted by FERPA.

##### A. The University may disclose education records without a student's prior written consent to school officials with legitimate educational interests.

A school official is:

1. a person employed by the University in an administrative, supervisory, academic or research or support staff position;
2. a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent);
3. a person serving on the Board of Trustees;
4. a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks; or
5. a person volunteering or otherwise performing services for the University.

A school official has a “legitimate educational interest” when he, she, or it has a need to access student education records for the purpose of performing an appropriate educational, research, administrative or other function for the University.

##### B. The University may disclose education records without consent to officials of another university, college or school in which a student seeks or intends to enroll, or is already enrolled, for purposes of the student’s enrollment or transfer.

C. The University may disclose education records without consent to parents of a dependent student as defined by the Internal Revenue Service, when proof of dependency has been provided. A “parent” is a parent, guardian, or someone acting as a parent who meets the IRS standard. (Note: Students should refer to their individual school/college policies concerning parental notification of information regarding academic misconduct and/or academic performance.)

D. The University may disclose education records without consent to appropriate parties in connection with an emergency if knowledge of the information is necessary to protect the health or safety of the student or other individuals.

#### IV. The right to prevent disclosure of personally identifiable information that Syracuse University has designated as “Directory Information.”

Unless a student has followed the steps described below, the University may disclose “directory information” without consent in accordance with the provisions of FERPA. Directory information is defined as that information which would not generally be considered harmful or an invasion of privacy if disclosed. Syracuse University considers the following to be directory information:

Name\*  
Current address and phone number  
Permanent address and phone number  
SU email address\*  
  
Academic awards and honors  
Athletic participation  
Class/level\*  
Dates of attendance  
Degree(s) earned and date(s)  
Full/part-time status  
Majors(s)/degree program(s)  
Photograph or other visual image  
Prior postsecondary institutions attended  
SU ID number  
SU school/college(s)\*

\* Asterisked items are displayed in the University's online directory

Students may block the public disclosure of directory information (in whole or in part) by filing a Request to Prevent Disclosure of Directory Information form with the Office of the Registrar, 106 Steele Hall. Requests may be filed at any time, and remain in effect permanently (including after departure from the University) until removed, in writing, by the student. The Registrar's Office will provide information about additional steps that must be taken by students who wish to prevent release of information regarding athletic participation and announcements of academic achievements to their hometown newspaper(s).

Filing of a Request to Prevent Disclosure will also prevent information from loading to Blackboard, an online course management system used in many SU classes, and may make a student ineligible for SUm ail, SU's student e-mail system. For such students who are required to use Blackboard for one or more classes, the Registrar's Office will provide information about the additional steps that must be taken. Instead of SUm ail, those who file a Request to Prevent Disclosure that includes their SU e-mail address will be provided an official SU e-mail account in the University's administrative e-mail system.

Students should carefully consider the consequences of a decision to prevent disclosure of Directory Information. Regardless of the effect upon students, the University assumes no liability as a result of honoring instructions that such information be withheld.

V. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Syracuse University to comply with the requirements of FERPA.

Any student who has reason to believe that the University is not complying with FERPA should inform the University Registrar in writing. The Registrar shall promptly review all such allegations and initiate appropriate actions. In addition, students have the right to file complaints with the United States Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. Complaints may be submitted in writing to:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington DC 20202-5920  
Phone: 1-800-872-5327

For additional information about the University's FERPA policy, see <http://supolicies.syr.edu/ethics/ferpa.htm>. Questions about FERPA, students' privacy rights, and compliance procedures may be directed to the Office of the Registrar, 106 Steele Hall, Syracuse University, Syracuse, NY 13244-1120, 315 443-2422.

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Related Policy: Computer Law ( from item VII of SU Computing and Electronic Communications Policy)

Under Article 156 of the New York State Penal Code, criminal sanctions are imposed for offenses involving computers, software, and computer data. The offenses include unauthorized use of the computer, computer trespass, computer tampering, and unlawful duplication or possession of computer-related material. Improper or unauthorized access to, or release or manipulation of, any student record in such form is included in such offenses. All computers, software, data, business records, and student records of the University in any form, electronic or paper, belong to the institution. Any person committing an offense with respect to them may be subject personally to criminal sanctions and other liability. Federal laws may also apply to some circumstances.

## Distance Learning Students - Information

### Registration of Distance Programs

Syracuse University's degree and certificate programs delivered through distance education are registered with the New York State Education Department (NYSED). In addition to NYSED, some other states' governing agencies require registration of our distance programs. We are in the process of registering our programs in those states.

## Maryland

Syracuse University is in the process of registering its distance education programs with the Maryland Higher Education Commission.

### Distance Learning Complaint Process for Out-of-State Students

Pursuant to the United States Department of Education's Program Integrity Rule, Syracuse University is required to provide all prospective and current students with the contact information of the state agency or agencies that handle complaints against postsecondary education institutions offering distance learning or correspondence education within that state.

Students residing in other states while enrolled in a course offered by Syracuse University are encouraged to utilize Syracuse University's internal complaint or review policies and procedures, typically initiated within the academic department of the school or college offering the course, prior to filing a complaint with the state agency or agencies. However, if the complaint is not resolved through these processes, a student may use the following list (current as of May 2014) to identify the office(s) to which a complaint may be filed in the state in which the student resides. The State Higher Education Executive Officers (SHEEO) website provides additional information.

### Alabama

Alabama Commission on Higher Education  
[www.ache.state.al.us](http://www.ache.state.al.us)  
(334) 242-1998 (334) 242-0268

### Alaska

Alaska Commission on Postsecondary Education  
<http://akadvantage.alaska.gov/>  
(907) 465-2962 (907) 465-5316

### Arizona

Arizona State Board for Private Post-secondary Education  
Student Grievance Procedure  
(602) 542-5709 (602) 542-1253

### Arkansas

Arkansas Department of Higher Education  
Student Grievance Procedure (pdf)  
(501) 371-2000

### Colorado

Colorado Department of Higher Education  
Student Grievance Procedure  
(303) 866-2723 (303) 866-4266

### Connecticut

Connecticut Board of Regents for Higher Education  
[www.ctregents.org](http://www.ctregents.org)  
(860)947-1800

### Delaware

Delaware Department of Education  
[www.doe.k12.de.us](http://www.doe.k12.de.us)  
(302) 735-4000 (302) 739-4654

### District of Columbia

Washington DC – Education Licensure Commission  
Student Grievance Procedure  
(202) 442-4343 (202) 442-4465

### Florida

Florida Department of Education

Student Grievance Procedure  
(850) 245-0505 (850) 245-9667

#### Idaho

Idaho Board of Education  
Student Grievance Procedure  
(208) 334-2270 (208) 334-2632

#### Illinois

Illinois Board of Higher Education  
Student Grievance Procedure under Student Information  
(217) 782-2551 (217) 782-8548

#### Iowa

Iowa College Student Aid Commission  
[www.iowacollegeaid.gov](http://www.iowacollegeaid.gov)  
(515) 725-3400 (515) 725-3401

#### Kansas

Board of Regents  
Student Grievance Procedure  
(785) 296-4917 (785) 296-7052

#### Kentucky

Kentucky Council on Post-secondary Education  
Student Grievance Procedure  
(502) 573-1555 (502) 573-1535

#### Louisiana

Louisiana Board of Regents  
Student Grievance Procedure  
(225) 342-4253 (225) 342-9318

#### Maine

Maine Department of Education  
[www.maine.gov/education](http://www.maine.gov/education)  
(207) 624-6600 (207) 624-6700

#### Maryland

Complaints will be investigated by the Office of the Attorney General or the Maryland Higher Education Commission. Complaints should be directed to:

Maryland Attorney General  
Consumer Protection Division  
200 St. Paul St.  
Baltimore, MD 21202

Student Grievance Procedure (pdf)  
(410) 528-8662 (888) 743-0823 (toll free)

#### Massachusetts

Massachusetts Board of Higher Education  
Student Grievance Procedure  
(617) 994-6950 (617) 727-0955

#### Michigan

Michigan Department of Energy, Labor & Economic Growth  
Student Grievance Procedure  
(517) 373-1820 (517) 373-2129

## Minnesota

Minnesota Office of Higher Education  
Student Grievance Procedure  
(651) 642-0567 (651) 642-0675

## Mississippi

Mississippi Commission on College Accreditation  
[www.ihl.state.ms.us/mcca](http://www.ihl.state.ms.us/mcca)  
(601) 432-6198 (601) 432-6225

## Missouri

Missouri Department of Higher Education  
Student Grievance Procedure (pdf)  
(573) 751-2361 (573) 751-6635

## Montana

Montana University System, Montana Board of Regents  
<http://mus.edu/board>  
(406) 444-6570

## Nebraska

Nebraska Coordinating Commission for Post-secondary Education  
[www.ccpe.state.ne.us/PublicDoc/CCPE](http://www.ccpe.state.ne.us/PublicDoc/CCPE)  
(402) 471-2847 (402) 471-2886

## Nevada

Nevada Commission on Post-secondary Education  
Student Grievance Procedure  
(702) 486-7330 (702) 486-7340

## New Hampshire

New Hampshire Post-secondary Education Commission  
Student Grievance Procedure  
(603) 271-3494

## New Jersey

New Jersey Commission of Higher Education  
Student Grievance Procedure  
(609) 588-3226

## New Mexico

New Mexico Higher Education Department  
Student Grievance Procedure  
(505) 476-8400 (505) 476-8453

## North Carolina

North Carolina Community College System, Office of Proprietary School Services  
Student Grievance Procedure  
(919) 807-7146 (919) 807-7164

## North Dakota

North Dakota State Board for Career and Technical Education  
[www.nd.gov/cte](http://www.nd.gov/cte)  
(701) 328-3180 (701) 328-1255

## Ohio

Ohio State Board of Career Colleges and Schools  
Student Grievance Procedure  
(614) 466-2752 (614) 466-2219

#### Oklahoma

Oklahoma State Regents for Higher Education  
[www.okhighered.org](http://www.okhighered.org)  
(405) 225-9100  
Oklahoma Department of Education - Private and Career Schools Office  
(503) 947-5600 (503) 378-5156

#### Pennsylvania

Pennsylvania Department of Education, Division of Program Services  
Student Grievance Procedure  
(717) 783-6137 (717) 783-6139

#### Puerto Rico

Puerto Rico Council on Higher Education  
<http://www.ce.pr.gov/>  
(787) 641-7100 (787) 641-2573

#### South Carolina

South Carolina Commission on Higher Education  
Student Grievance Procedure (pdf)  
(803) 737-2260 (803) 737-2297

#### South Dakota

South Dakota Board of Regents  
Student Grievance Procedure  
(803) 737-2260 (803) 737-2297

#### Tennessee

Tennessee Higher Education Commission  
<http://www.tn.gov/thecc>  
(615) 741-3605 (615) 741-62307

#### Texas

Texas Higher Education Coordinating Board  
[www.theccb.state.tx.us](http://www.theccb.state.tx.us)  
(512) 427-6101

#### Utah

Utah Division of Consumer Protection  
Student Grievance Procedure  
(801) 530-6601 (801) 530-6001

#### Vermont

Vermont State Board of Education  
[education.vermont.gov/index.htm](http://education.vermont.gov/index.htm)  
(802) 828-3135

#### Washington

Washington Higher Education Coordinating Board  
[www.hecb.wa.gov](http://www.hecb.wa.gov)  
(360) 753-7869

#### West Virginia

West Virginia Higher Education Policy Commission  
Student Grievance Procedure  
(304) 558-4016

## Wisconsin

Wisconsin Educational Approval Board

Student Grievance Procedure  
(608) 266-1996 (608) 264-8477

## Wyoming

Wyoming Department of Education  
edu.wyoming.gov  
(307) 777-5712

## Nondiscrimination And EEO Policy

Syracuse University is an equal-opportunity, affirmative-action institution. We do not discriminate on the basis of race, creed, color, gender, national origin, citizenship, religion, marital status, age, disability, or perceived disability, sexual orientation, actual or perceived sex, gender identity or expression, military status, status as a disabled veteran or a veteran of the Vietnam era or any other status protected by applicable law to the extent prohibited by law. This nondiscrimination policy covers admissions, employment, and access to and treatment in University programs, services, and activities.

Syracuse University welcomes people with disabilities and in compliance with Section 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act, does not discriminate on the basis of disability. Services for students with disabilities are coordinated by the Office of Disability Services, Room 309, 804 University Avenue, 315-443-4498 (VOICE), 315-443-1371 (TDD).

Syracuse University supports equal opportunity in compliance with Title VI and Title VII of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972, and does not discriminate on the basis of race, color, national origin, or gender.

Questions about any of the University's equal-opportunity policies, including compliance with Title VI, Title VII, and Title IX, may be directed to the Executive Director of Equal Opportunity, Inclusion and Resolution Services, Skytop Office Building, Syracuse University, Syracuse NY 13244-5300; telephone 315-443-0211.

## Campus Safety

It is Syracuse University's policy to provide anyone, on request, with a printed copy of the University's policies and procedures regarding campus security and safety, as well as crime rates and statistics for the most recent three-year period. A copy of Your Safety and Security at Syracuse University, a handbook that provides this information, is available from DPS. The handbook is updated annually.

The Syracuse University Department of Public Safety will provide upon request all campus crime statistics as reported to the United States Department of Education.

USDOE website: <http://ope.ed.gov/security/>

## Academic Rules

This is the official version of the general academic rules of Syracuse University (SU) effective for the 2014-2015 academic year. The rules are presented alphabetically by topic, reflecting distinctions between undergraduate and graduate rules as appropriate. Both undergraduate and graduate students will find that their individual school/college/department has additional rules that apply. In the case of graduate students, these rules may be more restrictive than the general University rule.

### Additional Sources For Information

There are a number of other sources for information and rules that are important for students. They include, but are not limited to, the following:

Financial Aid Home  
Student Handbook  
SU Abroad  
Tuition, Fees & Related Policies

Also see school, college, and academic department materials and websites.

## Academic Integrity

At Syracuse University, academic integrity is expected of every community member in all endeavors. Academic integrity includes a commitment to the values of honesty, trustworthiness, fairness, and respect. These values are essential to the overall success of an academic society. In addition, each member of the university community has a right to expect the highest standards of academic integrity from all other community members. An individual's academic dishonesty threatens and undermines the central mission of the University. It is unfair to other community members who do not cheat, because it devalues efforts to learn, to teach, and to conduct research. Academic dishonesty interferes with moral and intellectual development, and poisons the atmosphere of open and trusting intellectual discourse. Syracuse University's academic integrity policy and procedures are administered by the Academic Integrity Office in the Division of Academic Affairs, and all schools and colleges (see supplemental policy and procedures for the College of Law).

### ACADEMIC INTEGRITY EXPECTATIONS

Academic integrity is violated by any dishonest act which is committed in an academic context including, but not limited to the following:

**Use of Sources** Plagiarism is the use of someone else's language, ideas, information, or original material without acknowledging the source. Examples of plagiarism:

1. Paper is downloaded from an Internet source and/or obtained from a paper mill.
2. Paper contains part or all of the writings of another person (including another student), copied without citation.
3. Paper contains passages that were cut and pasted from an Internet source, without citation.

While students are responsible for knowing how to quote from, paraphrase, and cite sources correctly, the ability to apply that information in all writing situations is an advanced literacy skill acquired over time through repeated practice. When a student has attempted to acknowledge sources but has not done so fully or completely, the instructor may determine that the issue is misuse of sources or bad writing, rather than plagiarism. Factors that may be relevant to the determination between misuse of sources and plagiarism include prior academic integrity education at Syracuse University, and the program level of the student.

### Course Work and Research

1. The use or attempted use of unauthorized aids in examinations or other academic exercises submitted for evaluation;
2. Fabrication, falsification, or misrepresentation of data, results, sources for papers or reports; in clinical practice, as in reporting experiments, measurements, statistical analyses, tests, or other studies never performed; manipulating or altering data or other manifestations of research to achieve a desired result; selective reporting, including the deliberate suppression of conflicting or unwanted data;
3. Copying from another student's work;
4. Actions that destroy or alter the work of another student;
5. Unauthorized cooperation in completing assignments or examinations;
6. Submission of the same written work in more than one course without prior written approval from both instructors.

### Communications

1. Violating the confidentiality of an academic integrity investigation, resolution, or documentation;
2. Making a false report of academic dishonesty;
3. Dishonesty in requests for make-up exams, for extensions of deadlines for submitting papers, or in any other matter relating to a course.

### Representations and Materials Misuse

1. Falsification of records, reports, or documents associated with the educational process;
2. Misrepresentation of one's own or another's identity for academic purposes;
3. Misrepresentation of material facts or circumstances in relation to examinations, papers, or other academic activities;
4. Sale of papers, essays, or research for fraudulent use;
5. Alteration or falsification of University records;

6. Unauthorized use of University academic facilities or equipment, including computer accounts and files;
7. Unauthorized recording, sale, purchase, or use of academic lectures, academic computer software, or other instructional materials;
8. Expropriation or abuse of ideas and preliminary data obtained during the process of editorial or peer review of work submitted to journals, or in proposals for funding by agency panels or by internal University committees;
9. Expropriation and/or inappropriate dissemination of personally-identifying human subject data;
10. Unauthorized removal, mutilation, or deliberate concealment of materials in University libraries, media, laboratories, or academic resource centers.

## COURSE-SPECIFIC EXPECTATIONS

- A. The instructor of record is responsible for determining and communicating course-specific academic integrity expectations. Instructors of record are responsible for stating, in writing, course-specific expectations, particularly those regarding use of sources and collaboration.
- B. Students are responsible for consulting their instructors for any clarification needed on academic integrity standards, including those set forth in this policy and those that are course-specific.
- C. Collusion is assisting or attempting to assist another in an act of academic dishonesty. Collusion is distinct from collaborative learning, which may be a valuable component of scholarly development. Acceptable levels of collaboration vary in different courses, and students are expected to consult with their instructor if they are uncertain whether their cooperative activities are acceptable.

## TRANSCRIPT NOTATIONS

When an “F” grade for course failure is imposed for an academic integrity violation, the grade on the transcript will be marked with the notation “(X).” The failing grade is counted toward the GPA. If the “(X)” notation is applied for a first violation, it will be removed only upon the student’s completion of an educational program and full compliance with all consequences associated with the violation. After the “(X)” notation is removed, the student may petition to flag the failing grade. If the “(X)” is applied for a subsequent violation, the notation will be permanently retained on the transcript.

Academic integrity violations that do not involve course work may also be noted on a student’s transcript. Such violations appear on the transcript as “Academic Integrity Sanction” with the date the sanction was imposed. If the sanction is applied for a first violation, it will be removed only upon the student’s completion of an educational program and full compliance with all consequences associated with the violation. If the sanction is applied for a subsequent violation, it will be permanently retained on the transcript.

## Academic Renewal

### Undergraduate Students

Undergraduates who are readmitted or admitted (for previously non-matriculated students) to SU with a cumulative GPA of less than 2.0 may apply for academic renewal, if returning after an absence of seven years (14 full fall and spring semesters). Before applying for academic renewal:

- discuss academic consequences with an advisor in your school/college
- if you are receiving or plan to apply for financial aid, discuss the process of academic renewal with a financial aid counselor

During the first semester of your re-admission or admission, complete a contract with your school/college no later than the midterm date of that semester, as published in the academic calendar

- Schools/colleges will review main campus students’ academic renewal requests at the end of the first semester. Unless otherwise noted in the table below, a minimum semester GPA of 2.5 is required for a full-time course load with no I, F, NA, P, V, WD, or missing grades.
- University College students must complete 12 credits within two years (four consecutive fall and spring semesters) and must have attained a minimum cumulative GPA of 2.5, with no I, F, NA, P, V, WD, or missing grades.

There will be no selective review of only certain courses for flagging. If you do not meet your school’s/college’s requirements for academic renewal at the time of review, you may not petition again.

### School/College Rules

Education	A GPA of 3.0 is required for the first semester (full-time students) or first 12 credits (University College students).
Public Communications	Only students who have attempted no more than 30 credits or the equivalent of two full semesters may apply for academic renewal.
Sport and Human Dynamics	A GPA of 3.0 is required for the first semester (full-time students) or first 12 credits (University College students).
Visual and Performing Arts	A 2.8 GPA is required for the first semester (full-time students) or first 12 credits (University College students).

## ACADEMIC RENEWAL AND THE TRANSCRIPT

If academic renewal is approved, your GPA will be reset to 0.00, and the GPA calculation will resume with the courses you take after readmission or admission. The courses you took before academic renewal will still appear on your transcript, but will be flagged (see "Flagging") to remove them from all credit and grade calculations. The notation “(ar)” will reflect that flagging was done under the academic renewal policy.

Your prior coursework will be evaluated in the same manner as transfer credit. Only prior coursework with a grade of C or higher (no C-, D, or F grades) that can be applied toward your degree program will be accepted as a block of credits from your prior record. Grades in these courses will not calculate toward your GPA. If you subsequently transfer to another SU school/college, prior coursework will be re-evaluated.

If you elect academic renewal, then to be considered for University honors at graduation you must complete 60 credits of SU letter-graded courses that can be calculated in your GPA.

## Academic Standing

### Minimum GPA To Continue Graduate Work

#### Graduate Students

Graduate students must earn at least a 2.8 cumulative GPA in the first 30 credits of graduate study at Syracuse University. The academic unit may cancel matriculation if this requirement is not met.

### Class Standing

#### Undergraduate Students

Class standing is determined by the number of SU-earned credits, plus credits accepted for transfer credit and other types of external credit, e.g., AP examination. Class standing is calculated as follows:

Class	Total Cumulative Credits
Freshman	0-23
Sophomore	24-53
Junior	54-83
Senior	84 and above

### Academic Probation

Any student who has a cumulative GPA of less than 2.0 and for whom a more serious action is not appropriate may be placed on probation. You may also be placed on probation if your semester GPA falls below 2.0, or if you fail to meet other criteria for good academic standing as established by your school/college. Each school/college reviews its students' records and determines the appropriate probation actions to be applied from the categories listed below. School/college offices can provide more detailed information about academic policies. If you are under any academic probation your financial aid may be impacted.

Schools/colleges send probation letters that explain the reason for the action, such as low cumulative GPA or number of Incompletes, and specify the conditions under which good academic standing can be regained.

The probation categories are described below and include College Probation; Probation, One-Semester Trial; and Academic Suspension. Schools/colleges may:

- apply any one of the categories at any time, depending on school/college policy and individual student records; categories are not necessarily applied sequentially
- apply an action more than once to the same student

### College Probation

This action applies to a student who has a cumulative average above 2.0, but who fails to meet other school/college criteria for good standing. These criteria include the following:

### School/College Rules

Architecture	Term GPA less than 2.0, a term of architecture courses below 2.0, more than 12 credit hours of Incomplete or NA grades, fewer than 24 credit hours completed in a 12-month period, or insufficient progress toward degree.
Arts and Sciences	Students earning less than a 2.0 semester GPA will be placed on Academic Warning for the following semester. Students who earn less than a 2.0 semester GPA a second time will be placed on Academic Probation. And if they earn less than a 2.0 semester GPA for a third time, they will be placed on Final Probation and they may possibly be suspended from college.
Education	Excessive number of Incompletes, missing grades, and/or limited progress toward degree, and/or students at or below a 2.0 cumulative GPA may be placed on a one-term trial (OTT) at any point in time. Inclusive early childhood special education and inclusive elementary special education: cumulative, content, or education course GPA of less than 2.8; content or education less than 3.0 for music education. Physical education and health and physical education: cumulative GPA below 2.8 or below 3.0 in required professional education courses. Health and exercise science: cumulative or major course GPA below 2.8. Selected studies: cumulative GPA below 2.8. Guidelines are published in the School of Education Undergraduate Handbook.
Engineering and Computer Science	Term GPA less than 2.0. Less than 2.0 in all mathematics, science, and ECS courses taken at SU. Completion of fewer than 12 credit hours in one semester or 24 credit hours within any 12-month period. Failure to maintain satisfactory progress toward degree. In addition to the above conditions, computer science students only: GPA of less than 2.667

	in core courses.
Information Studies	Excessive missing grades, Incompletes, failure to make normal progress, or failure to complete prerequisites for the following semester's registration.
Management	Semester GPA less than 2.0, earning fewer than 12 credit hours in two consecutive semesters, or failure to meet adequate progress standards.
Public Communications	GPA of less than 2.0 in Public Communications courses, or excessive missing grades or Incompletes, or semester GPA below 2.0 for two consecutive semesters, or failure to make normal progress toward a degree.
Sport and Human Dynamics	Students with one or more of the following conditions will be placed on academic probation: semester and/or cumulative GPA below 2.0; excessive number of Incomplete, NA, or missing grades; lack of progress toward degree.
University College	Legal Studies and B.P.S students: Semester or cumulative GPA less than 2.0; less than 2.0 in legal studies courses; excessive number of Incompletes, NA, or missing grades.
Visual and Performing Arts	Semester GPA below 2.0 with cumulative GPA above 2.0; or excessive NAs, Incompletes, or other failure to make normal progress toward a degree.

### Probation, One-Semester Trial

If your school/college determines that you have serious deficiencies in progress toward your degree requirements, usually including a cumulative GPA below 2.0, the school/college may impose a one-semester trial specifying that certain requirements be met by the end of the term. Failing to meet these requirements may result in suspension. Each school/college's standards are available at the school/college undergraduate office.

### Ineligible To Continue

If your school/college sets specific conditions for continuing registration, this action may be applied to cancel early registration and/or prevent participation in registration for new coursework until the requirements are met. It may also apply in situations where full-time status is no longer allowed, but part-time status is permitted. A student who is ineligible to continue may have a GPA either above or below 2.0.

### Academic Suspension

Academically suspended students are officially withdrawn from the University. Students face academic suspension for failing to meet the conditions established by any previous probation action or for seriously departing from standards required for good standing. GPA may be either above or below 2.0 at the time of suspension. If a suspension action is taken, the school/college will send a letter:

- specifying the reason for the action
- explaining appeal procedures

The next semester's registration will be cancelled or prevented, and future semester registrations won't be allowed unless:

- you have successfully appealed your suspension; or
- you have been accepted to a new school/college as an internal transfer; or
- you have been readmitted to the school/college that suspended you (See "Leave of Absence, Withdrawal, and Readmission").

### Advanced Credit Examinations

Advanced Credit (AC) examinations provide matriculated students the opportunity to be tested on, and to receive credit for, knowledge and skills already achieved that would be covered by regular SU courses. You must petition the appropriate academic department for approval to take an AC exam; the department is under no obligation to approve the request. The exams are administered and graded by faculty. Each Advanced Credit exam carries a fee, at an amount published each year in "Tuition, Fees, and Related Policies." For undergraduates, your school/college may accept a maximum of 30 semester hours from a combination of SU Advanced Credit exams and any other credit (e.g., AP exams, experiential learning). Advanced Credit exams

- must be associated with SU course subjects and numbers
- are not appropriate for all courses, such as Selected Topics and those that require a Proposal for Independent Study
- may not be applied to the residency requirement (see "Residency Requirement")
- may not be taken in a course for which credit was already earned
- are not considered as retaken courses for flagging purposes [see "Flagging (Removing courses from calculation toward the degree and GPA)"]
- will be removed from the official transcript if an equivalent course is subsequently taken at SU and passed
- are recorded on the transcript by credit hours and grade, and contribute to total credit hours earned and cumulative degree GPA

### Graduate Students

Graduate students who wish to obtain credit toward advanced degrees for knowledge in a field essential to their programs of study but acquired by means that preclude formal transfer to SU may petition for an Advanced Credit examination in a course or courses covering the relevant area of study. The petition requesting an Advanced Credit examination must state the basis for the belief that the student has attained competence at the graduate level in the specified academic area and be accompanied by a statement from the student's department supporting the petition and accepting responsibility for preparing and administering the examination. The minimum passing grade for a graduate AC Exam is B.

### Undergraduate Students

Approval of your academic advisor, the appropriate department chair, and your home school/college is required in order to take an Advanced Credit

examination. You must earn a grade of C or higher to pass the exam. AC exams count toward the 30 semester hours maximum credits that will be accepted from a combination of AC exams, experiential learning, extra-institutional credit, and external examination programs toward your total number of credits required for graduation.

## Attendance In Classes

Attendance in classes is expected in all courses at SU. Class attendance requirements and policies concerning nonattendance are established by the instructor(s) of each class.

## Competency And Proficiency Examinations

Advanced standing, exemption, or placement examinations may be given by certain departments, e.g., mathematics; English; and languages, literatures, and linguistics, to determine where students should be placed in a certain sequence of courses.

No credit is given for these examinations, and no requirements are waived by successfully completing placement or advanced standing examinations. You may, however, be excused from prerequisite courses on the basis of these examinations.

## Consortium Agreements

SU has formal consortia arrangements through SU Abroad, the Consortium for Culture and Medicine, and the Graduate Scholar Exchange Program. Except for these, SU does not allow students to enroll at other institutions under an individual consortium arrangement, nor does it award financial aid to students who choose to enroll at other institutions, e.g., while on a leave of absence.

If you are a matriculated SU student who wants to study abroad through a program not directly administered or sponsored by SU Abroad, contact the SU Abroad office at least three months before the start of the program to request consideration for a consortium agreement, which is required if you want to have the classes you take abroad count toward your degree program and continue to receive financial aid during your overseas program.

If approved for a consortium agreement, credit earned through such programs is generally treated as SU credit. Your school/college and/or department will determine acceptable courses and how they will be applied.

## Courses

### Course Numbering System

Remedial, developmental, and noncredit courses	000-099
Freshman-level courses	100-199
Sophomore-level courses	200-299
Junior- and senior-level courses	300-499
Joint undergraduate-and graduate-level courses	500-599
First-year graduate-level courses	600-699
Second- and third-year graduate-level courses	700-899
Readings, research, and individual study courses at the doctoral level only	900-996
Master's thesis	997
Individualized study at the graduate level	998
Doctoral dissertation	999

Refer to the "Guide to Reading Course Descriptions" section of the course catalog for further explanation.

## Credit

The unit of credit at SU is the semester hour. Each semester hour represents one class period of 50 minutes per week for 15 weeks, or the equivalent. Laboratory or field courses require a minimum of two or three class periods a week for each credit hour.

This section of the Academic Rules describes certain options for credit that may apply toward some students' degree and certificate programs. Transfer credit, experiential learning, external exams, and restricted graduate credit are among the examples described below. See the Course Catalog and confer with your academic advisor for a complete overview of credit requirements needed to fulfill your degree or certificate requirements.

### Restricted Graduate Credit

Restricted graduate credit is credit earned at the graduate level by students who aren't matriculated in a graduate program. Restricted credit must be converted to graduate credit in order to be included in a graduate degree or certificate program. All coursework taken as a non-matriculated student automatically calculates toward the graduate GPA unless a petition to flag the courses is submitted to and approved by the Graduate School, after matriculation in a degree or certificate program.

### Conversion To Graduate Credit

You may apply to have up to 12 credits of restricted graduate credit converted to graduate credit if you meet all of the following conditions:

- you become matriculated in a graduate degree or certificate program
- your overall average in all SU graduate work is at least 2.8
- you earned a B or better in each course
- your courses are part of a degree or certificate program approved by your department
- you have completed your coursework within the time limit allowed for the degree

Restricted graduate credit earned during the term in which you become matriculated in the Graduate School is converted automatically to graduate credit.

#### School/College Rules

Education	In the higher education degree program, no more than six hours of restricted graduate credit may be converted to graduate credit. In all other graduate degree programs, no more than nine hours of restricted graduate credit may be converted to graduate credit.
Management	No more than six credits of restricted credit may be converted to graduate credit.

### Counting Credits Towards Multiple Degrees And/Or Programs

NYSED limits the counting of credits toward multiple degrees and/or programs to protect the academic integrity of each degree and/or program. When a student is counting credits towards multiple degrees and/or programs, in the same or closely related field(s) and the coursework makes up an integral part of the degrees and/or programs, the following restrictions apply:

1. In no instance shall course credit be counted more than twice in satisfaction of the requirements for multiple degrees and/or programs.
2. In order to earn two or more distinct degrees and/or programs (including Certificates of Advanced Study (C.A.S)), you must earn a minimum of 80 percent of the combined total of SU credits normally required for each of the degrees. However, in cases where the C.A.S. curriculum is embedded within another degree program, credit from the C.A.S. may be counted in its entirety for the C.A.S. and other degree.
3. Two 12-credit C.A.S.s may not be awarded for less than 21 credits.
4. Two 30-credit Master's degrees will not be awarded for fewer than 51 credits, nor will three 30-credit Master's degrees be awarded for fewer than 75 credits.
5. You must be admitted to the degree program in each of the awarding academic units.

Note: These restrictions do not apply to joint/dual programs with the College of Law or the Master of Philosophy degrees.

SUNY College of Environmental Science and Forestry and SU concurrent study: SU and SUNY ESF have agreements that encourage concurrent master's study in environmental science and forestry with SU degree work in public communications, law, management, public administration, and certain education programs. Other SU fields may also qualify. Contact your school/college, the Graduate School and SUNY ESF for specific requirements and procedures regarding concurrent degree work and counting of credits.

### Undergraduate And Graduate Coursework

#### Undergraduate Students

If you are an undergraduate (matriculated or non-matriculated) who would like to take graduate-level courses at SU that would apply toward a future SU graduate degree or certificate program, you must petition to register for these courses. Such courses will earn "restricted graduate credit" until you register as a matriculated SU graduate student.

After you matriculate, and with approval of a petition, the graduate credits earned while an undergraduate will be transferred into your graduate record, subject to the conversion to graduate credit rules, as a block of credit hours. These credits will not be applied toward the SU undergraduate degree. They will be flagged on the undergraduate section of the transcript and removed from calculations there. Under no circumstances will grades earned in these flagged courses calculate in either the undergraduate or graduate GPA.

No credit that is applied to the undergraduate degree may be applied also to the graduate degree, unless such double-counting falls under the explicit articulation of a combined bachelor's and master's degree program that has been approved by and registered with NYSED.

#### Calculation Of Credit Hours

The following calculate toward cumulative credit and grade totals on your academic transcript:

- letter grades and Incompletes
- a course in which a "Pass (P)" was earned is included in total earned credits but not grade point calculations

Calculations made by schools/colleges to determine progress toward degree requirements may exclude courses appearing on your transcript that are not applicable to the specific degree program. As noted under the flagging rules, courses may be removed from calculation under certain circumstances.

#### Undergraduate Students

With the approval of your home school/college, you may apply as free elective credit up to six credit hours of college-level remedial and developmental courses (numbered 000-099) in which a passing grade was earned toward your degree requirements.

## Flagging (Removing Courses From GPA, Credit And Degree Calculation)

When certain requirements are met, courses may be “flagged,” which excludes them from GPA and semester and cumulative credit hour totals. The flag symbol is noted on the official transcript. Flagging a course may affect financial aid eligibility e.g., flagging a course in which a passing grade was earned may alter the calculation of satisfactory progress. For additional information, see your financial aid counselor.

Once your degree has been awarded, you may not request to flag courses taken before the degree date.

### Flagging Courses That Have Been Retaken

To qualify for flagging, both the original and subsequent course must be taken at SU and have the same course subject and number. A school/college may prohibit you from flagging a lower level course after you have completed with a passing grade a higher level course in the same subject.

If a course is no longer offered under the same subject and/or number, you may petition the school/college in advance to retake the course most nearly equivalent in content and level. Certification by the academic department that the course is a close equivalent--not just a substitution for the degree requirement--is required.

Except as noted in TABLE A, only the credits and grade received in the second course will count.

- Both the original course and the retaken course remain on your transcript.
- A course is repeatable if it may be retaken and counted more than once toward fulfillment of degree requirements. You may not flag courses designated as repeatable, since course content is different each time the course is offered. Exceptions:
  - Selected Topics courses (with numbers ending in “00”) may be flagged if they have exactly the same title
  - Proposal for Independent Study courses may be flagged when the course subject, number, description, and requirements are the same
- Advanced Credit exams or courses that merely substitute for a degree requirement are not considered to be retaken courses for flagging purposes.

### Graduate Students

You may petition your academic unit and the Graduate School to flag the following:

- undergraduate or remedial courses that are not part of your graduate program, such as English as a Second Language
- courses taken while non-matriculated
- when officially changing degree programs, courses that don’t apply to your new degree program under certain conditions. Contact your department for further information.
- when retaking a course in which you earned a grade of C+, C, C- or F, with the approval of your academic unit and the Graduate School. Graduate courses may retaken only once. (Note that unless flagging is requested, both the original course and the retaken course will be included in calculations.)

### Undergraduate Students

Courses that have been retaken will be flagged according to the following rules.

TABLE A Retaken Courses And Flagging Rules

School/College	Retaken Course Rule	Flagging Rule
Architecture	Students may take a course for grade improvement. No Architecture course may be registered for more than three times.	The higher of the two grades is counted in the GPA.
Arts and Sciences	Students may retake a course for grade improvement.	The higher of the two grades is counted in the GPA. For courses retaken more than once, the two earlier grades may be flagged by petition. Flagging, especially when excessive, may have academic consequences. Students are encouraged to speak to their home school/college. Flagging of repeated courses is initiated by the school/college at the conclusion of the semester in which the course was repeated.
Education	Students may take a course for grade improvement. Courses may be attempted only three times.	The higher of the two grades is counted in the GPA. For courses retaken more than once, the lower grade may be flagged by petition.
Engineering and Computer Science	Any course with a D or F may be retaken. A course may be flagged up to two times; the higher of the two grades will be counted in the GPA.	The higher of the two grades is counted in the GPA. For courses taken more than once, the two earlier grades may be flagged by petition.
Information Studies	Any course with a D or F may be retaken once. Retaking a course more than once or	The higher of the two grades is computed in the GPA.

	retaking a course in which a C- or higher grade was earned requires advance approval by petition.	
Management	Students may retake a course for grade improvement. Normally, students may not retake a course after completing a more advanced course in the same area. Students should check with an advisor in the Undergraduate Office before retaking a course.	The most recent grade is used to calculate the GPA, regardless of which grade is higher. Management grades can be flagged only once.
Public Communications	Public Communications courses in which a passing grade was earned may not be retaken.	A grade of F will be flagged only once for a retaken Public Communications course. If a student retakes a Public Communications course in which a passing grade was previously earned, the second grade will be flagged. (For retaken courses outside of Public Communications, the most recent grade is used to calculate the GPA regardless of which grade is higher.)
Sport and Human Dynamics	Any course with a grade of D or F may be retaken once. Departmental exceptions may be considered by advance petition.	Grades in courses can only be flagged once. The higher of the two grades is computed in the GPA.
University College, Bachelor of Professional Studies	Required LGL courses with grades of D or F must be retaken for credit. Individual LGL courses may be retaken only once.	LGL courses with a grade of D or F will be flagged only once.
Visual and Performing Arts	Any academic elective course in which a student has received a grade of D or F may be retaken. A studio course may be retaken only when a grade of F has been received.	The higher of two grades is computed in the GPA.

## Flagging Courses When Changing School/College Or Program

### Undergraduate Students

If you are admitted through intra-university transfer into a different SU school/college, you may petition to flag courses you already completed that can't be included in your new program. You must first meet minimum criteria for admission to the new school/college or program, and can only petition your new school/college to flag courses after admission. If you change programs within your school/college, in rare instances when the new program requires preparation distinctly different from that of the former program, you may petition to have courses flagged that can't be applied toward your new program. Simply changing majors does not qualify for flagging.

Arts and Sciences: Only D and F grades in non-Arts and Sciences courses that were required for the previous program may be flagged at the student's request. A, B, C, and I grades in such courses cannot be flagged.

Education and Management: If you transfer into either of these schools and elect to flag courses that do not apply toward your new program, then you must flag all courses that don't apply.

### Flagging Graduate-Level Courses Taken As An Undergraduate

If you petition to take graduate-level courses that will not apply to your undergraduate degree, you may also petition to flag those courses so that they don't count toward your undergraduate record. If the courses are subsequently accepted as restricted graduate credit toward a graduate program at SU, then they will automatically be flagged on the undergraduate transcript. In that case, credits earned in the courses will count toward the graduate degree requirements, but the grades will calculate in neither the undergraduate nor the graduate GPA.

### Flagging Courses Under Academic Renewal Policy

See "Academic Renewal"

### Transfer Credit

In compliance with NYSED regulations, SU only awards transfer credit for courses that are an integral part of an SU degree program, as determined by the appropriate SU academic unit.

### Graduate Students

At the graduate level, schools/colleges and departments may assess and accept credit

- earned at another regionally accredited graduate school in the United States or at an institution equivalently recognized in another country;
- earned in a course in which the grade earned was at least a B. Coursework completed on a pass/fail basis is not eligible for transfer, unless approved by both the academic unit chair and the dean of the Graduate School; and
- that is an integral part of the degree program.

Transfer credit should be evaluated and posted no later than the end of the semester preceding the semester in which coursework for the degree will be completed. All coursework applied toward a degree must comply with all time limitations.

A maximum of 30 percent of credits counted toward a master’s degree at SU may be transferred from another institution provided that the credits are an integral part of the degree program. Transfer credit can comprise no more than 50 percent of the doctoral coursework. This rule does not apply to dual degree programs and to degree programs that are offered jointly with another university.

### Certificate Programs

A maximum of three credits from a combination of transfer and/or external examinations/extra-institutional and experiential learning will be accepted toward a C.A.S. Exceptions may be granted by petition to the dean of the Graduate School.

### School/College Rules

Information Studies	Up to 15 credits from National Defense University may be applied to the M.S. program in information management.  Up to 15 credits received from the University of Virginia School of Continuing and Professional Studies Certificate in Cybersecurity Management may be applied to the M.S. in Information Management.  Credits completed in approved programs at the Army Signal Center School may be applied to the M.S. in information management, and the M.S. in telecommunications and network management.
Management	Students may transfer a maximum of six credits of elective courses into their M.B.A. or M.S. program from another AACSB-accredited business school. Students must file a petition and receive approval prior to taking the course. Grades from these courses will not be transferred, nor will they count toward the GPA. A grade of B or better is required in the transfer course.
Maxwell	Up to 12 credits from Tsinghua University may be applied to the executive master of public administration.
Public Communications	A maximum of 20 percent of credits counted toward the following master’s degrees in the S.I. Newhouse School of Public Communications may be transferred: advertising; arts journalism; broadcast and digital journalism; communications management; documentary film and history; magazine, newspaper & online journalism; media management; photography; public relations; and television, radio & film.

### Undergraduate Students

Generally, schools/colleges may consider accepting transfer credit from:

- institutions recognized by
  - regional accrediting commissions
  - national accrediting bodies
  - professional organizations that accredit free-standing professional schools and programs within multipurpose institutions\*
  - institutions that are recognized candidates for accreditation
- recognized foreign tertiary-level institutions, chartered and authorized by their national governments, generally through the Ministry of Education
- a formal transfer articulation agreement

\* For students enrolled in an accredited program at a non-accredited institution, only courses within the discipline that is accredited will be considered for transfer credit. General education and other courses from the institution will not be considered.

However, not all schools/colleges accept credit from all of these sources.

SU grants transfer credit based on course content, the quality of your performance, and applicability to your program. Transfer credit is evaluated only for the degree or certificate program to which you’re admitted, and may change if you move into a different SU program. A re-evaluation of transfer credit may also affect your financial aid, especially if your class standing alters. If all of your previous work isn’t accepted for transfer, you may enter SU at a different class level than you had attained at your prior institution. A maximum of 90 credits of transfer credit or a combination of transfer credit and any other credit (e.g., AP exams, experiential learning) will be accepted.

If you plan to take courses at another institution that will transfer back into your SU degree, obtain your home school/college’s approval before enrolling. If you take courses at a two-year college

- before junior standing (54 credits), you may take approved coursework during a summer session or while on leave of absence.
- after attaining junior standing, the only courses that will be approved will be those that fulfill lower-division requirements or free electives.
- a maximum of 66 credits from a combination of credit from a two-year college and any other credit (e.g., AP exams, experiential learning) will be accepted.

### School/College Rules

	Any transfer credit to be applied to a Syracuse University major or minor must be formally accepted via written petition by the major or minor department. Students are not given transfer credit until their cumulative average is 2.0 or higher. In addition, the following restrictions apply:
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Arts and Sciences	<p>-- Basic or college algebra is not accepted.</p> <p>-- Remedial or developmental coursework is not accepted.</p> <p>-- Transfer credit for foreign language courses must be evaluated by the Department of Languages, Literatures, and Linguistics at Syracuse University to determine the appropriate course equivalent. [Note: Foreign language courses taken at schools or programs that are not accredited will not be reviewed or approved.]</p> <p>-- Pass (P) or Satisfactory (S) grades are never accepted toward the fulfillment of requirements for your major/minor or the A&amp;S Liberal Arts Core. If courses in which you earned a P or S are accepted as transfer credit, they will be awarded as elective credit only</p>
Management	A minimum of 27 credit hours of required Management courses must be taken at SU.
Public Communications	No more than 12 hours of communications course credits earned in another college or university may be accepted toward meeting the requirements of a major program of study in the School of Public Communications.
University College	No more than 12 credit hours earned in another college or university may be accepted toward meeting the program of study requirements in the bachelor of professional studies degree. No more than nine credit hours earned in another college or university may be accepted to the LGL credit certificate program requirements. No more than three credit hours earned in another college or university may be accepted to the organizational leadership credit certificate program requirements.

#### How Transfer Credit Applies Toward Your Degree

All SU transfer credit is measured in semester hours. If your prior institution used a different credit hour system, credits accepted for transfer are converted to semester hours, e.g., credit from institutions on the quarter-hour system is converted to semester hours using the formula of one quarter-hour equals 2/3 semester hour. Grades don't transfer and do not affect your SU cumulative GPA. If you subsequently take a course at SU for which you had previously received transfer credit, the transfer credit will be removed.

#### Additional transfer credit rules

- Grades of C- or below will not be accepted.
- "Pass" grades must be certified to be at a C level or higher. Pass grades will normally be accepted only as elective credit.
- Second undergraduate degrees carry additional restrictions; contact your school/college for details.
- Arts and Sciences students are not given transfer credit until their cumulative average is 2.0 or higher.
- For students on academic probation in Public Communications and Visual and Performing Arts, transfer credit will not be given until the cumulative GPA is 2.0 or higher.
- If you were previously matriculated at SUNY ESF, then subsequently matriculated at SU, coursework taken while an ESF student, including SU courses, is treated and evaluated as transfer credit from ESF. Such SU courses do not appear or calculate on the Syracuse University transcript, except as they are included in a block of transfer credits, i.e., total credit hours accepted from SUNY ESF.

#### Credit For Extra-Institutional And Experiential Learning, And External Examination Programs

Following University rules and program requirements, SU schools/colleges and graduate departments may award credit for various external examinations and other types of extra-institutional and experiential learning. Such credit is evaluated only for the degree or certificate program to which you are admitted, and may change if you move into a different SU program. Credit is evaluated using the guidelines of the American Council on Education and the Council for Advancement of Experiential Learning, as well as our own institutional assessment. See TABLES B, C, and D below for a listing of undergraduate-level exams that may qualify. For examinations or subject areas not covered in the listing below, contact your school/college or appropriate department to determine whether credit may be considered or if you are a candidate for an Advanced Credit Examination. Also contact your school/college to discuss other types of non-institutional experience, such as the military, business, or government, which may qualify for credit.

Undergraduate credit may also be awarded for some matriculation examinations and post-secondary educational experiences offered in other countries. Decisions about awarding such credit are made by the student's school/college during the admissions process.

#### Portfolio Review

Credit may be granted for studio work applicable toward professional degrees in the College of Visual and Performing Arts and the School of Architecture upon departmental evaluation of the portfolio.

#### Undergraduate Students

- A maximum of 30 credits from any combination of extra-institutional and experiential learning, external examinations, and SU Advanced Credit exams may be accepted.
- A maximum of 66 credits from a combination of credit from a two-year college and any other credit (e.g., AP exams, experiential learning) will be accepted.
- If you subsequently take a course at SU for which credit was awarded for extra-institutional, experiential learning, or external examination programs, that credit will be removed.

#### External Examinations

## Undergraduate Students

## College Board Advanced Placement (AP) and College Level Examination Program (CLEP)

Your home school/college uses the rules in effect at the time you matriculate at SU in order to evaluate and accept degree-program credit for AP and CLEP exams. The academic unit with principal responsibility for the examination subject recommends the minimum score for credit and SU course equivalency; however, your home school/college may have higher score requirements and/or different qualifications, both for awarding credit and meeting degree requirements.

TABLE B College Board Advanced Placement Examinations

Exam Subject/Title	Minimum Score	Awardable Credit	Equivalent SU Course	Recommending School/College	Additional School/College Requirements or Qualifications
Art/2-D Design	5	3	Studio Elective	Visual and Performing Arts	Visual and Performing Arts Does not count toward Art and Design Freshman Foundation studio courses
Art/Drawing	5	3	Studio Elective	Visual and Performing Arts	Visual and Performing Arts Does not count toward Art and Design Freshman Foundation studio courses.
Art History	3	6	HOA 105,106	Arts and Sciences	
Biology	4	8	BIO 121, 123, 124	Arts and Sciences	
Chemistry	3 or 4 5	3 8	CHE 103 CHE 106/107 and CHE 116/117	Arts and Sciences	Arts and Sciences Only a score of 5 counts as a sequence in natural sciences and mathematics. Pre-medical students should consult with health professions advising before accepting AP chemistry credit.
Chinese	3 4	4 4	CHI 102 CHI 201	Arts and Sciences	Public Communications Must also place out of CHI 102 (with a score of 3) or CHI 201 (with a score of 4 or 5) on the placement exam.
Comparative Government and Politics	3*	3	PSC 123	Arts and Sciences	
Computer Science A or Computer Science AB	3	3	CPS 196	Engineering and Computer Science	Engineering and Computer Science Students will receive this credit only upon approval of their department chair.
English Language and Composition	3**	6	WRT 105-205	Arts and Sciences	
English Literature and Composition	4	6	ETS 151 (or 117 or 118 or 152 or 153) and WRT 105	Arts and Sciences	Arts and Sciences Students scoring 4 or better will receive 3 credits for ETS 151. Such students who subsequently elect to take ETS 151 may transfer the credit to one of the following: ETS 117, 118, 152, or 153. Three additional credits are awarded for WRT 105.
Environmental Science	3	3	EAR 200	Arts and Sciences	
European History	4	6	HST 111,112	Arts and Sciences	
French Language and Culture	3	4	FRE 102	Arts and Sciences	Public Communications Must also place out of FRE 102 on the placement examination.
German Language and Culture	3	4	GER 102	Arts and Sciences	Public Communications Must also place out of GER 102 on the placement examination.
Human	4	3	GEO 105 or 171	Arts and Sciences	

Geography					
Italian Language and Culture	3	4	ITA 102	Arts and Sciences	Public Communications Must also place out of ITA 102 (with score of 3).
Japanese Language and Culture	3 4	4 4	JPS 102 JPS 201	Arts and Sciences	Public Communications Must also place out of JPS 102 (with a score of 3) or JPS 201 (with a score of 4 or 5) on the placement examination.
Latin	3 4 5	4 4 7	LAT 102 LAT 201 LAT 201, 320	Arts and Sciences	Public Communications must also place out of LAT 102 on the placement examination.
Macroeconomics	4	3	ECN 102	Arts and Sciences	
Mathematics—Calculus AB	3 4	3 6 or 4	MAT 285 MAT 285 and 286 or MAT 295	Arts and Sciences	Engineering and Computer Science Four credits awarded for MAT 295 only, pending results of the math placement examination.
Mathematics—Calculus BC	4	8	MAT 295,296	Arts and Sciences	Engineering and Computer Science Up to 8 credits awarded for MAT 295 only, pending results of the math placement examination.
Mathematics—Calculus BC-AB subscore	3 4	3 6 or 4	MAT 285 MAT 285 and 286 or MAT 295	Arts and Sciences	Arts and Sciences Exemption from Quantitative Skills and substitute for MAT 285 in natural sciences and mathematics.
Mathematics Level II†	4	4	MAT 194	Arts and Sciences	
Microeconomics	4	3	ECN 101	Arts and Sciences	
Music Theory	3	6***	HOM 125, MTC 126	Arts and Sciences	
Physics B	3	8	PHY 101, 102	Arts and Science	Education (Inclusive) will accept a score of 3 only after a grade of B+ or higher is earned in an SU lab/science course.
Physics C (Electricity and Magnetism)	3	4	PHY 102 or 212, 222	Arts and Sciences	
Physics C (Mechanics)	3	4	PHY 101 or 211, 221	Arts and Sciences	
Psychology	4	3	PSY 205	Arts and Sciences	
Spanish Language	3	4	SPA 102	Arts and Sciences	Public Communications Must also place out of SPA 102 on the placement examination.
Spanish Literature	3 4	4 4	SPA 102 SPA 201	Arts and Sciences	Public Communications Must also place out of SPA 102 (with a score of 3) or SPA 201 (with a score of 4 or 5) on the placement examination.
Statistics	3	3 or 4	MAT 121 or 221 or STT 101	Arts and Sciences	Management Credit accepted as MAS 261.
U.S.Government and Politics	3*	3	PSC 121	Arts and Sciences	
U.S.History	4	6	HST 101, 102	Arts and Sciences	

World History	4	6	HST 121, 122	Arts and Sciences	
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\*Beginning with students admitted in fall 2015, the minimum score required for credit for Comparative Government and Politics and U.S. Government and Politics will change from a score of 3 to a score of 4.

\*\*Beginning with students admitted in fall 2015, the minimum score required for credit for English Language and Composition will change from a score of 3 to a score of 4.

\*\*\*Beginning with students admitted in fall 2015 there will be only 3 credits of MTC/HOM 125 awarded for non-music majors. Music majors please check with your advisors at the Setnor School of Music.

† Exam offered in Puerto Rico only.

TABLE C CLEP Examination Credit

Exam Subject/Title	Minimum Score	Awardable Credit	Equivalent SU Course	Recommending School/College
American Literature	50	3	ETS 118	Arts and Sciences
French Level I	50, plus passing of oral test at SU	4	FRE 101	Arts and Sciences
French Level II	62, plus passing of oral test at SU	4	FRE 102	Arts and Sciences
General Biology	70	8	BIO 121, BIO 123, BIO 124	Arts and Sciences
General Chemistry	50	6	CHE 106, 116	Arts and Sciences
German Level I	50, plus passing of oral test at SU	4	GER 101	Arts and Sciences
German Level II	63, plus passing of oral test at SU	4	GER 102	Arts and Sciences
History of U.S. I, II	50	6	HST 101,102	Arts and Sciences
Political Science	50	3	PSC 121	Arts and Sciences
Spanish Level I	50, plus passing of oral test at SU	4	SPA 101	Arts and Sciences
Spanish Level II	66, plus passing of oral test at SU	4	SPA 102	Arts and Sciences
Western Civilization	50	6	HST 111, 112	Arts and Sciences

International Baccalaureate (IB) Credit for Higher Level IB examinations completed with a grade of 5 or higher will be awarded as indicated in Table D. No credit will be awarded for IB Standard Level exams or additional requirements.

TABLE D International Baccalaureate Credit

IB Higher Level Examination	Minimum Score	Syracuse University Credit
Biology	5	8 credits — BIO 121, 123, 124
Business and Management	5	6 credits lower division; free elective only
Chemistry	5	7 credits — CHE 103 and 113
Economics	5	6 credits — ECN 101 and 102
English	5	6 credits — WRT 105 and by petition either ETS 151 & ETS 153
Foreign Languages	5	No credit awarded. Exemption from basic and continuing skills in foreign languages according to performance on proficiency examination administered by the department.
Geography	5	6 credits — GEO 105 and 273
History	5	6 credits lower division
Mathematics	5	6 credits — Quantitative skills

Philosophy	5	6 credits — PHI 191 and 197
Physics	5	8 credits — PHY 101, 102
Psychology	5	6 credits — PSY 205 and 274
Social and Cultural Anthropology	5	6 credits — ANT 111 and 121

## Degree And Certificate Programs

### Degrees

The types of degrees conferred, the minimum number of credit hours required for each degree, and the list of approved programs of study can be found in the Academic Offerings section of the course catalog.

TABLE E Degree Types

Type	Requirements	Notes
Associate's	A.A.: Three-quarters of the work must be in the liberal arts and sciences.	Only available to part-time University College students. See Residency Requirement.
Bachelor's	B.A.: Three-quarters of the work must be in the liberal arts and sciences. B.S.: One-half of the work must be in the liberal arts and sciences. B. Arch., B.F.A., B.I.D., B. Mus.: One-quarter of the work must be in the liberal arts and sciences. B.P.S. (Bachelor of Professional Studies) one quarter of the work must be in the liberal arts and sciences.	
Master's	At least one of the following: passing a comprehensive test, writing a thesis based on independent research, or completing an appropriate special project.	Master's degree programs normally require a minimum of one academic year of full-time graduate level study, or its equivalent in part-time study, with an accumulation of not less than 30 semester hours. Courses numbered 500-599 may not make up more than one-half of the Syracuse coursework
Master of Philosophy	It may be conferred upon a student who has satisfactorily fulfilled all Ph.D. requirements but the dissertation. The following requirements apply: (1.) The student must be enrolled in the Ph.D. program; (2.) The student must have reached all but dissertation (ABD) status, in accordance with program requirements, and such designation must appear on the student's advising transcript; (3.) The student must complete a diploma request to receive an M.Phil. degree; and (4.) The M.Phil. must be registered with NYSED.	An intermediate degree between the master's and the doctor of philosophy, awarded by the Graduate School upon the recommendation of the academic unit. Note that not all departments have registered this degree with NY State. Courses numbered 500-599 may not make up more than one-half of the Syracuse coursework.
Doctoral	Doctoral studies shall include the production of a substantial report on research, or the independent investigation of a topic of significance to the field of study, or the production of an appropriate	A doctoral degree represents completion of three academic years of graduate-level study or an equivalent that can be shown to accomplish the

	creative work, or the development of advanced professional skills.	same goals. Courses numbered 500-599 may not make up more than one-third of the Syracuse coursework for a doctoral program.
Computer Engineer	The programs consist of coursework, examinations, and an independent study project. The minimum program consists of 60 credits of work beyond the bachelor's degree, of which 6-18 credits are independent study. Each student will be examined in three topics in computer engineering.	The degree of computer engineer is offered for qualified students seeking advanced technical education beyond the M.S. degree. The program is designed to provide mastery of a field of knowledge and familiarity with related fields, as well as to develop a capacity for independent study.
Electrical Engineer	The program consists of coursework, examinations, and an independent study project. The minimum program consists of 60 credits of work beyond the bachelor's degree, of which 6-18 credits are independent study. Each student will be examined in four topics: engineering mathematics and three fields of electrical engineering.	The degree of electrical engineer is offered for qualified students seeking advanced technical education beyond the M.S. degree. The program is designed to provide mastery of a field of knowledge and familiarity with related fields, as well as to develop a capacity for independent study. Candidates, with the approval of the faculty, may work toward the Ph.D. after completing the electrical engineering degree.

## Graduate Degree And Certificate Programs

### Graduate Degree Programs

#### Master's Degrees

##### Program of Study

A matriculated student who is studying for the master's degree must satisfactorily complete a program of study of not less than 30 credits that is approved by the academic unit and filed with the Graduate Degree Certification Office.

##### Time to Degree

You must meet all requirements for the master's degree within seven years from the time you register for the first course to be used in your master's degree program. If you do not meet this requirement, you may petition your school/college for reinstatement of credits that were completed outside the seven-year timeframe.

##### Comprehensive Examinations

Your school/college will determine the nature of any comprehensive examination or examinations that apply toward your master's degree. Such exams may or may not be directly related to the content of particular courses you have taken.

##### Oral Examination

An oral examination committee consists of four voting members that include a chairperson, thesis or area of study advisor, and other specialists in your subject area. The school/college will conduct the examination in the manner it considers most effective; contact your department and school/college for specific procedures and guidelines. The committee chair will preside over the exam and ensure that department/school/college and Graduate School/Graduate Degree Certification Office regulations and declared policies are followed.

Your oral examination committee will prepare a report that reflects one of the following statuses: pass; pass with minor revisions (generally editorial); pass with major revisions (substantive); not pass. You are entitled to an explanation from the committee concerning the results of the examination.

#### Doctoral Degrees

Requirements for the doctoral degree emphasize mastery of a field of knowledge, familiarity with allied areas, facility in the use of research techniques, and responsibility for the advancement of knowledge. The degree is given in recognition of high attainments in your chosen field, as shown by the completion of specified courses and by the production of a dissertation demonstrating the ability to carry out independent investigation that advances knowledge in the field.

##### Program of Study

Each academic unit determines, consistent with its approved and registered curriculum, the number of coursework credits and the number of dissertation credits that will constitute your program of study, including that portion of the work for the master's that will form an integral part of the doctoral program. Minor courses included in the program of study should support the total program, rather than be restricted to academic unit boundaries.

##### Qualifying Examinations

You must pass a qualifying examination no later than the end of the term prior to the term in which you expect to complete doctoral degree requirements. The qualifying exam will be set by your academic unit, and may be in oral or written form, or both. You must demonstrate acceptable competence in any required languages or research tools as designated by your program before being admitted to the qualifying exam. If the results of this examination are unsatisfactory, you may be granted a second exam after completing a semester of additional study.

#### Advancement to Candidacy/Time to degree

You will be admitted to candidacy when you have completed all requirements for the degree except for the dissertation and the final oral exam. The maximum time allowed to reach candidacy status is seven years from the term you matriculated into the doctoral program. Your academic unit must notify the Graduate Degree Certification Office when you have reached this status before the end of the term in which the status is effective. The maximum time for completion of a doctoral degree is five years from the end of the semester in which you are admitted to candidacy.

#### Exceeding Time to Degree Requirements

If you have exceeded the seven-year limit for achieving ABD status, you must register for GRD 991, which requires a minimum of one credit hour per semester, each fall and spring semester until you achieve ABD status. If you fail to register for GRD 991, for a given term, you will be withdrawn from your program.

If you have exceeded the degree completion limit of five years after achieving ABD status, you must register for GRD 991, which requires a minimum of one credit hour per semester, each fall and spring semester until the completion of your doctoral degree. If you fail to register for GRD 991, for a given term, you will be withdrawn from your program.

#### Dissertation advisor

A faculty member from your department or program will be identified as your dissertation advisor. The dissertation advisor should be an SU tenured or tenure-track faculty member in the program of study of your dissertation. In exceptional cases, where faculty emeriti or others with outstanding qualifications in your area of research will direct the dissertation, a member of the SU faculty from your academic unit must jointly oversee the preparation of your dissertation.

#### Oral Examination

The oral examination committee:

The academic unit appoints a six-member oral examination committee, including a chair, at the recommendation of your dissertation advisor, and with the concurrence of the Graduate School.

The committee chair:

- should have an affinity for the field in which the dissertation was written;
- represents the Dean of the Graduate School;
- typically will be an SU tenured or tenure-track faculty member from outside the department or program in which the dissertation was written; and
- alternatively, may be either a faculty emeritus or College of Law faculty member.

Your dissertation advisor will be a committee member. Other committee members should be tenured or tenure-track SU faculty members. One external member can be included, based on subject-matter expertise; however, this committee member can't be a personal acquaintance. You must petition to include more than one external committee member.

The oral examination:

Prior to the exam, the Graduate Degree Certification Office must verify that you've been admitted to candidacy, and that all supporting documentation has been filed. Your dissertation advisor and academic unit will determine the scheduling of the exam with the approval of the Graduate Degree Certification Office. Each school/college is free to conduct oral exams in the manner considered to be most effective.

The chair of the oral examination committee has several responsibilities:

- Represent the Dean of the Graduate School.
- Preside over the exam and ensure that academic unit and Graduate School policies and regulations are followed.
- Advise the committee as to general exam and questioning procedures.
- Participate in the questioning of the candidate.
- Vote on the outcome, and secure the committee's vote.
- Submit a written report to the Dean of the Graduate School that includes:
  - the result of the vote, with signatures of approval and appropriate comments;
  - comments on the quality of the examination; and
  - recommendations for any procedural improvements.

Further oral exam considerations:

- Exam time and place are publicly announced; graduate students and faculty are encouraged to attend and participate, but will not be allowed to vote.
- If a committee member must be absent from the oral defense:
  - that committee member must submit questions and/or comments in writing to the chair in advance; and
  - the Graduate School must approve any committee substitutions after the exam has been scheduled, or if more than one committee member will be absent.

Voting and results:

- Voting will be held in executive session of the committee.
- All committee members, including the chair, vote equally.
- In order to pass the exam, a majority of the committee must vote favorably; members may make their approval conditional on changes to the dissertation.
- The committee’s report will recommend one of the following outcomes:
  - pass
  - pass with minor revisions (generally editorial)
  - pass with major revisions (substantive)
  - not pass

You are entitled to an explanation from the committee concerning the outcome of the defense.

### Graduate Certificate Programs

Certificates of Advanced Study (C.A.S.) (excluding programs registered as preparing individuals for a teaching certificate, educational leadership certificate, or a professional license issue by the State Education Department): A matriculated student who is studying for a C.A.S. must satisfactorily complete a program of study of not less than 12 credits that is approved by the academic unit and filed with the Graduate Degree Certification Office. C.A.S. programs may be part of an existing degree program or a stand-alone program of study.

Eligibility requirement To be awarded a C.A.S., a student must be matriculated in the certificate program for at least one semester. Matriculation may not be backdated.

### Undergraduate Degree And Certificate Programs

#### Undergraduate Degree Programs

Within the bachelor's degree there are four types of degree programs available to undergraduate students at SU: single degree programs, single degree programs with double majors, single degree programs with dual majors, and combined degree programs. Generally, students must complete a prescribed course of study and minimum number of credit hours to complete a degree program.

TABLE F Undergraduate Degree Programs

Type	Requirements	Notes	School/College Information
<b>Single Degree Program</b>			
A single degree program consists of one major in one school/college.	A single degree program requires the completion of all degree requirements within one school/college, including the requirements of one major program of study in that school/college.	One degree is conferred and one diploma awarded.	Students are enrolled in one school/college.
<b>Single Degree Program with Double Major</b>			
A single degree program with double major consists of two major programs of study simultaneously pursued (a) in the same school/college or (b) in two separate schools/colleges of the University.	A single degree program with double major requires completion of all degree requirements within one school/college and the requirements for each major.	One degree, certified by the home school/college, is conferred. One diploma, signed by the dean of the home school/college, is awarded.	Students are enrolled in one school/college. In some schools/colleges, completion of double majors, especially when the second major is outside the school/college, may require more than the minimum credits required for graduation. Double majors are available only in some schools/colleges.
<b>Single Degree Program with Dual Majors</b>			
A single degree program with dual majors consists of two major programs of study simultaneously pursued in two separate schools/colleges of the University.	A single degree program with dual majors requires completion of all degree requirements in both schools/colleges, as well as requirements for a major in each school/college or one dually approved major.	Upon certification by both schools/colleges, one degree, the degree associated with the home school/college major, is conferred. One diploma is awarded, signed by the dean of each school/college. Students who wish to pursue other dual programs that have not been formally established must obtain the prior written permission of both deans. In cases where the academic rules of two schools/colleges conflict, the policies of the home school/college take precedence.	Students are enrolled in two schools/colleges, with one designated as the home school/college. Schools/Colleges that have approved single-degree programs with dual majors are listed in Table G.  Architecture Single degree programs with dual majors are not available  Arts and Sciences Students enrolled in a single degree programs with a dual major

		Completion of some dual programs, particularly those with more than two majors, may require additional credit hours.	<p>must earn a minimum of 90 credits in Arts and Sciences. In most cases this will mean that students enrolled in any Arts and Sciences dual program may count only credit earned in Arts and Sciences and the other school/college of enrollment toward the total credit hours required for the degree. Coursework taken in any other school/college that does not count toward the 90 Arts and Sciences credit-hour requirement may be considered excess credit and will appear on the transcript and will contribute to the cumulative GPA, but it will not count toward the credit hours required for the degree.</p> <p>Engineering and Computer Science Completion of a second major within Engineering and Computer Science requires completion of all requirements for each major in addition to the requirements of the dual school/college.</p>
<b>Combined Undergraduate Degree Program</b>			
<p>A combined degree program consists of two degree programs with distinct degree titles that recognize competencies in two essentially different areas pursued simultaneously in the same school/college or two different schools/colleges.</p>	<p>Concurrent admission to a second undergraduate degree program is constrained by NYSED's restrictions regarding second undergraduate degrees and review by the University registrar.</p> <p>Students must meet admissions requirements of both degree programs.</p> <p>For programs involving two schools/colleges, students must fulfill degree requirements in both schools/colleges.</p> <p>Students in combined programs must complete 25 percent additional work beyond the normal requirements for one of the degrees (this may be either the degree with the higher or lower credit-hour requirements, based on the school's/college's determination), e.g., 30 more credit hours for a 120-credit hour degree.</p> <p>The additional credits must be SU credit as defined under the Residency Requirement. Transfer and other credit may be accepted only if the second degree requires more than 25 percent additional credits, and such credit is applied in excess of the 25 percent additional credits.</p>	<p>Two degrees and two diplomas are conferred. The combined programs may be two undergraduate degree programs or an undergraduate and a graduate degree program. See Table H for a list of combined undergraduate-graduate degree programs.</p> <p>Students pursuing a B.A. degree will not be admitted to a second B.A. degree program in the same school/college. Approval for admission to a second B.S. degree program requires a significant difference in overall degree requirements between the two programs.</p> <p>The awarding of the second degree may be either concurrent with, or subsequent to, the awarding of the first.</p>	<p>Programs available as a single degree with dual majors (see Table G) are not available as combined degree programs.</p> <p>There is one formally established undergraduate combined program:</p> <p>Arts and Sciences and Engineering and Computer Science B.A. (or B.S., by petition) in Arts and Sciences and B.S. in Engineering and Computer Science.</p> <p>Students who wish to pursue other combinations of undergraduate degree programs must obtain the prior written permission of both deans.</p>

TABLE G Single Degree Programs with Dual Majors

Home School/College	Dual School/College	Type of Degree
Arts and Sciences	Education	B.A. or B.S.*

Arts and Sciences	Public Communications	B.A. or B.S.*
Education	Sport and Human Dynamics	B.S.
Engineering and Computer Science	Information Studies	B.S.
Information Studies	Management	B.S.
Management	Public Communication	B.S.
Public Communications	Information Studies	B.S.
Visual and Performing Arts	Education	B.F.A. or B.Mus.

\* Students pursuing a B.S. degree in Arts and Sciences must petition the department offering the major to be formally accepted as candidates.

### Second Undergraduate Degrees

If you previously earned a bachelor's degree at SU or another institution, you may or may not be admissible to a second undergraduate degree program, depending on the disciplinary and professional "proximity" of the completed and proposed programs. NYSED has ruled that "the conferral of two bachelor's or associate degrees should be reserved as a means of recognizing that a candidate has competencies in two essentially different areas: when a second degree, as opposed to one degree with a double major, is academically justifiable and when the second degree requires one-fourth additional work (i.e., 30 credit hours for a 120-credit hour degree)."

The University registrar, in consultation with the associate provost for academic programs and appropriate academic advisors, will decide whether admission to a second undergraduate degree program is in accord with NYSED's criteria. If you earned a B.A. degree you will not be admitted to a second B.A. degree program that falls within the same SU school/college (or comparable school/college, if the first degree was earned elsewhere), due to the significant overlap of degree requirements. Approval for admission to a second B.S. degree program requires a significant difference in overall degree requirements between the two degree programs. Students who meet these criteria must also meet all admissions requirements of the program to which they apply. Students whose first degree was earned at Syracuse University must file an Application for Readmission, available from the admitting school/college office. Students with first degrees from other institutions follow the normal admission application procedure.

A minimum of 30 credits for a second undergraduate degree must be Syracuse University credit, as defined under the Residency Requirement. Transfer and other credit may be accepted only if the second degree requires more than 25 percent additional credits, and such credit is applied in excess of the 25 percent additional credits.

At the time of matriculation in the second undergraduate degree, any courses previously taken as a non-matriculated student at SU will be entered on the undergraduate record, if they do not already appear there. This coursework will calculate toward credit hour and grade point totals on the undergraduate record.

The official Syracuse University transcript record for students with a prior SU undergraduate degree is cumulative, i.e., courses and grades for all undergraduate work, regardless of the degree program to which they apply, appear on one transcript with cumulative totals. The home school/college for the second undergraduate degree manually maintains and monitors the record of work related to the second degree. Calculations for satisfactory academic performance, honors, etc., are derived from the school/college or departmental records and may not be reflected on the official transcript.

TABLE H Combined Undergraduate/Graduate Degree Programs

Requirements	Notes	School/College Information
<b>Undergraduate/Graduate Teacher Preparation Degree Programs</b>		
Students must fully meet the combined requirements for both degrees.	Undergraduate students are accepted in the combined program through a two-step process: an initial declaration, then an application prior to their first graduate semester. Graduate status is required in the 5th year of study, for the two final semesters. Both degrees are awarded concurrently.  Graduate courses taken in the first four years that count toward fulfillment of graduate requirements are removed from calculation on the undergraduate record and transferred as a block of credits to the graduate record, where the credits apply but grades do not calculate toward the GPA. However, these grades will be used in manually calculating the GPA for all graduate credits toward the Master's degree, to assure that the minimum 3.0 requirement has been met.	Arts and Sciences/Education B.A./M.S. 5-year Teacher Preparation programs
<b>Undergraduate and Other Non-Law Graduate Degree Program</b>		

<p>Students must fully meet the requirements for both degrees.</p>	<p>Students are accepted for graduate study after completion of the third year of study but are not fully matriculated as graduate students until bachelor's degree requirements have been met. The undergraduate degree is awarded before completion of the graduate degree. Graduate courses taken in the fourth year of study count toward fulfillment of both undergraduate and graduate degree requirements. The graduate courses are included in the undergraduate tuition and appear only on the undergraduate record, and grades calculate only toward the undergraduate GPA. A block of transfer credits labeled as "transferred from SU undergraduate record" appears on the graduate record, if needed, and applies credit hours toward the graduate degree.</p>	<p>There are two formally established combined programs: Engineering and Computer Science B.S. and M.S. in Computer Science; B.S. and M.B.A.</p> <p>Students who wish to pursue other combinations of undergraduate and graduate degree programs must obtain the prior written permission of both deans.</p>
<p><b>Undergraduate and Law Graduate Degree Program</b></p>		
<p>Students must fully meet the requirements for both degrees.</p>	<p>In this program, students matriculate in the law program after completion of the third year of undergraduate study. Courses taken in the first year of law study count toward fulfillment of both undergraduate and law degree requirements. They are billed at the College of Law tuition rate and appear only on the law record, and grades calculate only toward the law GPA. A block of transfer credits labeled as "transferred from SU law record" appears on the undergraduate record and applies credit hours toward the undergraduate degree. The undergraduate degree is awarded before completion of the graduate degree.</p>	
<p><b>Other Simultaneous Pursuit of Undergraduate and Graduate Degrees</b></p>		
	<p>In exceptional circumstances requiring approval of the academic department and the Graduate School, undergraduate students may be formally accepted into a graduate degree program prior to completion of undergraduate degree requirements. The status of the student, i.e., whether she/he is considered an undergraduate- or graduate-level student, will be determined upon acceptance to the graduate program. For students who are considered to be undergraduates until completion of undergraduate requirements, courses which apply to the graduate degree will be flagged on the undergraduate record to remove them from calculation there and transferred as a block of credit to the graduate record. For students who are considered to be graduate students, courses taken to fulfill undergraduate degree requirements will be flagged on the graduate record to remove them from calculation there and transferred as a block of credit to the undergraduate record. In both cases, only the credit (i.e., not grades) for the flagged courses will be calculated on the record.</p>	

### Undergraduate Certificate Programs

A matriculated student who is studying for a certificate must satisfactorily complete a program of study of not less than 12 credits that is approved by the academic unit and by NYSED.

### Degree Certification

School/college officials certify to the Registrar's Office that degree and certificate requirements have been completed. This process generally takes four to six weeks after degree requirements have been completed. Degrees are awarded for the official date following the completion of degree requirements; the degree award dates fall in May, June or July, August, and December. Only courses that are an integral part of your degree program will be credited toward

graduation requirements, in compliance with NYSED requirements.

The University Senate recommends to the SU Board of Trustees the listing of candidates who will meet all requirements for degrees and certificates of advance study by the appropriate commencement date each year

Note: Participating in convocation and commencement ceremonies doesn't imply that degree requirements have been completed.

You must file a diploma request through MySlice (myslice.syr.edu) no later than the beginning of your last semester of study.

## Diplomas And Certificates

Diplomas are ordered after program completion has been certified by schools/colleges and posted by the Registrar's Office. You will receive your diploma/certificate four to six weeks after the certification/posting process has been completed. SU reserves the right to withhold diplomas/certificates from students who are financially delinquent, or at the request of the Office of Student Rights and Responsibilities.

Undergraduate diplomas:

- display the degree title;
- display University honors and "Renée Crown University Honors," when awarded;
- do not list major or minor; and
- are signed by the chancellor and the dean(s) of the student's school(s)/college(s).

Graduate diplomas:

- display the degree title;
- list major, except when already included in the degree title, e.g., Master of Social Work; and
- are signed by the chancellor, the dean of the Graduate School, and the dean(s) of the student's school(s)/college(s).

Certificates of Advanced Study:

- display the certificate title (i.e., Certificate of Advanced Study);
- list the area of study; and
- are signed by the chancellor, the dean of the Graduate School, and the dean(s) of the school(s)/college(s) that award the C.A.S.

## Grades

### Grading System

TABLE I Letter Grades

Grades	Grade Points per Credit
A	4.000
A-	3.667
B+	3.333
B	3.000
B-	2.667
C+	2.333
C	2.000
C-	1.667
D <sup>1</sup>	1.000
D- <sup>1,2</sup>	.667
F	0

<sup>1</sup>Grades of D and D- may not be assigned to graduate students.

<sup>2</sup> Available only for Law students in LAW courses.

TABLE J Grading Symbols

GRADING SYMBOLS	Meaning	Grade Points per Credit	Explanation
I	Incomplete	0	Indicates that, due to exceptional circumstances, a student has made a formal arrangement with the instructor to complete remaining work/assignments after the course ends.
AU	Audit	Not counted	Indicates that a student elected to take the course for no (zero) credit.
NA	Did not attend and did not withdraw	Not counted	Indicates that a student never attended the course, or that participation ended so early in the term that there was no basis for evaluation.
NR	Not Required	Not counted	Used for courses or components of courses that do not require a grade.
P	Pass	Not counted	Indicates satisfactory completion of a Pass/Fail-graded course or one for which a student elected the Pass/Fail option.
RM	Remedial	Not counted	Used for college-level remedial and developmental courses.
V	Variable length course—grade not yet due	Not counted	Used for courses that do not follow the normal semester timeline. V indicates that normal progress is being made at the end-of-semester point.
WD	Withdrew	Not counted	Indicates that a student withdrew from the course, after the academic drop deadline.

## Grades And Grading Symbols - Additional Information

### Letter Grades

#### Undergraduate Students

You may have the option to elect a letter grade in a pass/fail-graded course. When permissible, you must select that option by the grading option deadline, and you may not rescind the selection after the deadline.

#### I (Incomplete)

You may request an Incomplete if you have exceptional circumstances that prevent you from fulfilling all course requirements on time. You will need your instructor's approval, and will need to have completed enough course content to have a grade assigned based on your work to date. An Incomplete is not available if you have not completed enough work on which to base a grade. Check with the appropriate instructor about deferred exams and any other requirements. If you take a leave of absence or are withdrawn from the University, you can't receive Incompletes for courses in which you were registered.

Complete a "Request for Incomplete Grade" form, which is an agreement between you and your instructor that specifies the reasons, conditions, and time limit for removing the Incomplete from your record. An Incomplete will calculate as an F in your GPA. As a function of the agreement, your instructor will calculate a grade for you based on work completed to date, counting unsubmitted work as zero. This is the grade you will receive if a "Removal of Incomplete Grade" form is not submitted to the Registrar's Office by the appropriate deadline.

#### AU (Audit)

You may audit courses with instructor approval. You must select the audit option by the grading option deadline, and cannot rescind the selection after the deadline. Audited courses are non-credit, do not meet any degree requirements, and aren't counted toward enrollment status. Instructors may record a grading symbol of NA instead of AU if you don't meet stated academic or attendance requirements. You will have limited access to SU library resources if you are auditing a class and are not registered for any credit classes for the term. Courses that require a Proposal for Independent Study, studio art or applied music courses offered by the College of Visual and Performing Arts, and University College BPS and LGL courses can't be audited.

#### NA (Did Not Attend And Did Not Withdraw)

An NA is applied when a student either never attends the course, or when participation ended so early in the term that there is no basis for evaluation and the student fails to drop or withdraw. If enough work is completed to establish an evaluation, a course grade will be calculated on the basis of work submitted. Unsubmitted work will be counted as zero. If you receive an NA for a course, you will no longer have the option of petitioning for an Incomplete or a letter grade.

#### P/F (Pass/Fail)

Credit is earned for courses with a P, but not with an F.

Note: Graduate students may only receive pass/fail grades for courses designated as pass/fail.

#### Undergraduate Students

You may have the option to elect a pass/fail grade for some courses. You must select this option by the grading option deadline, and you may not rescind the selection after the deadline.

School/college-specific pass/fail rules are listed in the table below. Some additional points:

- If you select a pass/fail option, grades of A, A-, B+, B, B-, C+, C, C-, and D are converted to P. No grade other than P or F will be reported by the Registrar's Office.
- If you choose to major in a field in which you previously took a course as pass/fail, your home school/college and the chair of the department in which you took the course will determine whether and upon what terms the course can be used to satisfy departmental requirements.
- SU Abroad students are limited to one pass/fail course each semester.
- No more than 24 credit hours of courses taken pass/fail may be applied toward an undergraduate degree.

#### Undergraduate Students

#### School/College Rules

Architecture	All courses taken to fulfill the architectural professional program requirements must receive a letter grade. Only open electives may be taken pass/fail.
Arts and Sciences	Liberal Arts Core, major and minor classes cannot be taken pass/fail.
Education	Some courses must be taken pass/fail (e.g., EDU 508). These courses are not included in the 24-credit maximum applicable to an undergraduate degree.
Engineering and Computer Science	Only free-elective courses at the 300-level and above or physical education courses may be taken pass/fail. Students are not permitted to have more than 18 credit hours of pass/fail electives in their complete program.
Management	Sophomores, juniors, and seniors may use the pass/fail option for one class per semester. The course must be 300-level or higher and must be a free elective or a course from groups I, III, IV, or V on the degree check sheet.
Public Communications	A pass/fail course may not be used to satisfy any requirement. Pass/fail courses can be used only as free electives.
Sport and Human Dynamics	A maximum of 6 general elective credits may be taken pass/fail toward a degree. SWK 435 and 445 (Field Practicum I and II) are graded pass/fail by school policy.
University College	Bachelor of Professional Studies students. A pass/fail course may not be used to satisfy any requirements. Pass/fail courses can be used only as electives. A maximum of 12 credit hours of pass/fail courses may be used toward the degree program.
Visual and Performing Arts	Only elective courses may be taken pass/fail. No studio courses may be taken pass/fail.

#### RM (Remedial)

RM courses count toward credit hours carried in a particular semester, but not toward credit hours earned for the degree.

#### WD (Withdrawn)

After the academic drop deadline, and until the withdrawal deadline for the term, you may withdraw from a course and have a grading symbol of WD recorded on your transcript.

#### Reporting Grades/Grading Symbols

Instructors are required to submit grades or appropriate grading symbols for all students in their courses. If a student has not completed all course requirements by the time the instructor must report final grades, then the grade is determined based on work completed to date, counting unsubmitted work as zero, unless the student has made prior arrangements to receive an Incomplete.

#### Missing Grades

Missing grades do not calculate toward the GPA. You may graduate with missing grades. After a degree has been certified, a missing grade may be recorded only if your home school/college determines that you completed all coursework before the degree award date, and only the evaluation and grade submission occurred after that date. Recording of a missing grade after a degree has been certified is subject to the approval of the University Registrar.

## Changing Grades

An instructor may elect to submit a grade change after the grade has already been reported. Grade changes must be reported to the department chair, the dean of the student's home school/college, and the Registrar's Office. Any or all of those offices may require an explanation of the change, and may require that additional information or forms be provided. All changes involving grading symbols must adhere to University policies and procedures. The Registrar's Office has final authority to approve changes that involve grading symbols. After a degree has been certified, a grade change may be recorded only if your home school/college determines that you completed all coursework before the degree award date, and only the evaluation and grade change submission occurred after that date. Recording of a grade change after a degree has been certified is subject to the approval of the University Registrar.

Grades may also be changed in the following circumstances:

- HEOP or SSSP students who receive grades of D or F during the Summer Start program will have these grades recorded as WD on the transcript; by petition a grade of C- may be changed to a WD.
- Engineering and Computer Science students in the Summer Start program may petition to have grades of C- or lower changed to WD.

## Removal Of Incomplete

Incomplete (I) grades may be removed prior to graduation in one of two ways:

- complete the outstanding work specified on the Request for Incomplete Grade form by the agreed-upon date; or
- if you fail to complete the work specified in the Request for Incomplete Grade form, the Registrar's Office will post the letter grade indicated by the "If not completed ..." statement, subject to any previous grading option that had been selected

Although you may not register for a course a second time for the purpose of removing an Incomplete grade, an instructor may require you to repeat certain elements of a course in order to remove the Incomplete.

## Incompletes and Graduation

You may graduate with outstanding Incompletes, if you've earned the required number of credits and met all degree requirements, and if your cumulative average equals or exceeds the minimum requirements for your school/college, with the Incompletes calculated as Fs.

After your degree has been certified, a grade may replace an Incomplete only when your home school/college determines that you completed all coursework before the degree award date, with only the evaluation and grade submission occurring after that date. Recording of the grade change from I to earned grade after a degree has been certified is subject to the approval of the University Registrar.

## Grade Appeals

**Normal Practice for Course Grade Appeals** The following set of general statements represents normal practice at SU\* for a student seeking resolution to a grievance of a course grade.

1. The assignment of grades at SU is the responsibility of the faculty; once assigned by a member of the faculty, a grade cannot be changed without his or her consent, except by due process as detailed below. In cases where the instructor of record is not a member of the faculty, the faculty member charged with oversight of that instructor is ultimately responsible for the assignment of grades.
2. A course grade is based upon the instructor's professional assessment of the academic quality of the student's performance on a body of work. Such assessments are non-negotiable, and disputes about them do not constitute valid grounds for an appeal. Valid grounds can arise, e.g., when an instructor fails to provide or implement uniform and consistent standards, or bases an assessment on criteria other than academic performance.\*
3. Unless there are issues of a personal nature, the appeal process for a grade dispute begins with the instructor of record. Failure to comply with this may be grounds for denial of subsequent appeals. Any appeal beyond the instructor of record must be initiated in writing to the department chair before the last day of classes of the academic year semester immediately following the one in which the aggrieved grade was received by the Registrar. This written appeal should describe the basis for the grievance, the informal steps taken to resolve the dispute, and the remedies sought.
4. If satisfaction is not obtained at this or any subsequent level, the appeal always moves to the next level of authority. The levels in succession are: the instructor of record, faculty member in charge of the course, the department chair of the faculty member, the dean of the department chair.
5. At each level of appeal, a fair and thorough hearing of all views is sought before a decision is made. This may, but need not, require a face-to-face meeting of the parties directly involved in the dispute. A decision may be reached if both student and instructor agree. If such a decision cannot be reached, a panel designed by the college for this purpose shall hear the case. Details of the operation and manner of selection of this panel may vary by school or college\*\*, but shall conform to the following guidelines:
  - a. The panel shall have a quorum of at least three.
  - b. All voting members of the panel shall be tenured faculty.
  - c. No member of the panel shall hear a case who has been involved in a previous stage of the appeal.
  - d. Membership of the panel shall be fixed and made public in a given academic year, though replacements may be made in the event of resignations.
  - e. Membership of the panel shall be approved by the faculty of the school or college, or by a representative group of the faculty, in each academic year.
  - f. The Senate Committee on Instruction shall approve the manner of selection and charge of a school or college's panel before its first case. The committee shall also approve any subsequent changes in the manner of selection or charge of each college or school's panel. The panel may, at its discretion, meet with the aggrieved parties either separately or together. The decision of this panel, either to deny the student's original appeal or to authorize the Registrar to change the grade, shall be final. The panel shall inform both the student and the instructor of its decision in writing. The panel shall also summarize the case and its outcome in a written report to the Senate Committee on Instruction. Said committee may include summary statistics on grade disputes in its final report to the Senate.
6. The only grounds for any further appeal shall be irregularities in the above procedures.

7. In such cases, either party may appeal the final decision of the faculty panel to the Senate Committee on Instruction. The Senate Committee on Instruction may either deny the appeal or insist that the procedure begin anew at the point the irregularity occurred.
8. All stages of the appeal process shall be kept confidential to the maximum extent possible, consistent with the Family Educational Rights and Privacy Act.

\* For further guidance, consult the bylaws of the individual school or college.

\*\* These procedures do not apply for students in the College of Law.

## Grade Point Average

SU grade point average (GPA) is calculated by taking the number of grade points earned and dividing by the number of credit hours carried toward the GPA. Various GPAs, e.g. cumulative GPA and semester GPAs are calculated and used for a variety of purposes. Schools/colleges can advise about GPA calculations used to determine satisfactory progress, etc. See TABLES I and J for grade and grade symbol listings and their associated grade point calculations. Missing grades are not counted in GPA calculation. GPA average is calculated to three decimal places. GPA is not rounded.

### Graduation

Undergraduate students must earn a minimum cumulative GPA of 2.0 in order to be awarded an SU degree. Graduate students must earn a minimum average of 3.0 for work comprising the program for the degree or certificate and a minimum cumulative GPA of 2.8.

## Honors

The University recognizes exceptional undergraduate achievement through various honors. Certain honors are imprinted on transcripts and diplomas after degree certification.

### Dean's List

#### Undergraduate Students

Full-time students are eligible for the dean's list of their home school/college at the end of each semester.

School/College	Requirement
Architecture	Minimum GPA of 3.500 for 12-14 letter-graded credit hours taken on campus or a minimum GPA of 3.200 for 15 or more letter-graded credit hours taken on campus.
Arts and Sciences, Education, Engineering and Computer Science, Information Studies, Management, Sport and Human Dynamics, and Visual and Performing Arts	Minimum GPA of 3.400 and a minimum of 12 credit hours of letter grades with no missing or Incomplete grades.
Management	Minimum GPA of 3.600 and a minimum of 12 credit hours of letter grades with no missing or incomplete grades.
Public Communications	Minimum GPA of 3.500 and a minimum of 12 credit hours of letter grades with no missing or Incomplete grades.
University College	UC students are eligible for the dean's list at the end of each semester (excluding summer) if they earn a 3.400 GPA in the last 12 credit hours taken and have been enrolled in consecutive semesters.

### University Scholars

The Syracuse University Scholars Selection Committee selects eight to 12 seniors each year as University Scholars.

### Renee Crown University Honors Program

“Renée Crown University Honors” will be noted on your diploma and transcript if you complete the requirements of the Honors Program.

### University Honors

You will receive your degree with University honors if your cumulative GPA meets the following standard:

#### GPA Requirement

Cum laude	3.200 for Architecture
	3.400 for all other schools/colleges
Magna cum laude	3.500 for Architecture
	3.600 for all other schools/colleges
Summa cum laude	3.800

Cumulative GPA requirements for honors must be equal to or greater than those noted above; no rounding up is permitted. A minimum of 60 credit hours

taken at SU is required for honors. Generally, physical education courses and ROTC credit are not included in calculating honors. Check with your school/college dean's office to determine how your GPA will be determined.

#### School/College Rules

Arts and Sciences, Information Studies, and Management	University honors is based on a minimum of 60 credit hours of letter-graded courses taken at SU.
University College	Associate's degree recipients are not eligible for University honors.

#### Departmental Distinction

Students earn distinction in particular programs of study by meeting the specific criteria for distinction in that major. Departmental or program distinction recognizes exceptional achievement that exceeds normal expectations for graduates within the program. This will be noted on the transcript after the degree has been awarded.

#### Internal Transfer

##### Graduate Students

Graduate students may change their degree program if the transfer is approved by the new program. Graduate students wishing to initiate any kind of change in degree program, whether transferring between programs or undertaking concurrent graduate degree programs, must consult their funding sources as to the effect the proposed change may have on their eligibility for continued funding.

#### Intra-University Transfer

##### Undergraduate Students

Students transferring to other schools/colleges within the University (intra-University transfer) must meet the admission requirements of the new school/college that were in effect at the time of matriculation into the University. Submit internal transfer requests well before the start of the next semester to allow adequate review/processing time. Check with the appropriate school/college undergraduate office, as intra-University transfer deadline dates vary. Until your IUT is approved, you may not be able to register for courses in the new program. See TABLE K for school/college-specific information.

The new school/college of enrollment will re-evaluate all SU, transfer, and other credit you have received. If you were previously matriculated at SUNY ESF and took SU courses during that time, your school/college, at its discretion, may include those SU courses in manual calculations for determination of intra-University transfer eligibility.

Full-time students transferring to University College may register for up to 11 credit hours during the first semester after the transfer. Students registered in a main campus school/college during the spring semester may not transfer to University College for the purpose of summer study.

TABLE K Intra-University Transfer Standards

New School/College	Conditions
Architecture	3.0 GPA. Applicants are expected to complete one of MAT 221, MAT 285, MAT 295 or PHY 101. No midyear transfers. Interview and portfolio review required. Application deadline: Friday preceding spring break.
Arts and Sciences	Students interested in applying for transfer must attend an informational session. These sessions are held throughout the semester. Visit <a href="http://casadvising.syr.edu">http://casadvising.syr.edu</a> for the schedule. For automatic transfer to The College, applicants must be making satisfactory progress and have a current cumulative SU GPA of at least 3.0. The College will consider applications from, but not guarantee admission to, students with a GPA below the 3.0 minimum. Such students must submit a letter with their application that explains their previous academic difficulties, the major they are interested in pursuing, and why they believe they will be successful in The College. Students who are approaching junior standing are required to submit a completed declaration of major form with their application. Incomplete applications will not be considered. Application deadline are July 15 for fall semester entry and December 15 for spring semester entry. Applicants will be notified by email before the start of the semester.
Education	Minimum cumulative GPA of 3.0 for inclusive and special education, inclusive early childhood special education, health and exercise science, 2.8 for selected studies in education, physical education, and health and physical education; 2.8 for secondary education (English, Mathematics, sciences, and social studies); 2.8 for art education; and 3.0 for music education. Students who meet department criteria will be admitted on a space-available basis. An interview with the assistant director of academic advising may be required, and all applications are held until the end of the semester.
Engineering and Computer	3.0 GPA. Applicants are required to complete at least one of MAT 295, 296, or 397 (with a grade of B or better) and science (by completing at least one set of PHY 211/221 or CHE 106/107 with a grade of B or better). Students who wish to major in computer

Science	science must also complete CIS 252 with a grade of at least a B.
Information Studies	Cumulative GPA of 3.2. Students must earn at least 15 credits in courses graded A-F at Syracuse before transferring. Transfers will normally take place at the beginning of the sophomore year. (Depending upon available spaces, students with GPAs below 3.2 may be considered after completion of IST 195 and IST 233 with grades of B or higher. However, there may be times when GPA requirements will be higher than 3.2 due to space considerations.) They must also meet other criteria as determined by the faculty of the School.
Management	Students interested in transferring must attend an informational session in order to obtain the application materials--these meetings are held throughout the semester. Applicants must earn a 3.4 cumulative GPA and 30 credits at SU, including two of the following: ECN 203, MAT 183, MAT 221, MAT 284 (or equivalent substitutes). The Whitman School only admits new students in the fall semester; spring admission will not be considered. Student must visit the Whitman Undergraduate Office (Suite 215) for additional information and advising.
Public Communication	Applicants must complete a minimum of 30 graded (not P/F) credits at SU before they are eligible for internal transfer. Admission is based upon a student's cumulative Syracuse GPA. Applicants who meet the minimum credit qualifications are rank-ordered by GPA and admitted in that order, highest to lowest, until all seats are filled. The cumulative GPA includes all courses taken at SU. The GPA required for admission varies each semester, depending upon the number of spaces available and the number and strength of the applicants. Because Newhouse majors require a minimum of four semesters to complete, juniors and seniors are ineligible to transfer. (A junior is defined as a student who has earned 54 credits.) Application deadlines are Dec. 15 for spring admission and May 1 for fall admission.
Sport and Human Dynamics	GPA variable, depending on major. Departments may have additional criteria. Applicants are required to discuss tentative transfer plans with the academic chair or director of the proposed program of study. Students who meet department criteria will be admitted on a space-available basis. Transfer requests may be held until the end of the semester.
University College	GPA variable, depending on major. Probation students accepted pending the approval and recommendation of the student's school/college.
Visual and Performing Arts	3.0 cumulative GPA required for all programs. Additional requirements: Portfolio for art and design/transmedia; audition for drama and music; essay for Bandier program; interview with department chair for communication and rhetorical studies. Application deadlines for CRS are Oct. 15 for spring admission and Mar. 1 for fall admission. Admission for all programs on a space available basis.

## Leave Of Absence, Withdrawal And Readmission

If you leave the University before completing your degree requirements, you must file for an official leave of absence, whether or not you intend to return to SU. If you register but then leave without notifying the University, you will continue to incur tuition, room, board, and other charges. On your transcript, course registrations will remain and any grades or grading symbols submitted by your instructors will appear. If you don't register at all, the notation "Discontinuation -- non-attendance" will appear on your transcript. Discontinued students must follow formal readmission procedures.

### Leave Of Absence

Undergraduates initiate the leave of absence process through their school/college undergraduate office. Graduate students file an Official Leave of Absence/Withdrawal form through their academic department. A leave of absence is not available to a student who has a pending disciplinary action.

#### Medical Leaves of Absence

Students leaving the University for medical and/or psychological reasons must go through the Office of Student Assistance, 306 Steele Hall, and obtain approval of Health Services and/or the Counseling Center for a medical leave to take effect. If extraordinary circumstances exist, you may apply to the appropriate department/school/college for retroactive approval of a medical leave of absence. This application must be made within 60 days of your last date of class attendance.

#### Military Leaves of Absence

Undergraduates being activated by the military should initiate a leave of absence procedure through the home school/college undergraduate office; graduate students should contact their academic department. The dean's office or academic department will advise about options to drop courses, take class standing grades, or take Incompletes, as well as the academic implications of these options.

### Withdrawal

SU will officially withdraw students who are suspended for academic or disciplinary reasons; the suspending school/college or the Division of Student Affairs will initiate the withdrawal. A student who chooses to leave the University rather than participate in the judicial or academic integrity review process will be classified as having been withdrawn for disciplinary reasons. The University may also withdraw students for medical reasons or for academic integrity violations. Officially withdrawn students lose matriculation status; however, matriculation may be reinstated if all requirements for readmission are met (see "Readmission/Termination of Leave of Absence").

**Enforced Medical Withdrawal** An enforced medical withdrawal may be imposed in response to behavior that has its basis in a psychological or other medical condition including, but not limited to, situations in which a student fails to attend and participate actively in an appropriate assessment, educational program, or other intervention; and situations in which student behavior poses a significant health or safety risk to the student or others. The senior vice president and dean of student affairs, or one or more of her/his designees will make the determination that an enforced medical withdrawal should occur, consistent with the process enumerated in the University Judicial System Handbook.

**Academic and Financial Implications of Leaves and Withdrawals** For academic and financial purposes, the effective date is either the date the Official Withdrawal/Leave of Absence form is approved by the undergraduate home school/college or the graduate student's department, or the day after the end of the current semester, whichever is later.

You can't receive Incomplete grades for courses in which you were enrolled if you take a leave of absence or are withdrawn; only grades of WD or F can be recorded on your transcript. If you register for a future semester and subsequently take a leave of absence or are withdrawn, then your registration for that semester will be canceled.

**Transcript Notation and Effective Date** Leaves of absence and withdrawals will be noted by effective date on the transcript. The transcript notation for leaves of absence is "Leave of Absence-- Student Initiated," and for withdrawals, "Withdrawal-- University Initiated." The transcript will be marked with "violation of academic integrity policy" when an established violation results in suspension or expulsion. This designation will be permanently retained on the transcript.

You are responsible for initiating any requests for refund, including those that result from medical leaves. See TABLE L and [Tuition, Fees and Related Policies](#) for the complete statement of SU's policy and requirements for refunds for withdrawals and leaves of absence.

**TABLE L Academic And Financial Effects Of Dropping Or Withdrawing From A Course, Leaves Of Absence, And Withdrawal From The University**

Action	Date	Effect on Transcript	Effect on Financial Aid	Effect on Tuition and Fees
Drop a class, take a leave of absence, or be withdrawn from the University	On or before the financial drop deadline (in fall and spring, three weeks from the first day of classes for regular session or the class-specific deadline for flexible format classes)	Class(es) dropped	For leaves and withdrawals, all financial aid is canceled.	All charges, except the nonrefundable portion, will be refunded. <sup>1</sup>
Drop a class, take a leave of absence, or be withdrawn from the University	After the financial drop deadline and on or before the academic drop deadline of the class <sup>3</sup>	Class(es) dropped <sup>2</sup>	For leaves and withdrawals, see footnote. <sup>1</sup> No adjustments are made for individual dropped classes..	For individual dropped classes, all charges remain. For leaves and withdrawals, see footnote. <sup>1</sup>
Withdraw from a class, take a leave of absence, or be withdrawn from the University	After the academic drop deadline and on or before the class withdrawal deadline	Class(es) remain(s) on transcript with withdrawal (WD) grading symbol <sup>2</sup>	For leaves and withdrawals, see footnote. <sup>1</sup> No adjustments are made for individual dropped courses.	For individual classes, all charges remain. For leaves and withdrawals from the University, see footnote. <sup>1</sup>
Take a leave of absence or be withdrawn from the University	After the course withdrawal deadline	All classes graded "F" <sup>2</sup>	For leaves and withdrawals, see footnote. <sup>1</sup> No adjustments are made for individual dropped classes.	See footnote. <sup>1</sup>

<sup>1</sup> Federal regulations governing refunds and adjustments to federal financial aid, and adjustments to institutional scholarships and grants require careful review. Please see the current Tuition, Fees & Related Policies for details.

<sup>2</sup> Classes completed before the effective date of the leave of absence or withdrawal may be graded.

<sup>3</sup> University College students should consult the Part-Time Studies Course Schedule for interim dates and deadlines.

## Readmission

If you plan to re-enroll at SU, you must apply for readmission. Approval of your readmission may be affected by any of the following conditions:

- Your school/college and program must have available space to accommodate your inclusion.
- You may need to satisfy new requirements in your academic program or even change your major, depending upon curricular changes that may have occurred during your absence. Your school/college and/or department will determine the available options.
- You must meet all outstanding SU financial obligations.
- If your leave/withdrawal was conditional, you must resolve the appropriate issues and obtain readmission approval from the academic unit or office that authorized or required your leave/withdrawal.

If you left the University without requesting an official Leave of Absence, you must follow formal readmission procedures as set by your school/college.

After you're readmitted, you may register for the upcoming semester during the regular registration period, during the schedule adjustment period prior to the start of the semester, or on the registration day for new students at the beginning of the new semester.

## Undergraduate Students

If you are applying for readmission following an academic withdrawal:

- Arts and Sciences, Education, Public Communications, Sport and Human Dynamics, and Visual and Performing Arts students are eligible to apply for readmission after one academic year from the date of an academic withdrawal. In addition, some Sport and Human Dynamics students may be eligible for fast-track readmission (see the college's policies).
- Other schools/colleges allow readmission applications after one calendar year from the date of an academic withdrawal.
- Your school/college may place you on academic probation for the first semester after you are readmitted.

If you are readmitted to SU, you will regain your matriculation status, unless you are readmitted to University College as a special student.

**Special Student Status** After an academic dismissal, with home school/college and University College approval, you may apply for readmission and transfer to University College as a special student. Special students are limited to a maximum registration of six credit hours in the first semester at University College. You may apply for readmission and transfer to a main campus school/college after earning a minimum of 12-15 credits with a minimum cumulative GPA of 2.0.

Arts and Sciences students must obtain permission from Arts and Sciences before applying for special student status through University College. This process requires an interview and a contract.

## Majors

### Undergraduate Students

A major program consists of a minimum number of credit hours of junior- and senior-level courses in a formally approved program of study. The purpose of the major is to provide depth of knowledge and competence in a subject area of special interest. You must declare a major and complete all requirements of the major in order to earn an SU degree.

Each school/college determines the courses, number of credit hours, and other requirements for its major programs of study. You must apply for and be accepted into a major by the beginning of your junior year. If you don't officially declare a major by the start of the registration period at the end of the first semester of your junior year, you will be prevented from registering for the next term.

In the following schools/colleges the indication of intended major on the application for admission and/or intra-University transfer is unofficial.

School/College	Notes
Arts and Sciences	There are specific procedures for being formally admitted to a major. Students declaring a major are considered to be pursuing the B.A. (Bachelor of Arts) degree. Students who wish to pursue the B.S. (Bachelor of Science) degree in Arts and Sciences must petition the department offering the major to be formally accepted as a candidate. Of the upper-division credits counted toward the completion of a major, at least 12 must be SU letter-graded course work.
Management, Visual and Performing Arts, University College	There are specific procedures for being formally admitted to a major.

TABLE M Double Majors (In Single Degree Programs)

School/College	Notes
Architecture	Students may not have a double major.
Arts and Sciences	A maximum of six credits of coursework at the 300 level or above may overlap among all majors and minors. For each major program, all but six credits of upper-division coursework counted toward that major must be exclusive to that major. Arts and Sciences students who pursue a major in another school/college must earn a minimum of 96 credits in the College of Arts and Sciences.
Engineering and Computer Science	Completion of a second Engineering and Computer Science major within the college requires completion of all program of study requirements for each major. Students pursuing any combination of double majors where one or both are Engineering and Computer Science majors must complete the Engineering and Computer Science programs of study in their entirety.
Management	To complete a double major in Management, students complete all required courses for each major. Courses that are applicable to multiple majors may only be used to fulfill the requirements of one major. General Management Studies cannot be one of the majors in a double major program for Management students. Double majors outside Management usually require completion of additional credits.  Management majors are not available to singly enrolled students in other schools/colleges.
Public Communications	Public Communications students may only have one major in the School of Public Communications.

## Minors

### Undergraduate Students

Minors provide a systematic opportunity to focus on an area of interest. Minors may be required as part of a degree program, or they may be selected voluntarily. Because of limited space in high-demand courses, admission to some minors may be restricted. The proportion of liberal arts and sciences courses required for the degree must be maintained, and minors that are too closely related to your major will not be approved. Minors require a minimum of 18 credit hours, 12 of which must be in 300- to 400-level coursework.

### School/College Rules

School/college	Rules
Arts and Sciences	At least 15 of the credit hours for a minor must be SU letter-graded coursework. A maximum of six credits of coursework at the 300 level or above may overlap among all majors and minors. For each major or minor program, all but six credits of upper-division coursework counted toward requirements must be exclusive to that program.
Education	Minors must be declared by the end of the junior year or 6th semester of study.
Management	Normally, at least 15 of the credit hours for a minor must be SU letter-graded coursework. Exceptions are granted by petition only.

The department or school/college offering the minor determines the requirements, and any exception to the minor requirements must be granted by petition through the sponsoring unit.

Once your school/college has certified completion of both your degree and your minor, the minor will appear on the transcript.

## Registration

You must be officially registered in order to attend classes. You may not attend, audit, be evaluated or otherwise participate in courses without being officially enrolled. An instructor may not allow you to attend classes and/or submit work unless your name appears on the official class list or unless you are attending with the instructor's approval for the purpose of making up an Incomplete. Registration may be prevented for financial, academic, or other reasons.

You must register for classes in the semester in which you begin work for those classes. You may not attend a class without officially registering, and then register for the class as if it were taken in a subsequent term, either for financial reasons or for scheduling convenience. Advisors and faculty should not advise such actions, and students are held to the policy even if such advice or permission is given. If you do not register appropriately and grades are later reported for recording on your transcript, you'll be dropped from the later course registration and retroactively registered in the term during which you actually took the course. The Bursar's Office will adjust tuition and fees to those in effect at that time.

The same rule also applies to internships taken for credit, independent study, experience credit, etc.: You must register during the semester or summer session in which work begins. Retroactive registration is not permitted for such work done without faculty oversight.

Before you register, you will need to clear all holds. If outstanding bills are not paid by Aug. 1 for fall semester, and by Dec. 15 for spring semester, your early registration for the next semester may be canceled and you will be unable to re-register until the semester begins. Your current semester's registration may be canceled if you have not met the University's immunization requirements.

New students register just before the term begins. Returning students are eligible to register for the next semester during the registration period at the end of fall and spring semesters. Part-time students register through University College or, for the School of Education's Extended Campus courses, through Extended Campus. Adding of courses or entire registrations after the late registration and add deadline may be done by petition only.

SUNY College of Environmental Science and Forestry and SUNY Upstate Medical University Courses: Because of the University's relationship with SUNY ESF and SUNY UMU, you may take courses at those institutions with the approval of your SU school/college/academic department, subject to availability and fulfillment of any specific requirements. Conversely, SUNY ESF and SUNY UMU students who meet course requirements may take SU courses, subject to availability and in accordance with the rules and approval of their home institution.

### Maximum Course Load (Fall And Spring)

#### Graduate Students

The maximum course load for graduate students is 15 credits each semester. In some part-time programs the maximum course load may be lower. Registration for additional credits requires a petition and approval of your academic department.

#### Undergraduate Students

Full-time undergraduate students typically register for 12-19 credits per semester. Students in good standing in the Renée Crown University Honors Program may register for more than 19 credits without approval of their home school/college. Other students may petition their home school/college to register for more than 19 credits. Undergraduates registering for more than 19 credit hours will be assessed the appropriate extra tuition charges, unless they qualify for an overload rate exception.

## Summer Registration

University College coordinates all summer registration for returning and visiting students. Matriculated SU students in good academic standing, as well as visiting and non-matriculated students, are eligible to register for summer sessions. Undergraduate students who were full-time during the spring semester and who intend to register as full-time during the fall semester may not transfer to part-time continuing education status for the summer.

## Maximum Course Load (Summer)

### Graduate Students

Graduate students may register for a maximum of 6 credits in a six-week session (with Maymester and Summer Session I considered as one session for this purpose), and a maximum of 12 credits in any summer. In some full-time programs the maximum course load may be higher and in some part-time programs the maximum course load may be lower. Registration for credits above the maximum set by your program requires a petition and approval of your academic department.

### Undergraduate Students

Undergraduates may register for a maximum of 7 credits in a six-week session (with Maymester and Summer Session I considered as one session for this purpose), and a maximum of 14 credits in any summer. Students may petition their home school/college to register for additional credits in a session or for summer.

## Graduate Students Taking Undergraduate-Level Courses

Prior to registration, graduate students may petition to register for an undergraduate-level course, with the exception of PED courses, which do not require a petition. An undergraduate course taken by a graduate student appears on the graduate section of the transcript with a notation to indicate the course is undergraduate-level and, unless flagged to remove it from calculation, the course counts toward overall credit and GPA calculations on the transcript. However, an undergraduate-level course does not fulfill graduate degree requirements.

## Undergraduates Taking Graduate-Level Courses

Registration for a graduate-level course is subject to a variety of restrictions, depending upon how the course is intended to apply toward your undergraduate or graduate degree requirements. Taking a graduate course as restricted graduate credit, with the intention of later applying it toward a graduate degree or certificate program, requires prior approval.

A graduate course taken by an undergraduate appears on the undergraduate section of the transcript with a notation to indicate the course is graduate level, and the course counts toward overall undergraduate credit and GPA calculations. However, a graduate-level course neither fulfills undergraduate degree requirements (unless it has specifically been approved for that purpose, either as part of the degree program's requirements or by petition prior to registration), nor does it count toward calculations for certification, e.g., for University honors.

## Changes To Registration

You may make changes to your registration after the semester begins, adding, dropping, or withdrawing from classes in accordance with published deadlines. Courses with nontraditional start and/or end dates have different deadlines than full-semester courses. While the student normally initiates registration and subsequent changes, the student's school(s)/college(s) of enrollment may also initiate such actions. Instructors also have the option to administratively drop students who do not attend the first week of classes (up to and including the add deadline). The administrative drop option for instructors is not available in Maymester.

The Health Center or the Bursar's Office may cancel your registration. No other University persons or units may make substantive changes to an undergraduate student's schedule of classes without first securing the formal permission of your home school/college.

## Religious Observances, Policy On

SU recognizes the diverse faith traditions represented among its campus community and supports the rights of faculty, staff, and students to observe according to these traditions. Students are asked to consider that it is more difficult to arrange appropriate accommodations in some kinds of courses, e.g., those that have certain kinds of laboratories or a significant experiential learning component, so students should consider their need for accommodation for religious observances as they plan their schedule each semester. Students should recall that not every course is offered every academic year and that the catalog indicates how frequently each course is offered.

Faculty are asked to make appropriate accommodation for students' observance needs by providing an opportunity to make up any examination, study, or work requirement that is missed because of an absence due to a religious observance, provided the instructor has been notified no later than the end of the second week of classes. No fees will be charged to the student for the costs incurred by the University for such make-up work. If a faculty member is unwilling or unable to make an appropriate accommodation, the student should consult his or her academic dean.

## Research Involving Human Or Animal Subjects

Students are required to submit copies of any research proposal that involves human subjects to the Institutional Review Board (IRB) for review. No research or teaching using live vertebrate animals may be undertaken until the protocol is approved by the Institutional Animal Care and Use Committee (IACUC).

## Residency Requirement

All students must complete a minimum number of credit hours at SU in courses offered through duly registered graduate programs order to be granted a Syracuse University degree. Advanced Credit (AC) exams may not be applied toward the residency requirement.

### Graduate Students

Master's degree candidates must take at least 70 percent of credit hours for the degree while at SU. See "Calculation of Credit Hours Toward Degree Requirements" for school/college-specific exceptions.

Doctoral students must take at least 50 percent of coursework, exclusive of dissertation, in courses offered through an SU-registered graduate degree program. Experiential learning credit and professional experience courses don't count toward the residency requirement.

### Undergraduate Students

You must take at least 30 credit hours of coursework at SU to qualify for the degree; in most cases more than 30 credits will be required in order to fulfill degree requirements. Work necessary to complete a major must be completed at SU unless a waiver is granted by the appropriate major department.

SU courses taken while a student is matriculated at SUNY ESF do count toward the residency requirement. ESF courses taken while a student is matriculated either at SUNY ESF or at SU do not count toward the SU residency requirement.

University College Candidates for associate's degrees, bachelor of liberal studies degrees, or bachelor of professional studies degrees must complete a minimum of 30 credit hours of SU coursework while enrolled as part-time students at University College. Credits earned at SU while enrolled as a full-time student do not count toward this requirement.

## Retaking Courses

Some programs require the retaking of courses in which unsatisfactory grades (as defined by the program) were earned. Retaking courses may also be prohibited under certain circumstances.

- Language courses A course cannot be retaken once you have successfully completed a higher level course in the same language.
- Mathematics courses A course cannot be retaken once you have completed a higher level course in the same mathematics curriculum sequence with a grade of C or better.

Table A describes other rules for undergraduates who want to retake courses. Also see "Flagging Courses That Have Been Retaken." Note that retaken courses may not count toward eligibility and satisfactory progress requirements for certain types of financial aid awards.

### Graduate Students

You may retake a course in which you earned a grade of C+, C, C- or F, with the approval of your academic unit and the Graduate School. Graduate courses may be retaken only once. A retaken course replaces the original course on your degree program of study, but both the original course and the retaken course will appear on your transcript and both courses will calculate, unless the original course is flagged.

## Student Academic Work

Student work prepared for University courses in any media may be used for educational purposes, if the course syllabus makes clear that such use may occur. You grant permission to have your work used in this manner by registering for, and by continuing to be enrolled in, courses where such use of student work is announced in the course syllabus.

After you have completed such courses, any further use of your work will meet one of the following conditions:

- the work will be rendered anonymous by removing all of your personal identification, or
- your written permission will be secured.

As a generally accepted practice, dissertations, graduate theses or research projects, honors theses, or other capstone projects submitted in partial fulfillment of degree requirements are placed in the library, University Archives, or department for public reference.

## Student Status

### Enrolled Students

A student is considered enrolled at the University until one or more of the following occurs: (1) the student graduates; (2) the student takes a leave of absence; (3) the student is withdrawn from the University for academic, medical or disciplinary reasons; (4) the student fails to register; or (5) the student's registration is cancelled by the University.

## Matriculated Students

A matriculated student is defined as one who has applied for, been formally admitted to, and has registered for one or more courses in the degree or certificate-granting program to which he/she has been admitted. You must be matriculated to receive a degree or certificate from the University. Students who take an official leave of absence maintain matriculation status.

## Non-Matriculated Students

Non-matriculated students are held to the same academic standards as matriculated students.

A non-matriculated graduate student is one who has earned a bachelor's degree at SU or elsewhere, but has not been formally admitted to a degree or C.A.S. program at SU. This status applies whether registering for graduate or undergraduate courses.

A non-matriculated undergraduate student is one who has neither earned a bachelor's degree nor been formally admitted to the University.

- Undergraduates who are academically dismissed from a school/college and accepted into University College as “special students” are considered non-matriculated.
- Taking courses at University College does not imply matriculation, since you must be formally admitted to an SU degree program in order to become matriculated.
- Students who are withdrawn from the University become non-matriculated. Upon readmission, matriculation status is regained.

## Full-Time And Part-Time Status

The University's certification of a student's status is based solely on the criteria stated in this rule. Students who meet SU's requirements for full-time or part-time status may not meet requirements for such status as defined by other agencies or institutions. Conversely, students who do not meet the University's requirements for full-or part-time status may be considered full-time or part-time by other agencies.

### Graduate Students

#### Full-time

A graduate student is considered full time under any one of the following conditions:

- registered for full-time study (9 credits for fall, spring, or summer in a program approved by the student's advisor)
- holding an appointment as a graduate assistant or fellow and registered for the semester (fall and spring only)
- registered for fewer than 9 credits but for at least 0 (zero) credits of thesis, dissertation, or degree in progress for the semester and engaged, at a level equivalent to full-time study in one or more of the following activities as certified by your program.
  - studying for preliminary, qualifying, or comprehensive exams
  - studying for a language or tool requirement
  - actively working on a thesis or dissertation
  - an internship

A law student is full-time if enrolled for 12 credits in a fall or spring semester. If matriculated in a joint/dual degree program that includes the J.D. degree, then the law requirement for full-time status takes precedence over the 9 credit criterion for full-time status as stated above.

\*Syracuse University considers 9 credits per term to be full-time study for graduate study. The New York State Education Department, based on NYS Education Law and the Regulations of the Education Commissioner, define full-time study to be 12 credits per semester for educational requirements for state academic awards and loans.

#### Part-Time (Fall, Spring, and Summer)

Graduate students who do not meet the requirements for full-time status are considered part time.

### Undergraduate Students

#### Full-time (Fall, Spring, and Summer)

Undergraduates are full time if registered for 12 or more credits during any semester. Registration for 6 credits in a six-week summer session confers full-time status for the session.

#### Part-time (Fall, Spring, and Summer)

Undergraduates enrolled for fewer than 12 credit hours are considered to be part time.

Exception: Engineering and Computer Science Students registered in the Cooperative Education program for zero hours in semesters when they are on work assignments are considered to be full time.

The number of credit hours carried by a part-time student may affect eligibility for University housing and financial aid. For purposes of financial aid, students registered for 9-11 credit hours are considered three-quarter time; students registered for 6-8 credit hours are considered half-time students; students registered for 0-5 credit hours are considered less than half time.

## Transcript

SU maintains a permanent academic transcript showing complete course and grade-earned information for every student, matriculated or non-matriculated, who takes credit-bearing coursework through any SU program. The transcript may not be modified or selectively deleted for any reason, including ignorance of deadlines or academic rules. Once a degree is conferred, the transcript may not be changed except for subsequently discovered fraud or academic

dishonesty, assessments that more accurately represent academic work completed prior to degree certification, or to correct administrative error. In extreme cases, such changes may include the rescinding of a degree.

Transcripts of courses taken and degrees received at SU are maintained by the Registrar's Office in accordance with the policies of the American Association of Collegiate Registrars and Admissions Officers. Official transcripts show the entire record of all coursework, both undergraduate and graduate, matriculated and non-matriculated. Undergraduate and graduate transcript records print separately, but are issued and sent together for students with more than one SU academic career. Coursework is displayed chronologically within each career record, with one GPA calculation for the career. However, within that distinction the transcript is not degree-specific: i.e., it does not designate courses that apply to multiple specific degree programs at the same level. Such information may only be obtained from the student's school/college for undergraduate degrees; the academic department for graduate programs; or the College of Law for law degrees.

All courses taken at SU Abroad centers are listed on students' transcripts. Credit hours and grades are computed in the GPA in the same manner as any other Syracuse University courses. Courses taken through SU Abroad at foreign institutions may be listed on students' transcripts with credit hours and grades computed in the GPA in the same manner as any other Syracuse University course, or as transfer credit, as determined by SU departmental review.

SU does not maintain a transcript record of SU courses taken by SUNY ESF students. For ESF students, ESF is the college of record. ESF courses taken by matriculated SU students appear on the SU transcript and calculate in the same way as SU courses, except for graduate students admitted to concurrent master's degree programs.

Syracuse University cannot provide copies of transcripts it has received from other institutions to third parties. Students must request transcripts from the originating institution.

Transcripts may be obtained from the Registrar's Office. SU reserves the right to withhold copies of transcripts of students who have unfulfilled financial obligations to the University or by request of the Office of Student Rights and Responsibilities.

Access to transcripts and other student records is protected by the Family Educational Rights and Privacy Act. (See "Student Rights Under the Family Educational Rights and Privacy Act")

# Academic Offerings

OFFERING	MINIMUM CREDITS REQUIRED	HEGIS
Accounting		0502
B.S.	121	
Accounting (Minor)		
Acting		1007
B.F.A.	124	
Addiction Studies (Minor)		
Advertising		0604
B.S.	122	
Advocacy and Public Rhetoric (Minor)		
Aerospace Engineering		0902
B.S.	128	
Aerospace Engineering/Business Administration (Combined U/G)		0902,0506
BS/MBA	150	
African American Studies		2211
B.A.	120	
African American Studies (Minor)		
African American Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2211,2201
BA/MS	150	
Animation (Minor)		
Anthropology		2202
B.A.	120	
Anthropology (Minor)		
Anthropology (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2202,2201
BA/MS	150	
Applied Mathematics		1703
B.A.	120	
B.S.	120	
Applied Statistics (Minor)		
Arabic (Minor)		
Architecture		0202
B.Arch.	162	
Architecture (Minor)		
Art Education		0831
B.F.A.	127	
Art History		1003
B.A.	120	
Art History (Minor)		
Art Photography		1011
B.F.A.	129	
Art Photography (Minor)		
Art Video		1010
B.F.A.	129	

Arts and Sciences/Art		1002
B.A.	120	
Arts and Sciences/Music		1005
B.A.	120	
Asian/Asian American Studies (Minor)		
Biochemistry		0414
B.S.	120	
Bioengineering		0905
B.S.	131	
Bioengineering/Business Administration (Combined U/G)		0905,0506
BS/MBA	150	
Biology		0401
B.A.	120	
B.S.	120	
Biology (Minor)		
Biology (T chr Prep)/Science Ed (Biology): Prep 7-12 (5 Yr) (Combined U/G)		0401
BA/MS	150	
BS/MS	150	
Biophysical Science		0499
B.A.	120	
Bioprocess Science - ESF (Minor)		
Biotechnology		0499
B.S.	120	
Broadcast and Digital Journalism		0603
B.S.	122	
Ceramics		1009
B.F.A.	129	
Ceramics (Minor)		
Chemical Engineering		0906
B.S.	128	
Chemical Engineering/Business Administration (Combined U/G)		0906,0506
BS/MBA	150	
Chemistry		1905
B.A.	120	
B.S.	120	
Chemistry (Minor)		
Chemistry (T chr Prep)/Science Ed (Chem): Prep 7-12 (5 Yr) (Combined U/G)		1905,1905
BA/MS	150	
BS/MS	150	
Child and Family Policy (Minor)		
Child and Family Studies		1305
B.S.	124	
Child and Family Studies (Minor)		
Chinese Studies (Minor)		

Citizenship & Civic Engagement		2299
B.A.	120	
Civil Engineering		0908
B.S.	127	
Civil Engineering/Business Administration (Combined U/G)		0908,0506
BS/MBA	150	
Classical Civilization		0399
B.A.	120	
Classical Civilization (Minor)		
Classics		1504
B.A.	120	
Classics (Minor)		
Cognitive Science (Minor)		
Communication and Rhetorical Studies		1506
B.S.	120	
Communication and Rhetorical Studies (Minor)		
Communication Sciences and Disorders		1220
B.S.	120	
Communication Sciences and Disorders (Minor)		
Communications Design		1009
B.F.A.	129	
Communications Photography (Minor)		
Computer Art and Animation		1009
B.F.A.	129	
Computer Engineering		0999
B.S.	129	
Computer Engineering (Minor)		
Computer Engineering (Combined U/G)		0999.00
BS/MS	156	
Computer Engineering/Business Administration (Combined U/G)		0999,0506
BS/MBA	150	
Computer Gaming (Minor)		
Computer Science		0701
B.S.	123	
Computer Science (Minor)		
Computer Science (Combined U/G)		0701
BS/MS	147	
Computer Science/Business Administration (Combined U/G)		0701,0506
BS/MBA	150	
Computer Science/Computer Science (Combined U/G)		0701,0701
BS/MS	150	
Construction Management- ESF (Minor)		
Creative Leadership		0506
B.P.S.	120	
Creative Leadership (Certificate)		5004

Certificate	15	
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Disability Studies (Minor)		
Drama		1007
B.S.	120	
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Drama (Minor)		
Earth Sciences		1917
B.A.	120	
B.S.	120	
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Earth Sciences (Minor)		
Earth Sciences (Tchr Prep)/Science Ed (Earth Sci): Prep 7-12 (5 Yr) (Combined U/G)		1917,1917
BA/MS	150	
BS/MS	150	
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Economics		2204
B.A.	120	
B.S.	120	
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Economics (Minor)		
Economics (Tchr Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2204,2201
BA/MS	150	
BS/MS	150	
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Education Studies (Minor)		
Electrical Engineering		0909
B.S.	132	
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Electrical Engineering (Minor)		
Electrical Engineering (Combined U/G)		0909.00
BS/MS	156	
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Electrical Engineering/Business Administration (Combined U/G)		0909,0506
BS/MBA	150	
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Energy and Its Impacts (Integrated Learning Major)		1901.00
B.A.	120	
B.S.	120	
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Energy Systems (Minor)		
Engineering & Computer Science Management (Minor)		
English and Textual Studies		1502
B.A.	120	
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English and Textual Studies (Minor)		
English and Textual Studies (Tch Prep)/English Ed:Prep 7-12 (5 Yr) (Combined U/G)		1502,1501
BA/MS	150	
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English Education 7-12		1501.01
B.A.	123	
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Entrepreneurship & Emerging Enterprises (Minor)		
Entrepreneurship and Emerging Enterprises		0506
B.S.	121	
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Environment and Society (Minor)		
Environmental and Interior Design		0203.00

B.F.A.	120	
Environmental Engineering		0922
B.S.	128	
Environmental Engineering/Business Administration (Combined U/G)		0922,0506
BS/MBA	150	
Ethics (Integrated Learning Major)		1599.10
B.A.	120	
B.S.	120	
European Literature		1101
B.A.	120	
Exercise Science (Minor)		
Exercise Science (Dance) (Minor)		
Fashion Design		1009
B.F.A.	120	
Film		1010
B.F.A.	129	
Finance		0504
B.S.	121	
Finance (Minor)		
Fine Arts		1001
B.A.	120	
Fine Arts (Minor)		
Food Studies Major		2299.00
B.S.	120	
Food Studies Minor (Minor)		
Forensic Science (Minor)		
Forensic Science (Integrated Learning Major)		199.20
B.A.	120	
B.S.	120	
French and Francophone Studies		1102
B.A.	120	
French and Francophone Studies (Minor)		
General Studies in Management		0506
B.S.	121	
Geography		2206
B.A.	120	
Geography (Minor)		
Geography (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2206,2206
BA/MS	150	
German (Minor)		
German Language, Literature, and Culture		1103
B.A.	120	
Global Enterprise Technology (Minor)		
Global Political Economy (Minor)		

## Global Security Studies (Minor)

Graphic Design		1009
B.S.	122	
Health and Exercise Science		1299.3
B.S.	125	
Health and Physical Education		0835
BA/BS	135	
Health and Wellness (Minor)		
History		2205
B.A.	120	
History (Minor)		
History (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2205, 2201
BA/MS	150	
History of Architecture		1003
B.A.	120	
History of Architecture (Minor)		
History of Art		1003
B.F.A.	126	
Illustration		1009
B.F.A.	126	
Inclusive Early Childhood Special Education Teacher Preparation		0808
B.S.	134	
Inclusive Elementary and Special Education Teacher Preparation		0808
B.S.	132	
Industrial and Interaction Design		1009
B.I.D.	156	
Information Management and Technology		0702
B.S.	120	
Information Mgmt & Technology (Minor)		
Information Technology, Design & Startups (Minor)		
Interdisciplinary Minor In Gerontology (Minor)		
International Business (Minor)		
International Relations		2210
B.A.	120	
International Relations (Tch Prep-5 yr.)/Social Studies Ed: Prep 7-12 (5yr.) (Combined U/G)		2210,2201
BA/MS	150	
Iroquois Linguistics for Language Learners (Certificate)		1505.00
Certificate	15	
Italian (Minor)		
Italian Language, Literature, and Culture		1104
B.A.	120	
Jazz Studies (Minor)		
Jewelry & Metalsmithing (Minor)		
Jewelry and Metalsmithing		1009

B.F.A.	126	
Jewish Education (Minor)		
Jewish Studies (Minor)		
Knowledge Management		
		0799
B.P.S.	120	
Knowledge Management (Certificate)		
		0799
Certificate	15	
Landscape Architecture-ESF (Minor)		
Latin American Studies (Minor)		
Latino-Latin American Studies		
		0308
B.A.	120	
Latino-Latin American Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		
		0308,2201
BA/MS	150	
Leadership/Stewardship Communication (Minor)		
LesbianGayBsxITransgndr Stdies (Minor)		
Liberal Arts		
		5649
A.A.	60	
Liberal Studies		
		4901
B.A.	120	
Linguistic Studies		
		1505
B.A.	120	
Linguistic Studies (Minor)		
Logic (Minor)		
Magazine		
		0602
B.S.	122	
Management		
		0506
B.A.	121	
Management Studies (Minor)		
Marketing (Minor)		
Marketing Management		
		0509
B.S.	121	
Mathematics		
		1701
B.A.	120	
B.S.	120	
Mathematics (Minor)		
Mathematics (Tch Prep)/Mathematics Ed: Prep 7-12 (5 Yr) (Combined U/G)		
		1701,1701
BA/MS	150	
BS/MS	150	
Mathematics Education 7-12		
		1701.01
B.S.	123	
Mechanical Engineering		
		0910
B.S.	128	
Mechanical Engineering/Business Administration (Combined U/G)		
		0910,0506
BS/MBA	150	

Medical Anthropology (Minor)		
Medicolegal Death Investigation (Certificate)		1999
Medieval & Renaissance Studies (Minor)		
Middle Eastern Studies		0309
B.A.	120	
Middle Eastern Studies (Minor)		
Mindfulness and Contemplative Studies (Minor)		
Modern Foreign Language		1101
B.A.	120	
Modern Jewish Studies Major		0399.00
B.A.	120	
Music		1005
B.A.	126	
Music Composition		1004.10
B.Mus.	128	
Music Education		0832
B.Mus.	132	
Music History and Cultures		1006
B.A.	120	
Music History and Cultures (Minor)		
Music Industry		1004
B.Mus.	120	
Music Industry (Minor)		
Music Performance (Minor)		
Musical Theater		1007
B.F.A.	128	
Nat Resources & Envir Plcy-ESF (Minor)		
Native American Studies (Minor)		
Neuroscience (Integrated Learning Major)		0425.00
B.A.	120	
B.S.	120	
Newspaper and Online Journalism		0602
B.S.	122	
Nutrition		1306
B.S.	124	
Nutrition (Minor)		
Nutrition Science		1306
B.S.	124	
Nutrition Science (Minor)		
Organ		1004
B.Mus.	126	
Painting		1002
B.F.A.	126	
Painting (Minor)		

## Paper Science - ESF (Minor)

Percussion		1004
B.Mus.	126	
Philosophy		1509
B.A.	120	
Philosophy (Minor)		
Photography		1011
B.S.	122	
Physical Computing (Minor)		
Physical Education		0835
B.S.	120	
Physical Education (Coaching) (Minor)		
Physics		1902
B.A.	120	
B.S.	120	
Physics (Minor)		
Physics (Tchr Prep)/Science Ed (Physics): Prep 7-12 (5 Yr) (Combined U/G)		1902
BA/MS	150	
BS/MS	150	
Piano		1004
B.Mus.	126	
Policy Studies		2102
B.A.	120	
Policy Studies (Minor)		
Policy Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2102,2201
BA/MS	150	
Political Philosophy		1509
B.A.	120	
Political Science		2207
B.A.	120	
Political Science (Minor)		
Political Science (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2207,2201
BA/MS	150	
Printmaking		1009
B.F.A.	126	
Private Music Study (Minor)		
Psychology		2001
B.A.	120	
B.S.	120	
Psychology (Minor)		
Public Communications Studies (Minor)		
Public Health		1299
B.S.	123	
Public Health (Minor)		

Public Relations		0604
B.S.	122	
Real Estate		0511
B.S.	121	
Real Estate (Minor)		
Recording and Allied Entertainment Industries		1099
B.S.	125	
Recreation Resource and Protected Area Management - ESF (Minor)		
Religion		1510
B.A.	120	
Religion (Minor)		
Religion and Society		1599.10
B.A.	120	
Religion and Society (Minor)		
Religion and the Media (Minor)		
Renewable Energy - ESF (Minor)		
Retail Management		0506
B.S.	121	
Retail Management (Minor)		
Russian (Minor)		
Russian and Central Europe Std (Minor)		
Russian and Central European Studies		0307
B.A.	120	
Russian Language, Literature, and Culture		1106
B.A.	120	
Science Education (Biology) 7-12		0401.01
B.A.	123	
B.S.	123	
Science Education (Chemistry) 7-12		1905.01
B.A.	123	
B.S.	123	
Science Education (Earth Science) 7-12		1917.01
B.A.	123	
B.S.	123	
Science Education (Physics) 7-12		1902.01
B.A.	123	
B.S.	123	
Sculpture		1002
B.F.A.	126	
Sculpture (Minor)		
Selected Studies		4901
B.S.	120	
Selected Studies in Arts and Sciences		4901
B.A.	120	

Selected Studies in Education		0899
B.S.	120	
Social Studies Education 7-12		2201.01
B.A.	126	
Social Welfare (Minor)		
Social Work		2104
B.S.	120	
Sociology		2208
B.A.	120	
Sociology (Minor)		
Sociology (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2208,2201
BA/MS	150	
Sound Recording Technology		1099.00
B.Mus.	128	
South Asian Studies (Minor)		
Spanish (Minor)		
Spanish Education		1105.00
Spanish Language, Literature, and Culture		1105
B.A.	120	
Special Studies in Art		1001
B.F.A.	126	
Sport Management		0599
B.S.	124	
Sport Management (Minor)		
Stage Management		1007
B.F.A.	124	
Strategic Management (Minor)		
Strings		1004
B.Mus.	126	
Supply Chain Management		0510
B.S.	121	
Sustainable Construction Management - ESF (Minor)		
Systems and Information Science		0702
B.S.	120	
Television, Radio and Film		0603
B.S.	122	
Theater Design and Technology		1007
B.F.A.	130	
Visual Culture (Minor)		
Voice		1004
B.Mus.	126	
Wind Instruments		1004
B.Mus.	126	

Women's and Gender Studies		4903
B.A.	120	
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Women's and Gender Studies (Minor)		
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Women's and Gender Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		4903,2201
BA/MS	150	
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Writing (Minor)		
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Writing and Rhetoric		1507
B.A.	120	

## Minors At Syracuse University

A minor provides an excellent opportunity to blend another subject area into your degree program without the additional requirements of a double major or dual degree. A minor may be related to your major, or it might be in a completely different academic/professional area. Because a completed minor appears on your transcript, it highlights another dimension of educational background to support an application for graduate study or employment.

A minor is a grouping of 6 or more courses, totaling 18 to 21 credits, of which 12 credits must be in 300- to 400-level courses. A minor may be similar to and named for an existing major, such as Chemistry, or it may be an interdisciplinary grouping, like Judaic Studies. The department or college offering the minor determines which courses are required. Some colleges require a formal minor as part of the degree program.

Minor courses may or may not fit into the electives of your degree requirements. Your academic advisor or home college undergraduate office can advise you on the effect of a minor on your particular degree program, including whether or not you will need to complete more than the normal total number of credits.

### Enrolling in a Minor

Pursuing a minor should be discussed with your academic advisor as early in your academic career as possible. You will then complete a Declaration of Minor form, available in your school/college undergraduate office. The form must be signed by the department or college offering the minor and, in some cases, your advisor. Your home college's undergraduate office will review the paperwork and enter the minor on your student record. A variety of minors offered by SUNY College of Environmental Science and Forestry are also available to Syracuse University students. Information about these minors is available at: [/2014/schools/ESF/861\\_undergraduate\\_programs/minors](/2014/schools/ESF/861_undergraduate_programs/minors). Students may request admission into SUNY ESF minors using the same forms and procedures used for Syracuse University minors.

Information about minors that have enrollment limits or eligibility requirements can be obtained at the sponsoring department/college. The sponsoring unit can explain specific course requirements and options for the minor. In some cases, a minor must be officially listed on your record for you to be able to register for certain restricted courses. The department or college offering the minor determines the requirements, and any exception to the minor requirements must be granted by petition through the sponsoring department/college.

After certification by your college for graduation, and if all coursework for the minor is completed, it will appear on your transcript under the college, major, and degree listing as "MINOR IN {title}."

### Pursuing More Than One Minor

You may pursue more than one minor if there are enough elective course opportunities in your degree program or if you choose to graduate with additional credits. This possibility should be discussed with your academic advisor or school/college undergraduate office.

### Official Minors

All current official disciplinary minors are listed on the appropriate school, department, or program pages. Detailed descriptions of requirements for each minor may be found at the following link <http://coursecatalog.syr.edu/2014/programs/minor> or by contacting specific departments for minors not described in this catalog. Interdisciplinary minors within the College of Arts and Sciences and between the College of Arts and Sciences and other schools and colleges can be found here. Please be aware that not all minors are endorsed by all schools and colleges. You should verify that the minor you wish to pursue is accepted by your home college.

## Other Programs

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### English Language Institute

Geraldine de Berly, Director  
700 University Avenue, 315-443-2390  
FAX: 315-443-1530  
[elimail@uc.syr.edu](mailto:elimail@uc.syr.edu)  
<http://eli.syr.edu/>

The English Language Institute (ELI) offers English language instruction to international students and visiting professionals. It is administered through University College and offers instruction, from beginner to advanced levels.

The ELI provides intensive study of the language for those who must improve their English for academic or professional reasons. Its goal is to prepare participants to use English as quickly and effectively as possible. Instruction is offered in English grammar, reading, writing, listening, speaking, and pronunciation. Films, lectures, area trips, and special events are part of the program and are designed to help students learn English on an accelerated basis.

Students may take a series of 15-week courses with 20 hrs a week of instruction. During the summer, two 6-week sessions with 25 hours a week of instruction are offered. The Legal English course for those preparing to enroll in an LLM is available in summer. Short and long-term courses can also be designed for individuals or groups with specific needs and disciplines.

Completion of the Level 4 (high intermediate) course will waive the University TOEFL requirement for undergraduates.

## ILEARN

Kandice L. Salomone, Director  
323 Hall of Languages, 315-443-1643  
ilearn.syr.edu

The Center for Innovative Learning (iLEARN) of the College of Arts and Sciences supports a variety of innovative educational programs and undergraduate research activities in the College and its departments. It also serves as a clearinghouse for information about undergraduate research and other innovative learning opportunities, as well as a source of encouragement and support for their further development.

The center helps students complement traditional classroom and laboratory work with enhanced out-of-classroom learning experiences. These experiences represent active learning at its best, tapping students' creativity, curiosity, and drive. These kinds of opportunities also enable students to apply their knowledge and skill to independent research and other scholarly projects that engage students with current issues, and give them the kinds of experiences helpful in making career choices. Students may choose to earn academic or experience credit.

Exemplary programs:

- Undergraduate Research Program
- The Syracuse University Undergraduate Mock Trial Program
- Ruth Meyer Undergraduate Research Scholars Program

Funding opportunities:

iLEARN has funds available for use by arts and sciences undergraduate students, faculty, and departments/programs for eligible projects. Eligibility is dependent on a project's relevance to the types of educational activities listed in the mission statement. Inquiries should be made to the director of iLEARN.

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## Mary Ann Shaw Center For Public & Community Service

Pamela Kirwin Heintz, Director  
237 Schine Student Center, 315-443-3051  
<http://shawcenter.syr.edu>

The Mary Ann Shaw Center for Public and Community Service (SHAW CENTER) provides support for faculty to integrate community based service learning/research into academic coursework for undergraduate and graduate students. It does this by: furnishing organizational information about placements in nonprofit and/or public organizations for those seeking community based service learning/research opportunities; helping create new partnerships/collaborations and learning/research opportunities; and supporting ongoing academic programs/projects/courses that foster community based service learning/research on the local, national, and global levels. Since opening in 1994, the SHAW CENTER has provided assistance to faculty in the form of consultation and orientation; identification and mitigation of risk/liability issues; and ongoing support, monitoring, and evaluation. Additionally, the SHAW CENTER offers a variety of curricular and co-curricular service opportunities at nonprofit and/or public organizations. Every college within the University offers community based service learning/research opportunities for students.

The Program

Community based service learning components of courses provide opportunities for students to put the value of learning into action through community service placements. The students can connect theory and practice as they train for life, enrich their moral character, and develop their sense of civic responsibility. This educational opportunity deepens the students' sense of connectedness and responsibility to others and includes elements of vocation and avocation.

Students participate in the community based service components of their courses by completing a predetermined number of service hours at a community site. Under the direction of the course professor, teaching assistants, academic managers, and SHAW CENTER professional staff, students keep journals, write papers, do action based research, and present projects and reports to reflect on and process their community service experiences. The course professor assumes grading responsibility. Academic credit for the service learning experience is awarded by the professor through credit for the course.

The SHAW CENTER works with students, faculty, teaching assistants, academic administrators, and community site partners and supervisors to assist in successfully implementing community based learning opportunities. The SHAW CENTER provides information about placement options; orientation to the community; assistance when there are questions; transportation (on a first-come, first-served basis to the extent resources allow); and evaluation of the community service component of the course for future improvement.

Courses

Students are invited to visit the SHAW CENTER office or web site at <http://shawcenter.syr.edu/> to learn more about course options. Students are encouraged to discuss course options that interest them with the appropriate faculty advisor before registering. Students can, with the approval of the professor, request individual placements within courses to enhance assignments or course goals. The SHAW CENTER will work to help the student develop

and implement an appropriate placement, as well as assist with the reflection and processing of the experience, if appropriate.

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## Renee Crown University Honors Program

Professor Stephen Kuusisto, Director  
306 Bowne Hall, 315-443-2759

The Renée Crown University Honors Program is a selective, demanding, and rewarding program for outstanding students who seek intense intellectual challenge and are prepared to invest the extra effort it takes to meet that challenge. It is marked by four distinguishing characteristics:

- heightened expectations;
- participation in a vibrant and active community of learners;
- intensity of intellectual experience; and
- special intellectual opportunities and responsibilities.

The program is open to qualified students from all undergraduate majors at Syracuse University. Its requirements, supplemental to those of their majors, stipulate that they demonstrate the attributes of depth, breadth, command of language, global awareness, civic engagement, and collaborative capacity by successfully completing the following program requirements:

### DEPTH

1. An Honors Capstone Project, with written summary for a non-expert audience; and
2. XXX 499, Capstone Project preparation, in the major (e.g., HST 499 or ETS 499).

### BREADTH (the following three requirements):

A. An introductory honors seminar (HNR 100 for first-year students; HNR 210, HNR 220, or HNR 230 for students entering after their first year).

### B. Disciplinary Diversity

Four three-credit Honors courses, from at least two of the following divisions: humanities, social sciences, or natural sciences/mathematics. At least two of these courses must carry the HNR prefix. The remaining two courses may have the HNR prefix, or be Honors sections of regular, departmental courses. Students may substitute three one-credit, 200-level Honors seminars, taken for a grade, for one of these courses.

### C. Interdisciplinary Work (one of the following three options):

1. An approved, three-credit HNR or other course with substantial interdisciplinary content; or
2. An independent project experience, with prior approval from the Honors Program; or
3. A clearly interdisciplinary Capstone Project, with prior approval from the Honors Program and from the student's major department.

### COMMAND OF LANGUAGE (the following four requirements):

1. The Capstone Project as described under "Depth" above;
2. A written summary of the Capstone Project, as noted under "Depth" above;
3. One course or experience with a substantial public presentation requirement; and
4. Either one course with a significant quantitative component or one course in creative expression.

### GLOBAL AWARENESS (two of the following ten options; at least one must be non-Eurocentric in its focus):

1. One course that has a non-US focus (other than language courses);
2. A Capstone Project that has a non-US focus;
3. Ability in a foreign language at a level of 201 or higher;
4. An internship or other work with a documented global perspective for at least 50 hours;
5. A semester or summer abroad in a University-approved foreign study program;
6. An Honors-approved, short-term program that includes a foreign travel component (see examples at: <http://suabroad.syr.edu/programs/shortterm-programs/>);
7. At least one semester of residence in a Learning Community with an international focus.
8. Participation in the University's Maxwell in Washington Undergraduate Semester residency program (IR/DC);
9. An approved, sustained, reciprocal mentoring partnership with international students for one semester under the aegis of the Slutzker Center for International Services; or
10. An alternative path approved in advance by the Honors Program.

If the requirements of a student's major create a serious impediment to completing this requirement as stated, the student may, with prior approval from the program director, satisfy the requirement by completing two global courses, at least one of which must be non-Eurocentric.

## CIVIC ENGAGEMENT:

Demonstrate civic engagement through sustained, documented involvement over a minimum of three semesters. The minimum requirement is 50 hours in total.

## COLLABORATIVE CAPACITY (one of three options):

Successfully complete an extended activity with a team of three to five collaborators that involves significant intellectual content appropriate to the Honors Program:

1. An approved course that involves substantial teamwork; or
2. An independent project experience (in an area such as drama or engineering), resulting in production of a deliverable artifact, such as a report, presentation, or performance (requires faculty approval before work begins and at the end of the project);
3. An off-campus project (which may be done through an internship, field experience, or other activity), resulting in a deliverable artifact, such as a report, presentation, or performance, and accompanied by a written description of the experience, signed by the faculty mentor.

All courses taken to fulfill the above requirements must be completed with a grade of B or better. Honors students must complete the program with a grade point average at least at the cum laude level in their home schools or colleges (for School of Architecture students, 3.2; for Newhouse students, 3.5; for all other schools and colleges, 3.4).

Upon completion of these requirements, “Renée Crown University Honors” is awarded on the diploma and listed under “Awards and Honors” on the transcript.

## Courses

For a listing of current and past Honors courses offered each semester, go to <http://honors.syr.edu/my-honors/courses-seminars/>.

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## Reserve Officer Training Corps (ROTC)

The Reserve Officer Training Corps program is offered by the Air Force through the Department of Aerospace Studies and by the Army through the Department of Military Sciences. Both programs include a basic course taken during the freshmen and sophomore years, and an advanced course taken during the junior and senior years. Each program offers commissions in their respective service for men and women who complete the course requirements and meet other mandatory prerequisites.

Students may enroll in the first two years of either program and complete field training or basic camp without incurring any military-service obligation. Uniforms and ROTC textbooks are furnished throughout the programs. Students accepted to the second two years of the programs are given a subsistence allowance of \$450 to \$500 a month during each academic year. Two-, three-, and four-year scholarship recipients receive tuition assistance, a book allowance, lab fees, and a stipend ranging from \$300 a month for first-year students to \$500 a month for seniors for the duration of their scholarship.

Sophomores may receive credit for the basic course by attending a special, expenses-paid, five-week camp during the summer before the junior year.

Enrollment in the ROTC program is also available to seniors who expect to go directly into graduate school in a program that requires at least two academic years to complete, as well as to graduate students who will have four or more semesters remaining at the time of the next fall registration.

Academic credit awarded toward graduation requirements for military science and aerospace studies courses is determined by the individual schools and colleges.

Interested students should inquire at the ROTC office of their choice either before or at the start of the academic year or semester. Students may visit the ROTC offices in Archbold North. For more information on the individual program descriptions, refer to the course catalog or call the Unit Admissions Officer, Army ROTC, 315-443-8233; or Air Force ROTC, 315-443-2461; or visit us .

### Air Force Reserve Officer Training Corps

Lt. Col. Jonathan Landis

Professor of Aerospace Studies

303 Archbold, 315-443-2461

The goal of the Air Force Reserve Officer Training Corps is to commission second lieutenants in the U.S. Air Force. Students completing the Air Force ROTC training program will serve as Air Force officers on active duty for a minimum of four years after graduation. These students will have learned to exercise leadership, think critically and creatively, and communicate effectively. All cadets are required to complete the Air Force ROTC course sequence. The ROTC academic courses are cross-listed with other University departments and colleges, allowing academic credit toward degree requirements.

Students in the Air Force ROTC program enroll in an aerospace studies (ASC) course each semester. ASC 205/PAF 275 and ASC 206/PAF 276 are taken

during the first year and ASC/HST 295 and ASC/HST 296 are taken during the sophomore year. These courses comprise the general military course and meet one hour a week.

During the junior year, students enroll in ASC 305/O&M 405 and ASC 306/O&M 406. During the senior year, they enroll in ASC 405/PAF 475 and ASC 406/PAF 476. These courses comprise the professional officer course, and each meets for three hours a week.

All academic courses are taught by career Air Force officers who hold at least a bachelor's degree. These officers are on the University faculty and hold the academic title of professor or assistant professor for the duration of their assignment.

Besides attending academic classes, cadets attend a leadership laboratory each week. The leadership laboratory provides instruction in Air Force customs and courtesies, drill and ceremonies, expeditionary skills, and briefings on career opportunities. The instruction is conducted by the cadet corps with a progression of experiences designed to develop leadership potential.

During the summer between the sophomore and junior years, cadets attend field training at Maxwell Air Force Base in Alabama. This training is four weeks long. Field training provides each cadet with leadership training, group involvement, physical fitness training, and a chance to experience life in an active Air Force environment.

Juniors in Air Force ROTC are eligible to apply for positions as cadet training assistants or to participate in professional development training programs around the country. Cadet training assistants attend a field training camp and train and evaluate cadet trainees and execute field training activities.

Army Reserve Officer Training Corps  
Lt. Col. Michael Bianchi  
Professor of Military Science  
308 Archbold North, 315-443-2462

Students in the Army ROTC program receive instruction in general military science in preparation for commissions as second lieutenants in the U.S. Army, Army Reserve, or Army National Guard. Officer education emphasizes such areas as the duties and responsibilities of junior officers; the understanding of the fundamental concepts and principles of military art and science; the development of leadership and management potential; a basic understanding of associated professional knowledge; a strong sense of personal integrity, honor, and individual responsibility; and an appreciation of the requirements for national security.

All students participate in a two to four-hour leadership laboratory each week. This period of instruction is largely student-planned and directed and provides opportunities for realistic leadership experience. It emphasizes leadership, basic military skills, and professional knowledge subjects.

In addition to the leadership laboratory, basic-course students (freshmen and sophomore students) receive instruction in physical conditioning, first aid, effective writing, and human behavior. The basic course does not obligate students to any military service and only requires two to three hours a week.

After successful completion of basic-course requirements, students can enroll in advanced ROTC, which requires five to eight hours a week.

In the junior year cadets prepare for advanced camp, which takes place at an active duty Army base, during the summer between the junior and senior year.

Students study military leadership and management, map reading, advanced physical conditioning, military ethics, professionalism, and law. These courses, if cross-listed with other academic courses, may be taken for academic credit.

Field training exercises are held once each semester. They introduce a wide range of military skills and stress practical application of classroom instruction. Skills in rappelling, land navigation, tactics, and marksmanship are taught at a variety of field sites in Central New York and Pennsylvania.

#### Aerospace Studies Courses

##### GENERAL MILITARY

ASC 101,102/201,202

ASC 205/PAF 275

ASC 206/PAF 276

ASC/HST 295

ASC/HST 296

##### PROFESSIONAL OFFICER

ASC 301,302/401,402

ASC 305/O&M 405

ASC 306/O&M 406

ASC 405/PAF 475

ASC 406/PAF 476

##### MILITARY SCIENCE COURSES

MSL 101,102/201,202

## Student SUccess Initiative (SSUI)

The Student SUccess Initiative (SSUI) program is committed to the retention of students. In partnership with SU's schools and colleges, SSUI provides a comprehensive learning community experience that includes personal coaching, quiet study areas, tutorials, and social activities. To qualify for the SSUI program, students must show some indication that they are academically "at risk" and are dedicated to making a change in their approach to academic and personal development. For more information, contact the SSUI office at 315-443-1095 or [ssui@syr.edu](mailto:ssui@syr.edu) or visit the [web site](#).

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## SU Abroad

Syracuse University Abroad  
106 Walnut Place  
Margaret Himley, Associate Provost for International Education and Engagement  
1-800-235-3472, [suabroad@syr.edu](mailto:suabroad@syr.edu), <http://suabroad.syr.edu>

Did you know that nearly 40 percent of Syracuse University students study in another country with SU Abroad? Consistently ranked as one of the nation's highest quality programs, SU Abroad offers a variety of options and signature features:

- Year-long, semester, summer, and short-term programs;
- Language at any level (beginner to advanced);
- Immersive homestay experiences;
- Assured guidance from staff and faculty abroad; and
- Once-in-a-lifetime internships and Signature Seminars.

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## Undergraduate Research

### Undergraduate Research Program

Kandice L. Salomone, Director  
323 Hall of Languages, 315-443-1643  
[ilearn.syr.edu](http://ilearn.syr.edu)

The Undergraduate Research Program (URP), housed in the College of Arts and Sciences but open to qualified participants from other colleges, exists to provide non-classroom, credit-bearing educational opportunities to undergraduate students. Interested qualified students work closely with Arts and Sciences faculty members in faculty-generated research projects, other projects representing the faculty member's academic interests, learning environments provided by professionals affiliated with the College of Arts and Sciences, or eligible off-campus internships with an identified Arts and Sciences advisor. The program features the apprenticeship model, and students gain firsthand experience in creative and investigative academic processes, translate theory into practice, explore the cutting edges of particular disciplines, develop closer working relationships with faculty members, and enhance their own career and educational credentials.

### FACULTY PARTICIPATION

The program offers Arts and Sciences faculty members a chance to extend and expand the character of their teaching in the undergraduate context, to work closely with self-selecting, highly motivated students, to attract excellent students to continued study in their particular field of study, and to open both internal and external funding possibilities by way of undergraduate involvement in their work. Faculty members are invited to propose projects to the Director. Individual projects may extend beyond a semester in length as appropriate. The character and requirements of these projects, as well as the number of credits involved, vary greatly, since they come from across the disciplines of the College of Arts and Sciences. The common criterion for all, however, is appropriateness to an educational credit-bearing experience for qualified undergraduate students.

# Guide To Reading Course Descriptions

## Course Numbering System

The present system of numbering courses prescribes that all courses use three digits to indicate the course level and/or type of course, and a three-letter subject to indicate the department or college.

The following catalog numbering guidelines indicate the level and type of course:

Remedial and noncredit courses	000-099
Freshman-level courses	100-199
Sophomore-level courses	200-299
Junior- and senior-level courses	300-499
Joint undergraduate- and graduate-level courses	500-599
First-year graduate-level courses	600-699
Second- and third-year graduate-level courses	700-899
Readings, research, and individual study courses at the doctoral level only	900-996
Master's thesis	997
Individualized study program	998
Doctoral dissertation	999

### INTERPRETATION

- The first, or left, digit of the course catalog number indicates level.
- The second, or middle, digit may or may not indicate the study area, depending upon the curriculum structure of the particular department.

#### Glossary of Course Subjects

Each course number is preceded by a three-letter subject that indicates the area of study. You can view a complete alphabetical list of subjects, together with the area for which each stands and the college or school in which the course is taught, by selecting the above link.

## Guide To Reading Descriptions

### EXAMPLE 1

CHE 477 Preparation and Analysis of Proteins and Nucleic Acids College of Arts & Sciences

Crosslisted with: BCM 477

Double Numbered with: CHE 677

3 Credits - Offered at least 1 time, fall or spring

Experimental methods for biologically synthesizing and chemically purifying macromolecules in order to analyze their structure and function, including: polymerase chain reaction; site-directed mutagenesis; Protein expression and purification; nucleic acid and protein electrophoresis. Additional work required of graduate students. PREREQ: CHE 474 or BIO 326 or BIO 575

CHE 477 — course subject = CHE (Chemistry) (see “Glossary of Course Subjects) and catalog number = 477.

Preparation and Analysis of Proteins and Nucleic Acids — course title.

College of Arts and Sciences — the school, college, or academic unit offering the course.

Crosslisted\* with: BCM 477— course is crosslisted with a course in Biochemistry, BCM 477.

\*Crosslist: Two or more different subjects, same or different course numbers, but with the same title and catalog description, e.g., CHE/BCM 477.

Crosslisting may occur within a school or college, or between schools/colleges.

Double Numbered\*\* with: CHE 677 — Course is also offered as CHE 677.

\*\*Double Number: Same subject, two different course numbers at the same or different levels, usually undergraduate and graduate, e.g., CHE 477/677.

3 Credits — number of academic credits the course carries. Variable credit courses show a range of credits, e.g. 1-3 credits.

Offered at least 1x fall or spring — Indicates frequency of offering. Courses may be offered every semester, at least once a year, only in academic years ending in an odd year (2012-2013) or in an even year (2013-2014); during a summer session, irregularly, or based on sufficient student interest.

Experimental methods for biologically synthesizing and chemically purifying macromolecules in order to analyze their structure and function, including: polymerase chain reaction; site-directed mutagenesis; Protein expression and purification; nucleic acid and protein electrophoresis. Additional work required of graduate students. — Course description

PREREQ: CHE 474 or BIO 326 or BIO 575 — A prerequisite (PREREQ) is a course or condition that must be successfully completed or met before enrollment is possible in the course described. A course may also have a corequisite (COREQ), which requires concurrent enrollment.

### Example 2 – Courses that can be repeated for credit

SED 340 Participation in the Professional Development School School of Education  
Double Numbered with: SED 640  
0-1 Credits - Offered each semester

Individual involvement in research, discussion and decision making with teachers, university faculty, and colleagues who are members of the Professional Development School Cadres and Academies.  
Repeatable 5 time(s), 2 credits maximum

In this example, "repeatable 5 time(s), 2 credits maximum" appears at the end of the description. This means the course may be taken and counted more than once toward fulfillment of degree requirements. In the example, SED 340 can be repeated up to 5 times, but only for a maximum of 2 credits earned.

## Descriptions Of All-University Courses

All-University courses allow students considerable flexibility in developing individual academic programs. Students enrolled in any school or college within the University may enroll in these courses. Some, but not all, all-University courses are displayed under individual school and college course listings in this catalog. Whether listed or not, the descriptions are standard in every program and are provided below.

Experience credit and independent study courses may be elected for one to six credits, depending on individual arrangements with the participating faculty member. In selected topics courses, students may earn one to three credits. Students are advised to check carefully with their faculty advisors and the dean of their school or college before registering for an all-University course to be sure that the course will be accepted toward the completion of their degree requirements.

- **SELECTED TOPICS (TITLE MAY VARY)**  
(Subject) (Catalog Number) Selected Topics 1-6 credits  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.
- **EXPERIENCE CREDIT**  
(Subject) (Catalog Number) Experience Credit 1-6 credits  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. The student must get permission, in advance, of assigned instructor, department chair, or dean.
- **INTERNATIONAL COURSE**  
(Subject) (Catalog Number) (Title and Name of Institution) 1-12 credits  
Offered through Syracuse University Abroad (SU Abroad) by an educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SU Abroad works with SU's academic department to assign the appropriate course level, title, and grade for the student's transcript.
- **INDEPENDENT STUDY**  
(Subject) (Catalog Number) Independent Study 1-6 credits  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. May be repeated for credit.
- **HONORS THESIS**  
(Subject) 499 Honors Thesis 3-6 credits  
The "499" number is used as needed by all departments in the University. Students sign up for Honors Thesis the same way they do for the other

all-University courses - by filling out a form at registration each time they register for the course.

Course Numbering for All-University Courses

	Lower-division	Upper-division	1 <sup>st</sup> year graduate	Advanced graduate
Selected topics	100, 200	300, 400, 500	600	900
Experience credit	170, 270	370, 470, 570	670	970
International	180, 280	380, 480, 580	680	980
Independent study	190, 290	390, 490, 590	690	990
Honors thesis		499		

## Course Subjects

AAA Asian/Asian American Studies (The College of Arts and Sciences)  
AAS African American Studies (The College of Arts and Sciences)  
ACC Accounting (The Martin J. Whitman School of Management)  
ACT Applied Computer Technologies (University College)  
ADD Advertising Design (School of Art and Design)  
ADF Art & Drama of Film (Drama)  
ADV Advertising (S.I. Newhouse School of Public Communications)  
AED Art Education (School of Education)  
AEE Aerospace Engineering (College of Engineering and Computer Science)  
AJP Arts Journalism (S.I. Newhouse School of Public Communications)  
ALP Arts Leadership Administration (The College of Arts and Sciences)  
AMC Applied Music (Setnor School of Music)  
AMH Amharic (The College of Arts and Sciences)  
AMP Art Media Program (School of Art and Design)  
AMS American Studies (The College of Arts and Sciences)  
ANT Anthropology (The College of Arts and Sciences)  
APH Art Photography (School of Art and Design)  
ARA Arabic (The College of Arts and Sciences)  
ARB Arabic (The College of Arts and Sciences)  
ARC Architecture (School of Architecture)  
ARD Urban Design (School of Architecture)  
ART Art (School of Art and Design)  
ASL American Sign Language (School of Education)  
AST Astronomy (The College of Arts and Sciences)  
ATE Adult Education (School of Education)  
BCM Biochemistry (The College of Arts and Sciences)  
BDJ Broadcast and Digital Journalism (S.I. Newhouse School of Public Communications)  
BED Business Education (The Martin J. Whitman School of Management)  
BEN Bioengineering (College of Engineering and Computer Science)  
BFA Basic Art (Freshmen) (School of Art and Design)  
BGR Bulgarian (The College of Arts and Sciences)  
BIB Bible Studies (The College of Arts and Sciences)  
BIO Biology (The College of Arts and Sciences)  
BNG Bengali (The College of Arts and Sciences)  
BPS Bachelor of Professional Studies (University College)  
BRI Brass Instruments (Setnor School of Music)  
BRY Biochemistry (The College of Arts and Sciences)  
BSN Bassoon (Setnor School of Music)  
BTB Tuba (Setnor School of Music)  
BUA Business Administration (The Martin J. Whitman School of Management)  
BUE Business Economics (The Martin J. Whitman School of Management)  
CAR Computer Art (School of Art and Design)  
CAS College of Arts and Sciences (The College of Arts and Sciences)  
CCR Composition and Cultural Rhetoric (The College of Arts and Sciences)  
CEN Chemical Engineering (College of Engineering and Computer Science)  
CER Ceramics (School of Art and Design)  
CFE Cultural Foundations of Education (School of Education)  
CFS Child and Family Studies (Child and Family Studies)  
CGR Computer Graphics (School of Art and Design)

CGS Cognitive Science (The College of Arts and Sciences)

CHE Chemistry (The College of Arts and Sciences)

CHI Chinese (The College of Arts and Sciences)

CHN World Language Prog: Chinese (The College of Arts and Sciences)

CHP College Honors Program (The College of Arts and Sciences)

CIE Civil Engineering (College of Engineering and Computer Science)

CIS Computer and Information Science (College of Engineering and Computer Science)

CLA Classics (The College of Arts and Sciences)

CLB Collaborative Laboratory (College of Visual and Performing Arts)

CLR Clarinet (Setnor School of Music)

CLS College Learning Strategies (School of Education)

CLT Comparative Literature (The College of Arts and Sciences)

CMD Communication Design (School of Art and Design)

COG Cognitive Science (The College of Arts and Sciences)

COM Communications (S.I. Newhouse School of Public Communications)

CON Consumer Studies (College of Visual and Performing Arts)

COU Counseling (School of Education)

CPS Computational Science (College of Engineering and Computer Science)

CRL Creative Leadership (University College)

CRS Communication and Rhetorical Studies (Communication and Rhetorical Studies)

CSD Communication Sciences and Disorders (The College of Arts and Sciences)

CSE Computer Engineering (College of Engineering and Computer Science)

CTG Conducting (Setnor School of Music)

CZE Czechoslovakian (The College of Arts and Sciences)

DAN World Language Program: Danish (The College of Arts and Sciences)

DBS Double Bass (Setnor School of Music)

DES Design (School of Art and Design)

DFH Documentary Film and History (S.I. Newhouse School of Public Communications)

DRA Drama (Drama)

DRD Design/Technical Theater (Drama)

DRM Drama Management (Drama)

DRS Drumset (Setnor School of Music)

DRW Drawing (School of Art and Design)

DSP Disability Studies (School of Education)

DTC World Language Program: Dutch (The College of Arts and Sciences)

DTS Dance Technique Studies (School of Education)

DUT Dutch (The College of Arts and Sciences)

EAR Earth Sciences (The College of Arts and Sciences)

ECE Electrl & Computer Engr (College of Engineering and Computer Science)

ECN Economics (The College of Arts and Sciences)

ECO Economics (The College of Arts and Sciences)

ECS Engineering and Computer Science (College of Engineering and Computer Science)

EDA Education Leadership (School of Education)

EDI Environmental Design (School of Art and Design)

EDP Counselor Education (School of Education)

EDU Education (General) (School of Education)

EED Elementary Education (School of Education)

EEE Entrepreneurship and Emerging Enterprises (The Martin J. Whitman School of Management)

EGR Engineering (College of Engineering and Computer Science)

ELE Electrical Engineering (College of Engineering and Computer Science)

ELL English Language Learners (School of Education)

EMB Executive Organization and Management M.B.A. Program (University College)

ENA Environmental Arts (College of Visual and Performing Arts)

ENC Ensemble (Chamber Music) (Setnor School of Music)

ENG English (The College of Arts and Sciences)

ENI Ensemble (Instrumental) (Setnor School of Music)

ENL English as a Second Language (The College of Arts and Sciences)

ENM Engineering Management (College of Engineering and Computer Science)

ENO Freshmen Orientation (The College of Arts and Sciences)

ENP Engineering Physics (College of Engineering and Computer Science)

ENV Ensemble (Vocal) (Setnor School of Music)

ESP Environmental/Science Policy (The College of Arts and Sciences)

ETS English and Textual Studies (The College of Arts and Sciences)

EUP Euphonium (Setnor School of Music)

EXS Experimental Studios (School of Art and Design)

FAS Fashion Design (School of Art and Design)

FCS Family and Community Services (Child and Family Studies)

FEC Family Economics (David B. Falk College of Sport and Human Dynamics)

FEM Family Equipment & Management (David B. Falk College of Sport and Human Dynamics)

FHN French Horn (Setnor School of Music)

FIA Fine Arts (The College of Arts and Sciences)

FIB Fiber Arts (School of Art and Design)

FIL Film (School of Art and Design)

FIN Finance (The Martin J. Whitman School of Management)

FLL Foreign Languages and Literatures (The College of Arts and Sciences)

FLM Film (S.I. Newhouse School of Public Communications)

FLT Flute (Setnor School of Music)

FND Foundation (School of Art and Design)

FRC FRC (David B. Falk College of Sport and Human Dynamics)

FRE French and Francophone Studies (The College of Arts and Sciences)

FSC Forensic Science (The College of Arts and Sciences)

FSH Fashion Illustration (School of Art and Design)

FSM Food Service Management (David B. Falk College of Sport and Human Dynamics)

FST Food Studies (David B. Falk College of Sport and Human Dynamics)

GED General Education (The College of Arts and Sciences)

GEO Geography (The College of Arts and Sciences)

GER German (The College of Arts and Sciences)

GET Global Enterprise Technology (School of Information Studies)

GFO General Forestry (University College)

GOL Earth Science (The College of Arts and Sciences)

GRA Graphic Design (S.I. Newhouse School of Public Communications)

GRE Greek (The College of Arts and Sciences)

GRK World Language Program: Greek (The College of Arts and Sciences)

GTR Guitar (Setnor School of Music)

HAU World Language Program: Hausa (The College of Arts and Sciences)

HBR World Language Program: Hebrew (The College of Arts and Sciences)

HEA Health and Physical Education (School of Education)

HEB Hebrew (The College of Arts and Sciences)

HED Higher Education (School of Education)

HEE Home Economics Education (David B. Falk College of Sport and Human Dynamics)

HEM Housing Equip & Mgmt (David B. Falk College of Sport and Human Dynamics)

HGP Humanities Doctoral Program (The College of Arts and Sciences)

HIN Hindi (The College of Arts and Sciences)

HIP Housing & Interior Planning (David B. Falk College of Sport and Human Dynamics)

HIS History (The College of Arts and Sciences)

HNG World Language Prog: Hungarian (The College of Arts and Sciences)

HNR Honors Program (The College of Arts and Sciences)

HOA History of Art (The College of Arts and Sciences)

HOM History of Music (The College of Arts and Sciences)

HPD Harpsichord (Setnor School of Music)

HPM Hospitality Management (David B. Falk College of Sport and Human Dynamics)

HRM Human Resource Management (The Martin J. Whitman School of Management)

HRP Harp (Setnor School of Music)

HSH Human Services and Health Professions (David B. Falk College of Sport and Human Dynamics)

HST History (The College of Arts and Sciences)

HTW Health and Wellness (Public Health, Food Studies and Nutrition )

HUD Human Development (David B. Falk College of Sport and Human Dynamics)

HUM Humanities (The College of Arts and Sciences)

HUN Human Nutrition (David B. Falk College of Sport and Human Dynamics)

ICC Interactive Communications Core (S.I. Newhouse School of Public Communications)

IDE Instructional Design, Development, and Evaluation (School of Education)

IDN World Lang Prog: Indonesian (The College of Arts and Sciences)

IDP Interdisciplinary Programs (The College of Arts and Sciences)

IDS Information Technology, Design and Startup (School of Information Studies)

ILL Illustration (School of Art and Design)

INB International Business (The Martin J. Whitman School of Management)

IND Industrial Design (School of Art and Design)

INE Industrial Engineering (College of Engineering and Computer Science)

INS Insurance (The Martin J. Whitman School of Management)

INT Intermedia (S.I. Newhouse School of Public Communications)

IOR Industrial Engineering and Operations Research (College of Engineering and Computer Science)

IPD Home Furnishings (David B. Falk College of Sport and Human Dynamics)

IRG World Lang Prog: Irish-Gaelic (The College of Arts and Sciences)

IRP International Relations (The College of Arts and Sciences)

ISA Independent Study Degree Program (The College of Arts and Sciences)

ISD Interior Design (School of Art and Design)

ISE Industrial Systems Engineering (College of Engineering and Computer Science)

ISH Independent Study Degree Program (David B. Falk College of Sport and Human Dynamics)

ISM Independent Study Degree Program (The Martin J. Whitman School of Management)

ISP Independent Study Degree Program (University College)

IST Information Studies (School of Information Studies)

ISX Independent Study Degree Program (Maxwell School of Citizenship and Public Affairs)

ITA Italian (The College of Arts and Sciences)

ITE Instructional Technology (School of Education)

JAM Jewelry and Metalsmithing (School of Art and Design)

JAP Japanese (The College of Arts and Sciences)

JNL Journalism (S.I. Newhouse School of Public Communications)

JPN World Language Prog: Japanese (The College of Arts and Sciences)

JPS Japanese (The College of Arts and Sciences)

JSP Judaic Studies Program (The College of Arts and Sciences)

KBI Keyboard Instruments (Setnor School of Music)

KNM Knowledge Management (University College)

KOR World Language Prog: Korean (The College of Arts and Sciences)

LAN Self-Instructional Language (The College of Arts and Sciences)

LAS Latino-Latin American Studies (The College of Arts and Sciences)

LAT Latin (The College of Arts and Sciences)

LAW Law (College of Law)

LGL Legal Studies (University College)

LIN Linguistics (The College of Arts and Sciences)

LIT Literature in English Translation (The College of Arts and Sciences)

LLA Law in the Liberal Arts (The College of Arts and Sciences)

LLM Master of Laws (College of Law)

LPP Law and Public Policy (The Martin J. Whitman School of Management)

M&E Media & Education (School of Education)

MAE Mechanical and Aerospace Engineering (College of Engineering and Computer Science)

MAG Magazine (S.I. Newhouse School of Public Communications)

MAR Marketing Management (The Martin J. Whitman School of Management)

MAS Managerial Statistics (The Martin J. Whitman School of Management)

MAT Mathematics (The College of Arts and Sciences)

MAX Maxwell (The College of Arts and Sciences)

MBC Master of Business Core (The Martin J. Whitman School of Management)

MDE Mathematics Education (School of Education)

MDS Management Data Systems (The Martin J. Whitman School of Management)

MEE Mechanical Engineering (College of Engineering and Computer Science)

MES Middle Eastern Studies (The College of Arts and Sciences)

MET Metalsmithing (School of Art and Design)

MFE Manufacturing Engineering (College of Engineering and Computer Science)

MFT Marriage and Family Therapy (Marriage and Family Therapy)

MGT School of Management (The Martin J. Whitman School of Management)

MHL Music History and Literature (Setnor School of Music)

MIC Microbiology (The College of Arts and Sciences)

MIS Management Information Systems (The Martin J. Whitman School of Management)

MNO Magazine, Newspaper, and Online Journalism (S.I. Newhouse School of Public Communications)

MOT Management of Technology (The Martin J. Whitman School of Management)

MPD Multimedia Photography and Design (S.I. Newhouse School of Public Communications)

MPH Master of Public Health (Maxwell School of Citizenship and Public Affairs)

MPS Metropolitan Studies (The College of Arts and Sciences)

MSL Military Science (The Martin J. Whitman School of Management)

MTA Music Theory Analysis (Setnor School of Music)

MTC Music Theory (Setnor School of Music)

MTD Mathematics Education (School of Education)

MTE Metallurgy (College of Engineering and Computer Science)

MTP Music Theory Performance (Setnor School of Music)

MTS Materials Science (College of Engineering and Computer Science)

MTW Music Theory Writing (Setnor School of Music)

MUE Music Education (Setnor School of Music)

MUH Music History (Setnor School of Music)

MUI Music Industry (Setnor School of Music)

MUL Music Literature (Setnor School of Music)

MUS Museum Studies (School of Art and Design)

NAS Nondepartmental Arts and Sciences (The College of Arts and Sciences)

NAT Native American Studies (The College of Arts and Sciences)

NEU Neuroscience (The College of Arts and Sciences)  
 NEW Newspaper and Online Journalism (S.I. Newhouse School of Public Communications)  
 NOR World Language Prog: Norwegian (The College of Arts and Sciences)  
 NPR NPR (S.I. Newhouse School of Public Communications)  
 NSD Nutrition Science and Dietetics (David B. Falk College of Sport and Human Dynamics)  
 NUC Nuclear Energy Track (College of Engineering and Computer Science)  
 O&M Organization and Management (The Martin J. Whitman School of Management)  
 OBO Oboe (Setnor School of Music)  
 OCD Organizational Change and Development (The Martin J. Whitman School of Management)  
 OGL Organizational Leadership (University College)  
 OPM Operations Management (The Martin J. Whitman School of Management)  
 ORG Organ (Setnor School of Music)  
 PAF Public Affairs and Citizenship (The College of Arts and Sciences)  
 PAI Public Admin & Internatl Affrs (Maxwell School of Citizenship and Public Affairs)  
 PDG Pedagogy of Theory (Setnor School of Music)  
 PED Physical Education (School of Education)  
 PER Performance Recital (Setnor School of Music)  
 PHI Philosophy (The College of Arts and Sciences)  
 PHO Photography (S.I. Newhouse School of Public Communications)  
 PHY Physics (The College of Arts and Sciences)  
 PIR Personnel Relations (The Martin J. Whitman School of Management)  
 PLA Planning Prgm(Grad) (The College of Arts and Sciences)  
 PNO Piano (Setnor School of Music)  
 POL Polish (The College of Arts and Sciences)  
 POR Portuguese (The College of Arts and Sciences)  
 PPA Public Administration (The College of Arts and Sciences)  
 PPE Professional Physical Education (School of Education)  
 PRC Percussion (Setnor School of Music)  
 PRL Public Relations (S.I. Newhouse School of Public Communications)  
 PRS Persian (The College of Arts and Sciences)  
 PRT Printmaking (School of Art and Design)  
 PSC Political Science (The College of Arts and Sciences)  
 PSY Psychology (The College of Arts and Sciences)  
 PTG Painting (School of Art and Design)  
 PTS Technology and Society (College of Engineering and Computer Science)  
 QSX Queer Sexuality (The College of Arts and Sciences)  
 QUM Quantitative Methods (The Martin J. Whitman School of Management)  
 RAE Recording and Allied Entertainment (Setnor School of Music)  
 RCE Rehabilitation Counselor Education (School of Education)  
 RCS Retailing and Consumer Studies (College of Visual and Performing Arts)  
 RDR Recorder (Setnor School of Music)  
 REC Recreation (School of Education)  
 RED Reading and Language Arts (School of Education)  
 REL Religion (The College of Arts and Sciences)  
 RES Real Estate (The Martin J. Whitman School of Management)  
 RET Retailing (College of Visual and Performing Arts)  
 RMT Retail Management (The Martin J. Whitman School of Management)  
 ROL Romance Languages and Literatures (The College of Arts and Sciences)  
 RTN Radio/Television News (S.I. Newhouse School of Public Communications)  
 RUS Russian (The College of Arts and Sciences)  
 SAN Sanskrit (The College of Arts and Sciences)

SAS South Asian Studies (The College of Arts and Sciences)

SCE Science Education (School of Education)

SCI Science Teaching (The College of Arts and Sciences)

SCM Supply Chain Management (The Martin J. Whitman School of Management)

SCU Sculpture (School of Art and Design)

SED Secondary Education (School of Education)

SES Sensory Research (College of Engineering and Computer Science)

SHE Speech Education (College of Visual and Performing Arts)

SHR Strategy and human Resources (The Martin J. Whitman School of Management)

SIS Systems & Information Science (School of Information Studies)

SLA Slavic (The College of Arts and Sciences)

SNH World Language Prog: Sinhalese (The College of Arts and Sciences)

SOC Sociology (The College of Arts and Sciences)

SOL Soling Program (The College of Arts and Sciences)

SOM School of Management (The Martin J. Whitman School of Management)

SOS Social Science (The College of Arts and Sciences)

SPA Spanish (The College of Arts and Sciences)

SPC Speech Communication (Communication and Rhetorical Studies)

SPD Surface Pattern Design (School of Art and Design)

SPE Special Education (School of Education)

SPM Sport Management (Sport Management)

SPP Audio & Speech Path (School of Education)

SRC Serbo-Croatian (The College of Arts and Sciences)

SST Solid-State Science and Technology (College of Engineering and Computer Science)

STA Studio Arts (School of Art and Design)

STI String Instruments (Setnor School of Music)

STR Studio Research (School of Art and Design)

STS Science, Technology, and Society (The College of Arts and Sciences)

STT Applied Statistics (The College of Arts and Sciences)

SWA Kiswahili (The College of Arts and Sciences)

SWE World Language Prog: Swedish (The College of Arts and Sciences)

SWK Social Work (School of Social Work)

SXP Saxophone (Setnor School of Music)

SYE Synaesthetic Education (School of Education)

TCM Telecommunications (S.I. Newhouse School of Public Communications)

TDM Transportation and Distribution (The Martin J. Whitman School of Management)

TEA Textile Arts (School of Art and Design)

TEL Telecommunications (College of Engineering and Computer Science)

TGL World Language Prog: Tagalog (The College of Arts and Sciences)

TML Tamil (The College of Arts and Sciences)

TRB Trombone (Setnor School of Music)

TRF Television, Radio, and Film (S.I. Newhouse School of Public Communications)

TRK Turkish (The College of Arts and Sciences)

TRM Transmedia (School of Art and Design)

TRP Trumpet (Setnor School of Music)

TUR World Language Prog: Turkish (The College of Arts and Sciences)

TVR TV/Radio (S.I. Newhouse School of Public Communications)

TXT Textiles (College of Visual and Performing Arts)

UCS University Coll Ceramics (School of Art and Design)

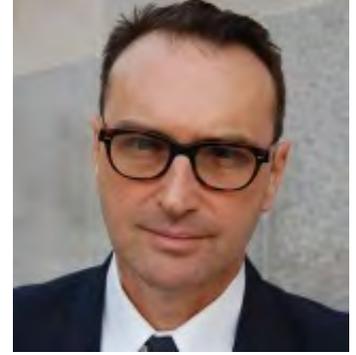
UFA University Coll Fiber Art (School of Art and Design)

UFD University Coll Foundation (School of Art and Design)  
UKR Ukrainian (The College of Arts and Sciences)  
UPG University Coll Painting (School of Art and Design)  
  
UPT Univ Coll Printmaking (School of Art and Design)  
URD World Language Program: Urdu (The College of Arts and Sciences)  
URP Undergraduate Research Program (The College of Arts and Sciences)  
VCO Violoncello (Setnor School of Music)  
VIC Visual Communications (School of Art and Design)  
VID Art Video (School of Art and Design)  
VIE World Lang Prog: Vietnamese (The College of Arts and Sciences)  
VLA Viola (Setnor School of Music)  
VLN Violin (Setnor School of Music)  
VOC Voice (Setnor School of Music)  
VPA VPA (College of Visual and Performing Arts)  
WGS Women's and Gender Studies (The College of Arts and Sciences)  
WLP World Language Program (The College of Arts and Sciences)  
WRT Writing Program (The College of Arts and Sciences)  
WSP Women's and Gender Studies Program (The College of Arts and Sciences)  
WWI Woodwind Instruments (Setnor School of Music)

# School Of Architecture

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Michael Speaks, Dean  
201 Slocum Hall  
soa.syr.edu



## About The College

### Dean's Message

The Syracuse University School of Architecture consistently ranks among the best schools of architecture in the nation. The reasons most often cited are our committed and diverse faculty, our number and variety of study abroad opportunities, and our nationally-accredited, professional degree programs, which provide students the technical skill and the cultural knowledge necessary to practice in an increasingly competitive global marketplace.

Consistent with our commitment to prepare students for a world shaped by globalization, the Syracuse School of Architecture has created the Global Studio program with facilities and full time faculty in Florence, London and New York. Students may spend up to two semesters studying full time in each of these programs. In addition, we offer a range of other study abroad options with shorter programs of study in Turkey, Japan, China and India. We are also committed to bringing world-class practitioners and educators to teach and lecture at our home campus in Syracuse. Each semester we organize a visiting lecture series featuring architects and designers from around the world. And, each semester, as part of our Visiting Critic Program, nationally and internationally recognized professors lead studios on our Syracuse campus.

The School of Architecture is equally committed to local and regional engagement projects, and over the last several years we have worked in conjunction with the University and the city of Syracuse to develop numerous projects in the city and in the region. Many of these projects have been organized by Upstate, an interdisciplinary design, research and real estate program located in downtown Syracuse, started and run by the Syracuse University School of Architecture.

Shaped by globalization and rapid technological transformation, the practice of architecture, over the last decade, has undergone dramatic change, placing the architect, once again, at the center of some of the most defining issues of our time. The School of Architecture at Syracuse University has not only kept pace with these changes, but our faculty, staff, students and alumni have led and continue to lead the effort to make a better world through the design of better buildings and cities. We invite you to visit and to join us.

Michael Speaks, Ph.D.  
Dean, School of Architecture

## Educational Mission

### Program Mission

As a professional-degree-granting college within a research university, the School of Architecture at Syracuse University is dedicated to creating a rich academic environment marked by the confluence of advanced practice, contemporary theory, and social engagement. Our primary goal is to help students develop the capacity and judgment necessary to understand the built environment and generate architecture as a critical response, so that each student can engage both the discipline of architecture and the multiple discourses—artistic, technological, social, political, environmental, economic—necessary to be a successful practitioner and a conscientious citizen. Through our teaching and public programming, we help students gain a deep knowledge of architecture's techniques, traditions, methods of inquiry, and modes of production, so that they emerge with the intellectual breadth and acuity to meet the challenges of a rapidly changing world that demands agility and innovation. Through both programming and outreach activities, we aim to engage a wider public audience in a dialogue about the role of architecture in society.

To serve this mission we are committed to the following principal objectives:

- Recruiting, enrolling, and retaining the most qualified students.
- Recruiting, employing, and retaining the most qualified faculty and staff.
- Creating and sustaining a supportive academic environment marked by academic integrity, cultural diversity, and social responsibility.
- Providing the best professional education possible by offering professional degree programs that combine expertise specific to the

discipline of architecture with critical thinking skills and intellectual knowledge central to humanistic study.

- Teaching an integrated curriculum within which courses in design and other specializations support the proposition, exploration, and development of architectural ideas.
- Maintaining and enhancing our expertise and capabilities in significant areas of research and practice.
- Providing opportunities for students to participate in international study programs to better understand the global forces and local cultural contexts that contribute to the production of architecture and urban design in these settings.
- Offering visiting critic studios both on and off campus that provide students with an exposure to alternative perspectives and advanced building practices.
- Demonstrating overall competency through a self-directed process of research, documentation, proposition, and project development within the capstone experience of thesis.
- Increasing student awareness of and ability to engage with major issues such as social equity, economic development, and ecological balance.
- Encouraging faculty and students to participate in interdisciplinary initiatives offered within a diverse and rich campus setting.
- Preparing graduates to enter the profession in a variety of ways, with strong basic design skills coupled with the technical ability, business acumen and an understanding of the ethical role of the architect in society.
- Supporting faculty achievement in creative activity and scholarly research.
- Generating advocacy and support for School initiatives from alumni, faculty, staff, and advisory board members, and among civic and business leaders.

#### Syracuse Architecture Studio Culture Policy

The primary goals of the School of Architecture at Syracuse University are to promote research into architecture and to educate students for professional practice and other forms of architectural engagement. Faculty instructors challenge students to develop the capacity for understanding the built environment and generating architectural design proposals as a critical response. They assist students in cultivating manifold design capabilities linked to critical intelligence about the discipline and supported by state-of-the-field expertise in representation, technology, structures, theory and history.

A central component of this mission is the cultivation of a learning environment that supports students in the fullest development of their capacities as designers, scholars, professionals, and citizens. To this end, students, faculty and staff are dedicated to the task of working together to foster five fundamental values:

- mutual respect among all members of the School;
- optimism about the potential for student learning, creativity and contribution;
- collaboration among students, faculty, staff and the broader public in pursuing advances in learning, knowledge, and practice;
- critical engagement with the discipline, the profession and the world; and
- continual innovation in teaching, learning, and research.

These values inform all of our activities. In the context of classrooms, studios, and other learning environments, they translate into these guidelines:

- The School encourages students and faculty alike to embrace the design studio and the classroom as places of intellectual and

creative exploration and collaboration. The frequently open-ended pursuit of knowledge through design and other forms of learning requires generosity of spirit on all parts, including the recognition that faculty members bring a high level of expertise to their teaching and that students bring a diversity of valuable prior knowledge to their learning. It also requires clear communication, rigorous testing of ideas, and a commitment to excellence on the part of all participants.

- The School encourages collaboration among students in their academic work and in extracurricular activities, as well as among students, faculty and staff in continually advancing knowledge and improving the ways we work together. It also promotes a culture of engagement in which students develop intellectually, technically and ethically through interaction with problems, opportunities and people not only within the field of architecture but also beyond it.
- The School values social, intellectual and disciplinary diversity in its staff, faculty and student population, as well as in its curriculum. In its teaching, research and daily activities, it strives to support and promote each of these kinds of diversity.
- The School recognizes that balance is a crucial element in the pursuit of excellence, and it encourages faculty to guide students in developing the capacity to reconcile what often seem to be competing imperatives in their work and in their lives. This includes managing expectations so as to minimize conflicts among courses, helping students to manage their time effectively, and promoting an appropriate balance between academic work and the other essentials of life.
- The School expects students to uphold the principles of academic integrity in their work and ethical conduct in their daily lives. Honesty, trustworthiness and fairness are essential attributes for conduct in class, within the university community, and in academic activities beyond Syracuse. These principles should guide behavior not only in the completion of course assignments, but also in treatment of buildings and equipment; interaction with university staff, systems and procedures; and behavior in the studio and elsewhere.

## Accreditation

The School of Architecture B.Arch and M.Arch I programs are fully-accredited by the National Architectural Accreditation Board (NAAB).

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accreditation Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

For further information about NAAB accreditation, visit the NAAB website.

## Undergraduate Education

Chair     Timothy Stenson, 201 Slocum Hall

Contact     School of Architecture, (315) 443-8242

The Syracuse University School of Architecture offers one of the most distinguished undergraduate programs in the nation leading to a professional bachelor of architecture degree. Founded in 1873, the school provides a comprehensive and intellectually challenging approach to the design of the built environment. It is a course of study that recognizes the mix of art and technology, and responds to the changing demands of the profession and society.

The design studio sequence is at the core of the five-year undergraduate program and is unique to architectural education. It is here that students begin to understand the fundamentals of design, working alongside their classmates. Instruction takes place at the desk through

extensive one-on-one communication with dedicated professors, and in formal and more casual reviews of work. In addition to studio and class work the school hosts a renowned lecture series, as well as symposia and exhibitions by leading architects, critics, and scholars, many of whom also participate in studio reviews held throughout the semester.

Our faculty members are recognized for their level of commitment to each student's progress and represent a broad range of the profession, from practicing architects, architectural historians, and theorists to professional artists and engineers.

Upper-level students have the option of study in New York City and abroad through programs in Florence, Italy; and London, England. They also have the opportunity to select a visiting critic studio led by notable architects from across the nation and abroad. These design studios explore advanced architectural issues, computer applications, and fabrication techniques.

Prospective students may apply to the school for fall admission. All applicants must submit a portfolio of creative work. We strongly recommend all applicants to visit the school and complete an interview and in-person portfolio review with a faculty member.

Students from other schools of architecture may apply for fall admission to the first or second years of the B.Arch. program. In most cases transfer students begin the studio sequence in the first year (ARC 107) unless advanced standing has been approved. Transfer credit evaluations are completed after a student is admitted into the B.Arch program.

Syracuse University students interested in intra-University transfer to the School of Architecture must have a minimum 3.0 grade point average, prepare and submit a portfolio of creative work, and participate in a personal interview. No mid-year transfers are accepted.

Students not enrolled in the B.Arch. program may minor in Architecture. The minor in architecture is described in the Academic Offerings section of the School of Architecture course catalog. For information on the major or minor in the history of architecture, please see the College of Arts and Sciences.

For further information about our undergraduate program, please visit our website.

## Global Campus Programs

### The Programs

Syracuse Architecture offers opportunities for advanced-level architecture students to spend a semester or a summer studying in one of our global campus centers – New York City, Florence, or London. Undergraduate students typically study away in the spring semester of their third year and/or the fall semester of their fourth year of the B.Arch program. Virtually 100% of students study away for a single semester, but opportunity exists to enroll for two consecutive semesters as well - 50% of our students choose to study away for a full year. Our programs are also open to non-SU students who study architecture and are currently enrolled in an accredited architecture program. Special scholarship opportunities exist to aid students in taking advantage of study away programs.

### Florence

As part of the Florence Architecture Program, established in 1980, students engage the traditional European city and gain an international perspective on design and theory. Annual symposia attract European architects and international critics who are in the forefront of the profession, and there are extensive field trips to sites of architectural significance such as Venice, Milan, Rome, Lucca, Bologna, and Pisa. The Florence Center includes five separate structures that house classrooms, lecture halls, a library, computer clusters, language center, and gardens. The recently renovated architectural studios are housed in 19th-century artist studios on Piazza Donatello, just a 15-minute walk from the historic center of Florence.

### London

The London program is based at the Syracuse University London Center in central London, near Covent Garden and the British Museum. The program is structured around a design studio and includes history courses and a field studies seminar exploring the historic and contemporary architecture of London, with excursions to other cities in the UK. Students may also select from the wide range of non-professional courses available to satisfy elective requirements. The program is staffed by London-based faculty and includes guest lecturers and visiting critics drawn from the extensive London architecture community.

### New York City

The University's new Fisher Center is based at 136 Madison Avenue in Midtown Manhattan. The New York City program offers opportunity to study in one of the most architecturally rich and culturally vibrant cities in the world. The curriculum focuses on the city's history, urban morphology, planning, real estate development, as well as urban theory. The program draws on Syracuse Architecture faculty and NYC-based critics, combined with guest lecturers, collateral programming, and extensive field studies in and around the city.

### Short-term/summer global programs

In addition to the regular semester offerings, summer and other 2-5 week study away opportunities, including summer studies abroad, are easy and attractive options that play an integral part of the undergraduate curriculum. Previous programs have taken students to India, France, Turkey, Greece, Germany, Russia, Spain, Austria, China, South America and Japan.

### Questions

For further information about our global campus programs and how to apply, contact the Syracuse Architecture Associate Dean's office at (315) 443-3324 or visit our website.

## Facilities, Research, Institutes

### Slocum Hall

Slocum Hall, the School of Architecture's campus home, offers an ideal environment for teaching, research, production, and exhibition. Constructed in 1918 and listed on the National Register of Historical Places, the five-story building underwent a dramatic redesign from 2006-2008 to enhance and restore original qualities while updating it technologically, functionally, and aesthetically. Slocum Hall now includes a vast open central atrium space, an auditorium as well as expanded studio, research, and office space.

The building's openness provides a cohesive setting that generates activity and communication between students, faculty, and visitors, supported by interconnecting vertical spaces or atria within the building. The central atrium and additional openings in the bearing wall allow pathways for natural light and ventilation. Facilities are closely integrated with the school's pedagogical priorities. Public review spaces, an exhibition gallery, the architecture reading room, faculty offices, and the café are located along the perimeter of these atria in order to encourage collaboration and exchange.

### Computing and Fabrication

The School of Architecture has two computer clusters. Equipment includes 60 Dell PCs connected to their own network and servers. State of the art software is available for a wide range of applications: 2D and 3D drafting; modeling, visualization, rendering and animation; image manipulation; desktop publishing; web page generation; video production; and GIS mapping. An output room provides an assortment of plotters, printers, and scanners. Digital fabrication equipment includes multiple 3D printers, laser cutters, CNC mill and vacuum former. Required and elective courses range from introduction to the 3D computing environment to digital animation and digital production.

The fully equipped model shop is staffed by a full-time professional instructor and includes such woodworking equipment as saws, drills, planers, routers, sanders, a lathe, and various hand tools. There is also a ventilated spray booth for painting and finishing.

### Reading Room and Library

Bird Library, the University research library, has an excellent collection of more than 10,000 architecture titles. In addition, the Architecture Reading Room on the third floor of Slocum Hall serves the needs of the School of Architecture and its students for quick access to course reserves, current periodical titles, and reference works. The general stack collection of more than 2,500 titles includes such commonly used architecture books as history surveys, monographs on key figures in architecture, technical sources, and reference standards. The Architecture Reading Room also houses a significant collection of prints of architectural working drawings. It provides a quiet and convenient place to study between classes, and is supported by the Syracuse University library system.

# Academic Offerings

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## Bachelor Of Architecture

School of Architecture  
201 Slocum Hall  
ph. (315)443-8242  
e. ugarch@syr.edu

Chair Timothy Stenson, 201 Slocum

Faculty Bruce Abbey, Sarosh Anklesaria, Jean-François Bédard, Larry Bowne, Lori Brown, Theodore Brown, Julia Czerniak, Lawrence Davis, Terrance Goode, Susan Henderson, Elizabeth Kamell, Randall Korman, Mark Linder, Brian Lonsway, Ryan Ludwig, Sinéad Mac Namara, Arthur McDonald, Anne Munly, Richard Rosa, Francisco Sanin, Yutaka Sho, Edward Sichta, Timothy Stenson, Robert Svetz

### PROGRAM DESCRIPTION

The B. Arch is a 5-year professional degree in Architecture. Students in the B. Arch program take courses in architectural design, theory, technology, history and professional practice. Graduates of this program are prepared to enter into the Intern Development Program (IDP) required to become a licensed architect.

### DEGREE AWARDED

This is a 162 credit major leading to a Bachelor of Architecture (B. Arch) degree.

### PREQUISITES FOR ADMISSION INTO THE B.ARCH PROGRAM

All applicants to the B. ARCH program must submit a portfolio to the School of Architecture for review.

### BArch Degree Requirements

#### Architecture Design- 54 credit hours

- ARC 107- Architectural Design I (6 credits)
- ARC 108- Architectural Design II (6 credits)
- ARC 207- Architectural Design III (6 credits)
- ARC 208- Architectural Design IV (6 credits)
- ARC 307- Architectural Design V (6 credits)
- ARC 407- Architectural Design VI (6 credits)
- ARC 408- Architectural Design VII (6 credits)
- ARC 409- Architectural Design VIII (6 credits)
- ARC 508- Architectural Design IX- Thesis (6 credits)

#### Architecture History- 12 credit hours

- ARC 133- Introduction to the History of Architecture I (3 credits)
- ARC 134- Introduction to the History of Architecture II (3 credits)
- Architecture History Elective- Choose 6 credits from the following:

ARC 331/HOA 396/SAS 396- Art and Architecture of India (3 credits)  
ARC 332/HOA 323- Sixteenth Century Italian Architecture (3 credits)  
ARC 334- The Architecture of Revolutions (3 credits)  
ARC 335/HOA 322- Early Renaissance Architecture in Italy 1400-1529 (3 credits)  
ARC 336/HOA 324- Italian Seventeenth Century Architecture (3 credits)  
ARC 337/HOA 374- American Architecture, Settlement to 1860 (3 credits)  
ARC 338/HOA 375- American Architecture, 1860-World War I (3 credits)  
ARC 431/HOA 479- Early Modern Architecture (3 credits)  
ARC 432/HOA 419- The City in Architectural History (3 credits)  
ARC 433/HOA 439- French Architecture, Sixteenth and Seventeenth Centuries (3 credits)  
ARC 435/HOA 389- Islamic Architecture (3 credits)  
ARC 436/HOA 475- Modern Architecture: The International Style to Present (3 credits)

Architecture Theory- 6 credit hours

ARC 141- Introduction to Architecture (3 credits)  
ARC 242- Architectural Theory (3 credits)

Technologies- 12 credit hours

ARC 121- Introduction to Building and Structural Systems (3 credits)  
ARC 222- Building Systems Designs I (3 credits)  
ARC 322- Building Systems Design II (3 credits)  
ARC 423- Advanced Building Systems (3 credits)

Structures- 6 credit hours

ARC 211- Structures I (3 credits)  
ARC 311- Structures II (3 credits)

Professional Requirements- 12 credit hours

ARC 181- Representation I (3 credits)  
ARC 182- Representation II (3 credits)  
ARC 505- Thesis Preparation (3 credits)  
ARC 585- Professional Practice (3 credits)

Professional Electives- 18 credit hours from the following:

ARC 500- Selected Topics in Architecture (1-3 credits)  
ARC 535- Organicism in Modern Architecture (3 credits)  
ARC 536/HOA 520- Italian Urbanism: 100 Cities (3 credits)  
ARC 537/HOA 510- Italian Medieval Architecture and Urbanism (3 credits)  
ARC 538/HOA 423- Artistic Patronage of the Medici (3 credits)  
ARC 539/HOA 571- Italian Architecture, 1909-1959 (3 credits)  
ARC 551- Le Corbusier 1887-1965 (3 credits)

ARC 553- Collage: Making Exploring Imagining Space (3 credits)  
ARC 556- Rem Koolhaas: Architect, Historian, Provocateur, Document Maker (3 credits)  
ARC 557- Utopia: Design and Cultural Imagination (3 credits)  
ARC 562- Urban Housing Morphologies (3 credits)  
ARC 563- Introduction to Computer Applications in Architecture (3 credits)  
ARC 564- Drawing (3 credits)  
ARC 565- Visual Design (3 credits)  
ARC 566/HOA 577- Introduction to Preservation (3 credits)  
ARC 568- Real Estate Design and Development (3 credits)  
ARC 571- Survey of Italian Architecture (3 credits)  
ARC 572- Advanced Computer Applications to Architecture (3 credits)  
ARC 573- American Town Planning (3 credits)  
ARC 574- Reading the Landscape (3 credits)  
ARC 575- Urban Housing: Building, Block, Street (3 credits)  
ARC 576- Theories and Analysis of Exurbia (3 credits)  
ARC 577- Visual Studies (3 credits)  
ARC 578- Façade as Idea (3 credits)  
ARC 579- Community Design Workshop (3 credits)

Arts and Sciences Requirements- 9 credit hours

WRT 105- Studio 1: Practices of Academic Writing (3 credits)

WRT 205- Studio 2: Critical Research and Writing (3 credits)

Structures Prep- Choose one of the following:

MAT 221- Elementary Probability and Statistics I (3 credits)

MAT 285- Life Sciences Calculus I (3 credits)

MAT 295- Calculus I (4 credits)

PHY 101- Major Concepts of Physics (4 credits)

Arts and Science Electives- 21 credit hours

Open Electives- 12 credit hours

Total: 162 credit hours

BArch Curriculum

First Year, Fall Semester

ARC 107- Architectural Design I (6 credits)

ARC 141- Introduction to Architecture (3 credits)

ARC 181- Representation I (3 credits)

WRT 105- Studio 1: Practices of Academic Writing (3 credits)

15

First Year, Spring Semester

ARC 108- Architectural Design II (6 credits)

ARC 133- Introduction to the History of Architecture I (3 credits)

ARC 121- Introduction to Building and Structural Systems (3 credits)

ARC 182- Representation II (3 credits)

Structures Prep (3 credits)

18

Second Year, Fall Semester

ARC 207- Architectural Design III (6 credits)

ARC 134- Introduction to the History of Architecture II (3 credits)

ARC 222- Building Systems Designs I (3 credits)

Arts and Science Electives (6 credits)

18

Second Year, Spring Semester

ARC 208- Architectural Design IV (6 credits)

ARC 242- Architectural Theory (3 credits)

ARC 211- Structures I (3 credits)

Arts and Science Elective (3 credits)

WRT 205- Studio 2: Critical Research and Writing (3 credits)

18

Third Year, Fall Semester

ARC 307- Architectural Design V (6 credits)

ARC 322- Building Systems Design II (3 credits)

ARC 311- Structures II (3 credits)

Arts and Science Electives (6 credits)

18

Third Year, Spring Semester (Off Campus Programming Available)

ARC 407- Architectural Design VI (6 credits)

Professional Electives (6 credits)

Open Elective (3 credits)

15

Fourth Year, Fall Semester (Off Campus Programming Available)

ARC 408- Architectural Design VII (6 credits)

Architecture History Elective (3 credits)

ARC 423- Advanced Building Systems (3 credits)

Professional Elective (3 credits)

15

Fourth Year, Spring Semester

ARC 409- Architectural Design VIII (6 credits)

Professional Elective (3 credits)

Arts and Science Elective (3 credits)

Open Elective (3 credits)

15

Fifth Year, Fall Semester

ARC 505- Thesis Preparation (3 credits)

Architecture History Elective (3 credits)

Professional Elective (3 credits)

Arts and Science Elective (3 credits)

Open Elective (3 credits)

15

Fifth Year, Spring Semester

ARC 508- Architectural Design IX- Thesis (6 credits)

ARC 585- Professional Practice (3 credits)

Professional Elective (3 credits)

Open Elective (3 credits)

15

## STUDY ABROAD

Students enrolled in the B.Arch. program are eligible for off campus study in our studio based programs in NYC, Florence and London after completing 5 semesters of design studio. All students wishing to study in our global campus programs must have a minimum 2.5 cumulative GPA and be in good judicial standing.

We also offer multiple non-studio based short term study programs through SU Abroad each year. Eligibility for non-studio based programs varies and is determined by the faculty member coordinating the program.

## MINORS

Architecture students may choose to pursue one of the many minors available on campus. Most minors consist of 18-credit programs and some must be taken in a particular sequence. Because of the limited number of arts and sciences and open elective credits contained in the B.Arch. program, careful planning is necessary for architecture students to complete a minor.

Students who wish to pursue a minor in schools or other colleges other than Arts and Sciences should note that it will be necessary to take additional credits beyond the 162 required for the B.Arch. degree, since only 12 credits of open electives are included in the curriculum.

Information may also be obtained from departments offering minors not described in this catalog.

Common Minors for Architecture Students are:

Landscape Architecture- SUNY ESF

Construction Management- SUNY ESF

Art History- College of Arts & Sciences

History of Architecture- College of Arts & Sciences

Management Studies- School of Management

Real Estate- School of Management

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## Minor In Architecture

### CONTACT

Karen Holl, Manager of Advising and Records  
201 Slocum Hall  
ph. (315)443-5075  
e. kbholl@syr.edu

Chair: Timothy Stenson, 201 Slocum

Faculty Bruce Abbey, Sarosh Anklesaria, Jean-François Bédard, Larry Bowne, Lori Brown, Theodore Brown, Julia Czerniak, Lawrence Davis, Terrance Goode, Susan Henderson, Elizabeth Kamell, Randall Korman, Mark Linder, Brian Lonsway, Ryan Ludwig, Sinéad Mac Namara, Arthur McDonald, Anne Munly, Richard Rosa, Francisco Sanin, Yutaka Sho, Edward Sichta, Timothy Stenson, Robert Svetz

### MINOR DESCRIPTION

Non-architecture majors may, with the permission of their home school or college, pursue a 21-credit program leading to a minor in architecture. Successful completion of the minor requires a 2.0 GPA in the 21 credits. To enroll in the minor in architecture, students may obtain a “Declaration of Minor in Architecture” form from the School of Architecture, and then secure the appropriate signatures from their home college.

### MINOR REQUIREMENTS

To complete the minor in architecture, students must take the courses listed below. No course substitutions may be made for minor requirements.

#### Required Courses:

ARC 101- The Art of Architecture for Nonmajors (3 credits)

ARC 133/CAS 133- Introduction to the History of Architecture I (3 credits)

ARC 134/CAS 134- Introduction to the History of Architecture II (3 credits)

ARC 194- Introduction to Architectural Drawing for Nonmajors (3 credits)

ARC 394- Architectural Design for Nonmajors (3 credits)

Plus two courses from the following list:

ARC 331/HOA 396/SAS 396- Art and Architecture of India (3 credits)

ARC 332/HOA 323- Sixteenth Century Italian Architecture (3 credits)

ARC 334- The Architecture of Revolutions (3 credits)

ARC 335/HOA 322- Early Renaissance Architecture in Italy 1400-1529 (3 credits)

ARC 336/HOA 324- Italian Seventeenth Century Architecture (3 credits)

ARC 337/HOA 374- American Architecture, Settlement to 1860 (3 credits)

ARC 338/HOA 375- American Architecture, 1860-World War I (3 credits)

ARC 431/HOA 479- Early Modern Architecture (3 credits)

ARC 432/HOA 419- The City in Architectural History (3 credits)

ARC 433/HOA 439- French Architecture, Sixteenth and Seventeenth Centuries (3 credits)

ARC 435/HOA 389- Islamic Architecture (3 credits)

ARC 436/HOA 475- Modern Architecture: The International Style to Present (3 credits)

Total: 21 Credit Hours

# Courses

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## Architecture

**ARC 101 The Art of Architecture 3 Y**  
Architectural concepts and form-generating principles. Lectures present historical and contemporary examples. For students outside the School of Architecture professional degree program.

**ARC 107 Architectural Design I 6 Y**  
Architectural principles through analysis, abstract exercises, and building-design problems. Use of graphic conventions and the role of drawing to convey architectural ideas.

**ARC 108 Architectural Design II 6 Y**  
Continuation of basic design principles. Design problems dealing with program, context, and construction.  
PREREQ: ARC 107.

**ARC 121 Introduction to Building and Structural Systems 3 Y**  
The basic principles of structures and construction. Develop a conceptual framework for building systems and technologies. Provide a foundation for the ongoing exploration in upper level technology/structures courses and in the design studio.

**ARC 133 Introduction to the History of Architecture I 3 Y**  
Crosslisted with: CAS 133  
Themes, concepts, and problems in architectural history from ancient Egypt to 1500. Required for architecture majors.

**ARC 134 Introduction to the History of Architecture II 3 Y**  
Crosslisted with: CAS 134  
Themes, concepts, and problems in architectural history from 1500 to the present. Required for architecture majors.  
PREREQ: ARC 133 OR CAS 133.

**ARC 141 Introduction to Architecture 3 Y**  
Basic definitions and concepts of architecture understood as a cultural artifact, specifically in relation to the city. The formal, theoretical, and pragmatic aspects of architectural practices are investigated thematically.

**ARC 181 Representation I 3 Y**  
Exploration of visual environment with sketchbook, pen, and pencil. Techniques, rules, and principles of representational freehand sketching and drawing as tools in the architectural process.

**ARC 182 Representation II 3 Y**  
Continuation of ARC 181. Development of drawing skills to explore and represent space and form required in architectural design investigation, development, and presentation. Exposure to CAD.  
PREREQ: ARC 181.

**ARC 193 Introduction to Architectural Concepts for Nonmajors 6 Y**  
Architectural issues, concepts, and design principles. Lectures, field trips, and studio exercises. For students outside the School of Architecture professional degree program.

**ARC 194 Introduction to Architectural Drawing for Nonmajors 3 Y**  
Skills and visual principles for an architect; freehand drawing and drafting. Production of a sketchbook and portfolio suitable for application to professional programs. For students outside the School of Architecture professional degree program.

**ARC 207 Architectural Design III 6 Y**  
Transition from basic design to architectural design applying principles of graphic communication and composition to architectural forms. May be repeated for credit with permission of dean's office.  
PREREQ: ARC 108.

**ARC 208 Architectural Design IV 6 Y**  
Interrelation of space, function, and structure. Continuing application of principles of graphic communication and composition. May be repeated for credit with permission of dean's office.  
PREREQ: ARC 182 AND 207.

**ARC 211 Structures I 3 Y**  
Introduces basic concepts of structural system behavior; gravity and lateral loads, analysis of major structural forms, and structural performance of materials.  
PREREQ: ARC 121 AND (MAT 221 OR 285 OR 295 OR PHY 101).

**ARC 222 Building Systems Design I 3-4 Y**  
Introduces materials and methods of building construction, basic building assemblies, and their elements. Energy conservation and regulatory codes are also addressed.  
PREREQ: ARC 121.

**ARC 242 Architectural Theory 3 Y**  
Introduction to architectural theory beginning with the Renaissance and emphasizing nineteenth and twentieth centuries. Readings and lectures emphasizing specific relationships between theoretical work and the conventions of architectural discipline.  
PREREQ: ARC/CAS 133 AND ARC/CAS 134 AND ARC 141.

**ARC 307 Architectural Design V 6 Y**  
More complex problems relating space, function, and structure. Various systems of support and enclosure.  
PREREQ: ARC 208.

**ARC 311 Structures II 3 Y**  
Design of structural systems; choice of appropriate materials and system, design of structural components in concrete, timber and steel, introduction to advanced topics such as earthquake loads, high rise construction, pre-stressed concrete, and indeterminate structures.  
PREREQ: ARC 211.

**ARC 322 Building Systems Design II 3 Y**  
Investigates systems of architectural environmental control, movement systems, and electrical distribution. Relation to building assemblies and their elements also addressed.  
PREREQ: ARC 222 AND ARC 208.

**ARC 331 Art and Architecture of India 3 Y**  
Crosslisted with: HOA 396, SAS 396  
Art and architecture of the Indian subcontinent from the Indus Valley Civilization to the present.

**ARC 332 Sixteenth Century Italian Architecture 3 S**  
Crosslisted with: HOA 323; Double Numbered with: ARC 632  
Major architects and theories of 16th-century architecture, emphasis on social and political background, patronage, and the education of the architect. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR HOA 105.

ARC 334 The Architecture of Revolutions 3 IR  
Crosslisted with: HOA 454; Double Numbered with: ARC 634  
Survey of European architectural theory and practice from the seventeenth century to the nineteenth century. Discussion and analysis of major architects, buildings, and architectural treatises, principally from France, England, and Germany. Additional work required of graduate students.

ARC 335 Early Renaissance Architecture in Italy 1400-1529 3 S  
Crosslisted with: HOA 322; Double Numbered with: ARC 635  
Architectural theory and design in Italy, 1400-1520. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR HOA 105.

ARC 336 Italian Seventeenth Century Architecture 3 IR  
Crosslisted with: HOA 324; Double Numbered with: ARC 636  
Complex and masterful accomplishments of individual architects within context of a mature architectural tradition and a particular social, economic, and religious milieu. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR HOA 105.

ARC 337 American Architecture, Settlement to 1860 3 IR  
Crosslisted with: HOA 374; Double Numbered with: ARC 637  
American architectural history and theory from first settlements through federal and Georgian to various revival modes. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR ARC 639.

ARC 338 American Architecture, 1860 - World War I 3 IR  
Crosslisted with: HOA 375; Double Numbered with: ARC 638  
American architectural history and theory from the Civil War through various revival modes to development of new commercial and residential forms before World War II. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134.

ARC 394 Architecture Design for Non Majors 3 Y  
The determination of architectural form and the process of design. For students outside the School of Architecture professional degree program.  
PREREQ: ARC 194.

ARC 397 Architectural Analysis and Design for Nonmajors 3 S  
Architectural concepts, methods of analysis and design. Offered in Florence for students outside the School of Architecture professional degree program.  
COREQ: ARC 398.

ARC 398 Architectural Concepts and Representation for Nonmajors 3 S  
Introduction to architectural concepts and theories. Instruction in the basic conventions of architectural drawing, representation, and analysis. Conducted primarily through field trips in and around Florence.  
COREQ: ARC 397.

ARC 407 Architectural Design VI 6 Y  
Required design studio. Comparative studies of architecture and urbanism or advanced intensive design studio in which students choose from a range of topics and critics.  
PREREQ: ARC 307 AND 322.

ARC 408 Architectural Design VII 6 Y  
Required design studio. Comparative studies of architecture and urbanism or advanced intensive design studio in which students choose from a range of topics and critics.  
PREREQ: ARC 407 WITH MINIMUM GRADE C.

ARC 409 Architectural Design VIII 6 Y  
Required comprehensive design studio. Considering external conditions as well as internal needs. Systems of identifying and ordering the design process.  
PREREQ: ARC 408 AND 423 OR COREQ: ARC 423.

ARC 423 Advanced Building Systems 3 S  
Case studies of the interrelationships of design concepts with construction, structural, and mechanical systems. Lecture and studio.  
PREREQ: ARC 322.

ARC 431 Early Modern Architecture 3 IR  
Crosslisted with: HOA 479; Double Numbered with: ARC 731  
Early modern architecture from the 1890s through the 1930s. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR HOA 105.

ARC 432 The City in Architectural History 3 IR  
Crosslisted with: HOA 419; Double Numbered with: ARC 732  
A single city throughout its history, or various cities at a particular time in history. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR HOA 105.

ARC 433 French Architecture, Sixteenth and Seventeenth Centuries 3 IR  
Crosslisted with: HOA 439; Double Numbered with: ARC 737  
Architecture of the Renaissance transported from Italy to France and developed into a specifically French architecture. Outstanding achievements of more than local interest. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR HOA 105.

ARC 435 Islamic Architecture 3 IR  
Crosslisted with: HOA 389; Double Numbered with: ARC 735  
Major building traditions of Islam in the Middle East, North Africa, Spain, Turkey, and India elucidated through in-depth examination of major works and principles of architectural, urban, and garden design. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR HOA 105.

ARC 436 Modern Architecture: The International Style to Present 3 IR  
Crosslisted with: HOA 475; Double Numbered with: ARC 736  
Architecture of the modern period since World War II. Major works and figures as framed by the larger architectural issues of the period. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134 OR HOA 105.

ARC 490 Independent Study 1-6 S  
In-depth exploration of a subject or issues. Individual independent study based on a plan submitted by the student. Admission by consent of supervising instructor or instructors and program chair. R

ARC 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ARC 500 Selected Topics 1-3 S  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ARC 505 Thesis Preparation 3 S  
Preparation for architectural design thesis project, ARC 508: subject selection; program and site descriptive and analytic documents; research and development of preliminary design studies.  
PREREQ: ((ARC 311 AND 322) OR (ARC 612 AND 622)) AND ((ARC 408 OR (ARC 608 WITH MINIMUM GRADE C)).

ARC 508 Architectural Design IX-Thesis 6 S  
Undergraduate thesis. Semester-long, advanced, student-originated project based on a program and research produced by the student and approved by the faculty.  
PREREQ: ARC 505 WITH MINIMUM GRADE OF C AND ARC 423.

ARC 532 Ornament and its Discontent 3 IR  
History of the theory of ornament in architecture from the Renaissance to the twentieth century.  
PREREQ: ARC 134 OR CAS 134 OR ARC 639.

ARC 535 Organicism in Modern Architecture 3 IR  
Seminar investigating the use of biological principles to generate architectural and urban form in American and European architecture, 1880-present.

ARC 536 Italian Urbanism: 100 Cities 3 S  
Crosslisted with: HOA 520  
A survey of Italian urban history: design of cities, local rituals, politics, and patronage in ancient Rome, medieval Venice, Renaissance Florence, Baroque Turin, and modern Milan. Site visits in Florence and surrounding towns. Offered only in Florence.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.

ARC 537 Italian Medieval Architecture and Urbanism 3 S  
Crosslisted with: HOA 510  
Investigates sites, buildings, and rituals of local identity in a range of centers including monasteries, castles, hilltowns, ports, republics, and tyrannies, between 300 and 1400. Trips to Umbria and Sicily. Offered only in Florence.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.

ARC 538 Artistic Patronage of Medici 3 S  
How the Medici family used art and architecture to transform themselves from private bankers into Grand Dukes of Tuscany, in the process creating the monuments by which we define the Italian Renaissance. Offered only in Florence.  
PREREQ: HOA 105 OR ARC/CAS 134.

ARC 539 Italian Architecture, 1909-1959 3 S  
Crosslisted with: HOA 571  
Italian architecture from the birth of Futurism to the end of the post-WWII reconstruction. Representative structures in Milan, Rome, Como, and Florence. Includes overnight trip to Rome. Offered only in Florence.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.

ARC 551 Le Corbusier 1887-1965 3 IR  
The work and times of the 20th century Swiss/French architect Le Corbusier (Charles Edouard Jenneret) from several vantage points: biographical data and career development, specific themes of urban theory and social progress, his artistic production as a painter, and his formal architectural strategies.

ARC 552 Politics of Public Space 3 IR  
Issues surrounding public space, politics, and power relations as they impact our public realms, through investigations of critical and political theorists, geographers, architects and artists.  
PREREQ: ARC 208.

ARC 554 Material Manifestations 3 IR  
Innovative methodologies of detailing and constructing architectural façade and structural systems completed via analysis and small-scale construction experiments, conducted in both physical and digital realms, advanced components, materials and systems.  
PREREQ: ARC 208.

ARC 556 Rem Koolhaas: Architect, Historian, Provocateur, Document Maker 3 IR  
This lecture/seminar course examines the work of contemporary Dutch architect Rem Koolhaas, investigating its historical lineage, response to cultural context, and typological innovation.

ARC 557 Utopia: Design and Cultural Imagination 3 IR  
Interdisciplinary seminar investigating the discourse, forms, and evolution of utopian experiments from pre-modern to post-modern America in four themes: wilderness, pastoralism, metropolis, and spectacle.  
PREREQ: HOA 106 OR ARC 208.

ARC 561 Survey of British Architecture 3 S  
Through a series of visits to sites and buildings across England, students are introduced to the principal architects, stylistic movements and other trends in contemporary and historical architecture in England. Offered in London only  
COREQ: ARC 407 OR 408 OR 608 OR 609.

ARC 563 Introduction to Computer Applications in Architecture 2-3 Y  
Overview of the computer and its applications to architecture. Direct involvement with the computer to resolve problems in structures, design, environmental systems, specifications, cost estimation, etc. Additional work required of graduate students.

ARC 564 Drawing 3 Y  
Exercises in line and value used to investigate issues involving observing and representing form and space. Additional work required of graduate students.  
PREREQ: ARC 182 AND ARC 108.

ARC 565 Visual Design 3 IR  
Elements and principles of visual organization, perception, and communication through various two- and three-dimensional exercises.  
PREREQ: ARC 208.

ARC 566 Introduction to Preservation 3 Y  
Crosslisted with: HOA 577  
Problems and methods in implementing continued use for quality segments of the humanly built environment.  
PREREQ: ARC 134 OR CAS 134.

ARC 568 Real Estate Design and Development 3 Y  
Analysis of the mechanisms through which real estate is developed, the interaction of public agencies, developers, and designers in initiation, financing, and design. Development fundamentals, evaluating economic feasibility, structuring developments, negotiating and present proposals.

ARC 571 Survey of Italian Architecture 3 S  
Field trips: On-site observation and study of significant buildings and spaces. May apply toward professional elective component of degree program. Offered in Italy.  
COREQ: ARC 407 OR 408 OR 608 OR 609.

ARC 572 Advanced Computer Applications to Architecture 2-3 Y  
Individual and/or group efforts at investigating and developing new computer programming requirements for architectural applications.

ARC 573 Utopia and Transformation in Early American Town Planning 3 IR  
Comparative urban analysis considering reciprocal influences of historical antecedent and utopian visions of the city in helping determine early American town and building form. Concentration on urban and architectural development of Boston, Charleston, Savannah.  
PREREQ: ARC 134 OR CAS 134.

ARC 574 Reading the Landscape 3 IR  
Designed exterior space; gardens, parks, and park systems. Selected historical periods and cultural conditions as a means to explore landscape form as an ever shifting construction of space, nature, and site.

ARC 575 Urban Housing - Building, Block, Street 3 IR  
Focus on housing as an integral part of urban structure, both formal and sociopolitical. Relationships of residential unit to building, block, and city, as they represent the individual and community, are examined.

ARC 576 Theories & Analysis of Exurbia 3 IR  
Course studies history, evolution, and contemporary condition of exurban built environment in America.  
PREREQ: ARC 208.

ARC 577 Visual Studies 3 IR  
Conceptual development and visual representation of the thesis idea.  
PREREQ: ARC 505.

ARC 578 Facade as Idea 3 IR  
Seminar in contemporary and historical examples of the phenomenon of the building facade as a primary instrument by which architecture communicates. Fourth year undergraduate or third year graduate standing.  
PREREQ: ARC 307 OR 607.

ARC 585 Professional Practice 3 S  
Legal and administrative aspects of architectural practice. The architect's role in society.  
PREREQ: ARC 322.

# Faculty

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- Bruce Abbey, Professor  
B.Arch., Cornell University, 1966; M.Arch., Princeton University, 1971  
Architectural design, architectural theory
- Sarosh Anklesaria, Assistant Professor  
M.Arch., Cornell University, 2011  
Architectural design
- Amber Bartosh, Assistant Professor  
M.Arch II, Southern California Institute of Architecture, 2010; B.A., Rice University, 2000  
Architectural Design and Technology
- Jean-François Bédard, Associate Professor;  
Chair, Graduate Program  
Ph.D., Columbia University, 2003  
Architectural history
- Larry Bowne, Associate Professor  
M.Arch., Harvard University, 1992  
Architectural Design
- Lori Brown, Associate Professor  
M.Arch., Princeton University, 1994  
Architectural design, politics of spacial production, intersections between art and architectural practices
- Theodore Brown, Professor  
M.Arch., Princeton University, 1981  
Architectural design, architectural theory
- Angie Co , Assistant Professor  
M.Arch, Columbia University, 2005; B.Arch, University of Pennsylvania, 2001  
Architectural Design
- Julia Czerniak, Professor  
M. Arch., Princeton University, 1992  
Architectural design, landscape architecture
- Lawrence Davis, Associate Professor  
M. Arch., Columbia University, 1988  
Architectural design, Registered Architect in NY State, NCARB
- Joseph Godlewski, Assistant Professor  
M.Arch, University of California at Berkeley, 2009; B.Arch, Syracuse University, 2000  
Architectural Design and History
- Terrance Goode, Associate Professor  
M. Arch., Princeton University, 1980  
Architectural design
- Susan Henderson, Professor; Honors Faculty  
Ph.D., Columbia University, 1989  
History of architecture
- Roger Hubeli, Assistant Professor  
Dipl. Arch. ETH Zurich Switzerland; CEPT School of Architecture, Ahmedabad India (Exchange Program)  
Architectural Design and Technology
- Lydia Kallipoliti, Assistant Professor  
MA, Princeton University, 2007; SMArchS, Massachusetts Institute of Technology, 2004  
Architectural Design and Theory
- Elizabeth Kamell, Associate Professor  
S.M. Arch. S, Massachusetts Institute of Technology, 1996  
Architectural design
- Randall Korman, Professor  
M.Arch., Harvard University, 1977  
Architectural design
- Bess Krietemeyer, Assistant Professor  
MS, Rensselaer Polytechnic Institute, 2009; B.Arch, Rensselaer Polytechnic Institute, 2005  
Architectural Design and Technology
- Julie Larsen, Assistant Professor
- Mark Linder, Associate Professor  
Ph.D., Princeton University, 1998  
Architectural design, architectural theory
- Brian Lonsway, Associate Professor  
M.Arch., Columbia University, 1995  
Architectural design, cultural theory, computation
- Jonathan Louie, Assistant Professor  
M.Arch II, University of California, 2012; B.Arch, Syracuse University, 2007  
Architectural Design
- Ryan Ludwig, Assistant Professor  
M.Arch. II, Harvard University, 2009  
Architectural design
- Sinéad Mac Namara, Assistant Professor  
Ph.D., Princeton University, 2006  
Civil and environmental engineering
- Arthur McDonald, Professor  
B.Arch., Pratt Institute, 1963; M.Arch., Cornell University, 1972  
Architectural and urban theory and design, urban housing, comprehensive design/technology studio
- Kyle Miller , Assistant Professor  
M.Arch, University of California, 2008; B.Arch, University of Michigan, 2004  
Architectural Design
- Anne Munly, Professor  
M.Arch., Princeton University, 1980  
Architectural design
- Robert Petrie, Assistant Professor  
M.Arch, Cornell University, 2004; B.Arch, Virginia Polytechnic Institute, 1996  
Architectural Design
- Richard Rosa, Associate Professor;  
Coordinator, Florence Program  
M.Arch., Harvard University, 1993  
Architectural design
- Francisco Sanin, Professor; Coordinator,  
London Program  
Diploma, Universidad Pontificia Bolivariana (Colombia), 1979  
Architectural design, urban design
- Yutaka Sho, Assistant Professor  
M.Arch., Harvard University, 2005  
Architectural design
- Edward Sichta, Associate Professor  
M.F.A., Syracuse University, 1969  
Drawing and visual design
- Michael Speaks , Professor, Dean  
B.A. University of Mississippi, Ph.D. Duke University
- Timothy Stenson, Associate Professor;  
Chair, Undergraduate Program  
M.Arch., University of Virginia, 1988  
Architectural design, technology, low-energy building research
- Robert Svez, Assistant Professor  
M.Arch. II, Yale University, 2002  
Architectural design, technology

# The College Of Arts And Sciences

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Karin Ruhlandt, Dean  
300 Hall of Languages  
thecollege.syr.edu/

## About The College

The College of Arts and Sciences at Syracuse University prepares students for the global workplace and for study in post-graduate and professional programs by providing a contemporary liberal arts curriculum emphasizing interdisciplinary learning, research, service, and enterprise. Students are exposed to a curriculum that is based on the principles of critical thinking, effective communication, and the analysis and understanding of data, geared to educate the leaders of tomorrow.

Rigorous programs of study across our three academic divisions—the sciences and mathematics, the humanities, and the social sciences—as well as our interdepartmental and interdivisional programs, provide students with critical skills to effectively launch successful careers in a vast array of fields.

Our graduate students — mentored by nationally and internationally renowned scholars, writers, and scientists — are immersed in an environment of academic rigor, research, and creativity where they develop the tools and skills needed to effect change and generate new knowledge and ideas in their chosen fields.

The College's three academic divisions house 22 departments that offer more than 50 majors, 40 minors, and 30 master's and Ph.D. programs. The College also offers a number of selected studies, independent study, dual and combined degree programs, as well as interdisciplinary degree options with SU's professional schools and colleges at both the undergraduate and graduate levels.

More Information:

On the Web:

The College of Arts and Sciences

Dean's Office

300 Hall of Languages

Phone: 315-443-2201

E-mail: [casdean@syr.edu](mailto:casdean@syr.edu)

## Academic Departments

The College of Arts and Sciences is a place of discovery, creativity, and imagination that forms the core of a liberal arts education at Syracuse University. Through its three academic divisions--the Sciences and Mathematics, the Humanities, and the Social Sciences (offered in collaboration with the Maxwell School of Citizenship and Public Affairs)--The College offers an eclectic array of traditional degree options as well as a number of interdisciplinary, dual, and combined-degree programs.

African American Studies

Anthropology

Art and Music Histories

Biology

Chemistry

Communication Sciences and Disorders

Earth Sciences

Economics

English

Geography

History

International Relations

Languages, Literatures, and Linguistics

Mathematics

Philosophy

Physics

Political Science

Psychology

Religion

Science Teaching

Sociology

Women's and Gender Studies

The Writing Program



## Undergraduate Studies

The College of Arts and Sciences offers undergraduate students an opportunity to explore major and minor programs in each of the academic divisions: Humanities, Natural Sciences and Mathematics, and Social Sciences. Undergraduate Social Sciences courses are taught by faculty who also hold appointments in the Maxwell School of Citizenship and Public Affairs.

Interdisciplinary and Special Programs: The College offers a number of interdepartmental and interdivisional majors and minors.

For a list of the majors and minors offered, refer to Academic Offerings to the left.

## Undergraduate General Regulations

For academic rules and regulations applying to all University students, see “Academic Rules” above, which also contains special regulations that apply to Arts and Sciences students. The regulations below apply to all students matriculated in the College of Arts and Sciences.

### DEGREES

The College of Arts and Sciences is authorized by New York State to grant the bachelor of arts (B.A.) and the bachelor of science (B.S.) degrees. Students dually enrolled in two colleges at Syracuse University are granted the appropriate degree for the home college. For example, a student in Arts and Sciences and the S.I. Newhouse School of Public Communications might receive the B.A. in political science/advertising, with Arts and Sciences as the home college. The degree(s) available for each program of study are indicated under “Academic Offerings”. Students who wish to complete the B.S. degree in an approved program submit a petition to the department and to the College of Arts and Sciences Student Records Office, 329 Hall of Languages.

### MINIMUM REQUIREMENTS

A minimum of 120 credits of coursework is required for the B.A. or B.S. degree. For all students enrolling in the College of Arts and Sciences, 30 of the 120 credits must be taken in upper-division courses. Every major leading to the bachelor’s degree in the College of Arts and Sciences must include at least 18 credits of upper-division work (courses numbered 300 and above) in the field of study. Every B.S. degree program must include at least 30 credits of upper-division coursework in the field of study, or at least 6 credits more than the B.A. program in the same field (whichever is greater), in upper-division work in the field of study. Of the upper-division credits counted toward the completion of a major, at least 12 must be taken at Syracuse University. A maximum of six credits of coursework at the 300-level or above may overlap among all majors and minors, regardless of number. Students must earn the grade point average of at least 2.0 in upper-division courses taken at Syracuse University and counted toward the completion of a major or minor. To be eligible for graduation, students must attain the minimum grade point average of 2.0 (C) in courses taken at Syracuse University.

### NINETY-SIX CREDIT RULE

Except in the dual and some selected studies programs, it is required that all singly enrolled College of Arts and Sciences students earn at least 96 arts and sciences credits (earned in the College of Arts and Sciences or transferred from another institution and accepted as arts and sciences credit). Up to 24 credits toward the 120 required for graduation may be taken in other Syracuse University colleges or schools or accepted in transfer as non-arts and sciences credit from other accredited institutions. In dual programs, the college requires that at least 90 credits be earned in the College of Arts and Sciences (or transferred from another institution and accepted as arts and sciences credit). Up to 30 non-arts and sciences credits may count toward the degree. Combined degrees require 96 arts and sciences credits and a minimum of 150 credits. Under selected studies, programs leading to the B.A. degree must include at least 90 arts and science credits, and programs leading to the B.S. degree must include at least 75 arts and science credits. A maximum of 24 credits of the combination of independent study, experience credit or pass/fail coursework may be counted toward a degree in the college. Up to 4 credits in physical education (PED) courses numbered 100 to 299 may be included among the 24 non-Arts and Sciences credits counted toward a degree in the college for singly enrolled students. PED credits may not, however, be counted toward the dual degree in Arts and Sciences and Public Communications or Arts and Sciences and Education.

### INTRA-UNIVERSITY TRANSFER

The college will review applications for intra-university transfer on a continuing basis throughout the academic year. Students interested in transferring into the College must attend an informational session in order to obtain the application materials. These meetings are held throughout the semester. The application deadline for acceptance for the fall semester is July 15 and December 15 for the spring semester. Applicants who are making satisfactory progress and have a cumulative grade point average of 3.0 or above will be admitted to the college. Students with a current cumulative GPA below 3.0 should submit a letter with the application, explaining the reason(s) for prior academic problems, why they believe they will be academically successful in the College of Arts and Sciences and what major they are interested in pursuing. Students who will have junior standing when entering the College must include a plan of study form signed by their intended major department. Incomplete applications will not be considered. The Associate Dean of Advising and Academic Support will review applications. Students will be notified by e-mail prior to the start of the semester..

## Advising And Academic Support

On the Web:  
Advising and Academic Support  
Health Professions Advising  
Pre-Law Advising

Office:

323 Hall of Languages  
Call: 315-443-3150  
E-mail: [casadvising@syr.edu](mailto:casadvising@syr.edu)

The College's Advising and Academic Support services are designed to ensure academic success for students from the time they arrive on campus through graduation. Our professional staff members work as a team to help students make a successful transition to college, to explore their interests, to develop a plan for their academic career, and to successfully meet their academic and career goals. Specifically, our professional staff members help students:

- Develop time management skills
- Identify academic enrichment opportunities
- Map strategies to improve academic performance
- Understand the Liberal Arts Core
- Select courses, majors, and minors
- Maintain steady progress toward completing degrees
- Plan for graduate school or entry into the job market

Additionally, staff members help students understand the purpose and benefits of a liberal arts education and how to effectively market a liberal arts degree to prospective employers.

Pre-professional advising services are designed for students interested in pursuing careers in the health and legal professions. Services include individual and small group, and workshops designed to enable students to successfully prepare for, and transition to, post-baccalaureate degree programs in the health and legal professions. Pre-health and pre-law advising is available to all matriculated Syracuse University and SUNY-ESF undergraduate students and alumni.

Special Note: Medical schools require applicants to obtain either a Sponsorship or Credentials letter from their respective college's pre-health advising program.

Office:  
323 Hall of Languages  
Phone: 315-443-3150  
Fax: 315-443-9397  
Email: [casadvising@syr.edu](mailto:casadvising@syr.edu)

## Declaring A Major

**Major Requirements** Each student who follows the standard arts and sciences program fulfills the requirements of at least one major. The majors available under the standard arts and sciences program, including dual and combined degree programs, are described under individual headings under Academic Offerings and also on the College's website. See below for rules governing the selection of a program.

### DECLARING A MAJOR

Before or during the second semester of the sophomore year, each student in the standard arts and sciences program selects a major in consultation with their academic advisor. The student applies to the department or committee administering major studies in that field for admission to the major. The Declaration of Major Form is used for this purpose and is available online through [Casadvising.syr.edu](http://Casadvising.syr.edu) on the Academic Forms page. To declare a major officially, a student secures the signature of the appropriate department or committee chair on this form and returns the form to the Advising and Academic Support office, Room 323, Hall of Languages. Students who fail to submit a completed Declaration of Major Form to the college Advising and Academic Support office before earning 54 total credits will be declared ineligible to register for subsequent semesters.

At various times, students are asked to state on other routine forms, including the admissions application, what their major will be. Such declarations are informal expressions of interest and intent and are not binding, either on the part of the student or the department (or committee). Completion of such routine forms does not secure admission to any major program. Only use of the Declaration of Major Form, with the signature of the chair, can accomplish that end.

### CHANGING MAJORS

Students may change a major at any time before registration for the last full semester of study by submitting a new Declaration of Major Form with the approval of the new major department or committee.

### DOUBLE MAJORS

Students may wish to declare, to fulfill the requirements for, and to graduate with two or more majors. To do so, they should indicate both majors and obtain the appropriate department signatures on the Declaration of Major Form. The second major may be added no later than the registration period for the last full semester of study.

### Special Degree Options and Combinations

#### Double Majors

Two majors may be pursued simultaneously in the College of Arts and Sciences or in the college and another school or college at the University. Students must fulfill all the requirements for both majors as well as all other degree requirements of The College. A single degree is conferred by the college. The two majors appear on the transcript. Of the 300-level and higher coursework offered toward the satisfaction of the requirements of the two majors, a maximum

of six credits may overlap. Students singly enrolled in the college who have a second major in another school or college must still earn the minimum of 96 credits in the College of Arts and Sciences.

Please note: Arts and Sciences students may not declare the double major in any of the following areas: English education; science education; mathematics education; social studies education; advertising; broadcast journalism; graphic arts; magazine; newswriting; photography; public relations; television, radio, and film.

## Liberal Arts Core

The Liberal Arts Core requirements are a set of principles that flexibly guide students to select courses and serve to define the common structural core of a liberal arts education at Syracuse. They were devised and adopted by the faculty of the college. They assure that each student's course of study includes the most important features of an education in the liberal arts. There are three fundamental parts to the Liberal Arts Core requirements: I. Liberal Skills; II. Divisional Perspective; and III. Critical Reflections.

### I. LIBERAL SKILLS

The Liberal Skills Requirement asks each student to further develop fundamental intellectual skills of effective writing and gives the student a choice of whether to satisfy a requirement in second language skills or quantitative skills.

#### Writing Skills (3 courses)

Students are required to complete the following:

The first of these courses is chosen from Writing Studio 1: Practices of Academic Writing (WRT 105 or WRT 109) or First Year Seminar (CAS 100) or Composition for Non-Native Speakers of English (ENL 211) .

During the second year, students will take the higher level Writing Studio 2: Critical Research and Writing (WRT 205 or WRT 209) or Advanced Academic Writing and Research for Non-Native Speakers of English (ENL 213).

Before WRT 205 (or WRT 209) or ENL 213 is taken, students will take a Writing-Intensive course (list below) in a subject matter other than writing, a course that has been specially designed to give attention to developing writing ability while studying another subject matter

The remainder of the Liberal Skills requirement includes either the Language Skills or Quantitative Skills requirement which gives students the option of demonstrating a university-level competence in either

- a language other than English, or
- the use of quantitative methods to understand and solve problems.

### II. DIVISIONAL PERSPECTIVE

1. A student must take four 3- or 4-credit courses in each of the three curricular divisions of the College of Arts and Sciences: the Humanities, the Natural Sciences and Mathematics, and the Social Sciences divisions.
2. In each division, two of the courses must constitute an approved sequence.
3. Of the twelve courses used to satisfy the divisional requirement, no more than three courses may be taken from a single department or program (even if the courses of the department or program are in more than one division), with the exception of 3-credit HNR courses offered by the Renée Crown University Program. Any course cross listed is considered to belong to each of the departments in the cross listing. Therefore it counts as one of the maximum of three allowed from a single department to fulfill the divisional distributional requirement. Experience Credit and Independent Study credit cannot be used to satisfy the Divisional Perspective Requirement.
4. In each division, no more than one course may be selected from schools and colleges outside the College of Arts and Sciences.
5. In the Natural Sciences and Mathematics Division, at least one laboratory course must be included.

### III. COURSES FOR THE CRITICAL REFLECTIONS REQUIREMENT

Students are required to take two courses from the list provided on the College of Arts and Sciences web site. These courses may be simultaneously used to partially satisfy other liberal arts core requirements or requirements for majors and minors.

Transfer credit is not accepted for Critical Reflections requirements except when defined in articulation agreements.

## Writing Intensive Requirement

Students will take a Writing-Intensive course as a prerequisite to taking WRT 205 in their fourth semester. The courses approved for satisfying this requirement are listed below. Transfer and other credit are not accepted for the Writing Intensive Requirement.

### AFRICAN AMERICAN STUDIES

- AAS 138 Writing About Black Culture
- AAS233 The Caribbean Novel
- AAS234 African Fiction
- AAS235 African American Drama
- AAS/WGS 303 Black Women Writers
- AAS 305 African Orature

AAS 312 Pan Africanism  
AAS 338 Creative Writing Workshop

#### ART AND MUSIC HISTORIES

HOA 106 (honors section only) Arts and Ideas II  
HOA 412 The Gothic Spell  
HOM 363 Opera in Society  
HOM 372 Music in Multicultural America  
HOM 485 Contemporary Indigenous Soundscapes  
HOM 493 Music and Identity

#### ANTHROPOLOGY

ANT 185 Global Encounters: Comparing World Views & Values Cross-Culturally  
ANT/SAS/WGS 324 Modern South Asian Cultures  
ANT/GEO/WGS 367 Gender in a Globalizing World

#### EARTH SCIENCES

EAR 325 Introduction to Paleobiology

#### ENGLISH AND TEXTUAL STUDIES

ETS 113 Survey of British Literature, Beginnings to 1789  
ETS 114 Survey of British Literature, 1789 to Present  
ETS 115 Topics in British Literary History  
ETS 117 Survey of American Literature, Beginnings to 1865  
ETS 118 Survey of American Literature, 1865 to Present  
ETS 119 Topics in US Literary History  
ETS 121 Introduction to Shakespeare  
ETS 122 Introduction to the Novel  
ETS 142 Narratives of Culture: Introduction to Issues of Critical Reading  
ETS 146 Reading Screen Culture  
ETS 151 Interpretation of Poetry  
ETS 152 Interpretation of Drama  
ETS 153 Interpretation of Fiction  
ETS 154 Interpretation of Film  
ETS 155 Interpretation of Nonfiction  
ETS 181 Class and Literary Texts  
ETS 182 Race and Literary Texts  
ETS 184 Ethnicity and Literary Texts  
ETS/WGS 192 Gender and Literary Texts  
ETS 235 Classics of World Literature I  
ETS 236 Classics of World Literature II

#### GEOGRAPHY

GEO 155 (honors only) The Natural Environment  
GEO 171 Human Geographies  
GEO 219 (honors only) American Diversity and Unity  
GEO 272 World Cultures  
GEO 273 World Political Economy  
GEO 353 Geographies of Environmental Justice  
GEO/ANT/WGS 367 Gender in a Globalizing World

#### HISTORY

HST 101, HST 102 American History to 1865; American History Since 1865  
HST 111 Early Modern Europe, 1350-1815  
HST 112 Modern Europe: Napoleon to the Present  
HST 201 Research Seminar in History  
HST 210 The Ancient World  
HST 212 Religion in Medieval & Reformation Europe  
HST/MES 318 The Middle East to 1900  
HST 347 Modern American Politics Through Fiction  
HST/QSX 348 Queering the Middle Ages?  
HST 398 Saints and Sinners in the Middle Ages  
HST 399 Early Monasticism

#### INTERNATIONAL RELATIONS PROGRAM

IRP/PSC 412 Global Governance

#### JEWISH STUDIES PROGRAM

JSP/LIT/REL 235 Travel Narratives and Pilgrimages

JSP/LIT/REL 333 Yiddish Literature in Translation

#### LESBIAN, GAY, BISEXUAL AND TRANSGENDER STUDIES

QSX/HST 348 Queering the Middle Ages?

QSX/REL 357 Queerly Religious

#### LITERATURE IN TRANSLATION

LIT/REL/JSP 235 Travel Narratives and Pilgrimages

LIT/REL/JSP 333 Yiddish Literature in Translation

#### MAXWELL SCHOOL OF CITIZENSHIP AND PUBLIC AFFAIRS

MAX 123 Critical Issues for the United States

MAX 132 Global Community

#### MIDDLE EASTERN STUDIES

MES/HST 318 The Modern Middle East to 1900

#### PHILOSOPHY

PHI 107 Theories of Knowledge and Reality

PHI 109 Introduction to Philosophy (Honors)

PHI 111 Plato's Republic

PHI 172 Making Decisions

PHI 197 Human Nature

PHI/WGS 297 Philosophy of Feminism

PHI 319/PSC 399/REL 371 God in Political Theory

#### POLITICAL SCIENCE

PSC 399/REL 371/PHI 319 God in Political Theory

PSC/IRP 412 Global Governance

#### RELIGION

REL/SAS 123 Religious Auto/Biography

REL/JSP/LIT 235 Travel Narratives and Pilgrimages

REL 261 Faith and Reason in Islamic Thought and Civilization

REL/SAS 283 India's Religious Worlds

REL 301 Ancient Near Eastern Religion and Cultures

REL/LIT/JSP 333 Yiddish Literature in Translation

REL/QSX 357 Queerly Religious

REL 367 God and Beauty in Islamic Art

REL 371/PHI 319/PSC 399 God in Political Theory

REL 385 Religion in Chinese Society

REL 393 Extreme Religion

#### SOUTH ASIAN STUDIES

SAS/REL 123 Religious Auto/Biography

SAS/REL 283 India's Religious Worlds

SAS/ANT/WGS 324 Modern South Asian Cultures

#### SPANISH

SPA 465 Literature and Popular Culture in Latin America

#### WOMEN'S AND GENDER STUDIES

WGS 101 Introduction to Women's and Gender Studies

WGS/ETS 192 Gender and Literary Texts

WGS 201 Transnational Feminist Studies

WGS/PHI 297 Philosophy of Feminism

WGS/AAS 303 Black Women Writers

WGS/ANT/SAS 324 Modern South Asian Cultures

WGS/SWK 328 Human Diversity in Social Contexts

WGS/ANT/GEO 367 Gender in a Globalizing World

#### OTHER SCHOOLS AND COLLEGES

DAVID B. FALK COLLEGE OF SPORT AND HUMAN DYNAMICS

Only Available For Students in the RENÉE CROWN HONORS PROGRAM

HNR 240 Arts Without Borders  
HNR 260 Ethics in the 21st Century  
HNR 260 History of the Women's Suffrage Movement  
HNR 260/GEO 219 American Diversity and Unity  
HNR 260/WGS 200 History of the Women's Suffrage Movement  
HNR 340 Fiction Writing Workshop  
HNR 340 Tell Your Story Walking  
HNR 360/HST 347 Modern American Politics Through Fiction

Notes: Transfer and other credit are not accepted for the Writing Intensive Requirement. • These courses may not be used to satisfy the Writing Intensive Requirement if taken prior to Fall 1995.

## Divisional Perspective Requirement

### THE HUMANITIES DIVISION

The Humanities Division encompasses the history, theory, analysis and criticism of language, literature and other texts, religion, art, and music; and the examination of fundamental questions arising in the human search for values, knowledge, purpose, and meaning. These are central concerns of the departments or programs of African American Studies; English; Languages, Literatures and Linguistics; Art and Music Histories; Philosophy; Religion and Women's Studies. Hence, most courses satisfying the Humanities Division requirements come from these departments and programs.

### THE HUMANITIES LIST

Students must take at least four courses from the following list, including a two-course sequence (indicated by hyphens), to complete the requirement for four courses in this division. No more than three courses may be taken from a single department or program (even if the courses of the department or program are in more than one division).

#### AFRICAN AMERICAN STUDIES

AAS 138 Writing About Black Culture  
AAS 206/207 Introduction to African American Music; Survey of African Music  
AAS 231/232 African American Literature to 1900; African American Literature: 20th and 21st C  
AAS 233/234 The Caribbean Novel; African Fiction  
AAS 235 African American Drama  
AAS 241/REL 281- African Religions: An Introduction;  
AAS/REL 345 African American Religious History  
AAS 302 Contemporary African American Theater  
AAS/WGS 303 Black Women Writers  
AAS 304 Workshop in African American Theater  
AAS 305 African Orature  
AAS 331 The African American Novel: Twentieth and Twenty-First Centuries  
AAS 338 Creative Writing Workshop  
AAS/REL 345 African American Religious History  
AAS 361/ HOA 386 Art of the Black World  
AAS/WGS 403 African/Caribbean Women Writers  
AAS 408 Masters of Black Music  
AAS 409 History of Jazz, 1940 to Present  
AAS 433 The Harlem Renaissance: Literature and Ideology  
AAS 465 The Image of Blacks in Art and Film  
AAS 470 Internship in African American Studies (when appropriate, by petition)  
AAS 490 Independent Study (when appropriate, by petition)  
AAS 540 Seminar in African American Studies (when appropriate, by petition)

#### ANTHROPOLOGY

ANT 185 Global Encounters: Comparing World Views and Values Cross Culturally  
ANT/LIN 202 Languages of the World  
ANT 273/REL/NAT 244 Indigenous Religions  
ANT 326/WGS 327 Africa Through the Novel  
ANT 376 Folklore  
ANT/LIN/WGS 472 Language, Culture, and Society

#### ART AND MUSIC HISTORIES

All HOA & HOM courses.

The following are Art and Music Histories sequences:

HOA 105- HOA 106 Arts and Ideas I, II

HOM 165- HOM 166 Understanding Music I, II

HOM 195 Performance Live - Any 300 level or 400 level HOM course

HOM 285 Introduction to World Music – and one other HOM music course HOM 381 through HOM 389 or HOM 481 through HOM 489

HOM 325 – HOM 326 Music in Latin America; Music in the Caribbean

HOM 353 Worlds of Dance with Any HOM course in the 350's or 450's

Any two HOA or HOM courses in the 260s, 360s, and 460s.

Any two HOA or HOM courses in the 370s and 470s.

#### COGNITIVE SCIENCE

COG courses may be accepted by petition.

#### COMMUNICATION SCIENCES AND DISORDER

CSD 316 Introduction to Applied Phonetics

#### ENGLISH AND TEXTUAL STUDIES

All ETS courses.

A sequence can be made up of any two 100 - level ETS courses, any two 200-level ETS courses, or a combination of one 100-level ETS course and one 200-level ETS course, or the combination of ETS 242 and ETS 305.

#### HISTORY

HST 111 - HST 112 Early Modern Europe, 1350-1815; Modern Europe: Napoleon to the Present

HST 210 - HST 211 The Ancient World; Medieval & Renaissance Europe

HST 210 - HST 212 The Ancient World; Religion in Medieval & Reformation Europe

HST 211 - HST 212 Medieval & Renaissance Europe; Religion in Medieval & Reformation Europe

HST 310 The Early Middle Ages

HST 311 Medieval Civilization

HST 312 Reformation of the Sixteenth Century

HST 320 Traditional China

HST 321 Modern China

HST 354 Decline and Fall of the Roman Empire

HST 355 The Italian Renaissance

HST 357 Culture and Politics in Early Modern England: From Henry VIII to Elizabeth I

HST 358 Revolution and Reaction in Seventeenth Century England

HST/WGS 379 Gender, Race and Colonialism

#### HONORS

HNR 240, 340, 440 Honors Humanities Courses

#### HUMANITIES

All HUM courses.

#### JEWISH STUDIES

JSP courses that are cross listed with humanities courses

#### LANGUAGES

ARABIC All ARB courses 202 and above.

CHINESE All CHI courses 202 and above.

#### FRENCH AND FRANCOPHONE STUDIES

FRE 305-FRE 306 Evolution and Revolution through the Centuries; From Romanticism to Postmodernism

FRE 315-FRE 316 French Civilization; Contemporary French Culture

All FRE courses 202 and above

GERMAN All GER courses 202 and above

GREEK All GRE courses 202 and above.

Any LAT or GRE course at or above the 300 level (LAT 310, 320, 410, 420; GRE 310, 320, 410, 420) constitute a sequence.

HEBREW All HEB courses 202 and above.

HINDI/URDU All HIN courses 202 and above.

ITALIAN All ITA courses 202 and above.

JAPANESE All JPS courses 202 and above

KISWAHILI All SWA courses 202 and above.

KOREAN All KOR courses 202 and above.

LATIN All LAT courses 202 and above

Any LAT or GRE course at or above the 300 level (LAT 310, 320, 410, 420; GRE 310, 320, 410, 420) constitute a sequence.

PERSIAN All PRS courses 202 and above.

POLISH All POL courses 202 and above

PORTUGUESE All POR courses 202 and above.

RUSSIAN

RUS/LIT 331-LIT 226 Russian Culture Through Fiction and Film; Dostoevsky and Tolstoy;

RUS/LIT 331-LIT 227 Russian Culture Through Fiction and Film; Pasternak and Solzhenitsyn

All RUS courses 202 and above.

SPANISH

SPA 301-SPA 321 Approaches to Reading Texts; Introduction to Spanish Literature

SPA 301-SPA 322/LAS 302 Approaches to Reading Texts; Introduction to Latin American Literature

SPA 321- SPA 322/LAS 302 Introduction to Spanish Literature; Introduction to Latin American Literature

All SPA courses 202 and above.

TURKISH All TRK courses 202 and above.

LATINO-LATIN AMERICAN STUDIES

LAS 302/SPA 322 Introduction to Latin American Literature

LAS/SPA 326 Beyond the Screen: Latin American and Spanish Film

LAS/SPA 402 Hispanic Journalistic Practices

LAS/PHI 425 Post-colonialism and Philosophy

LAS/SPA 433 Business Spanish

LAS/SPA 461 Nobel Prize Writers of the Spanish-Speaking World

LAS/SPA 463 Contemporary Latin American Theater

LAS/SPA 465 Literature and Popular Culture

LAS/SPA 467 Film and Literature

LAS/SPA 471 Contemporary Latin American Literature

LAS/SPA/WGS 475 Women, Myth and Nation in Latin American Literature

LAS/SPA 479 Perspectives on Mexico and Central America: Literature, Art, Film

LAS/SPA 481 The Literature of Latinos in the United States

LAS/SPA 489 Hispanic Caribbean Narrative

LAS/SPA 493 Afro-Hispanic Topics in Caribbean Literature

LAS/SPA 495 Marginal Culture in Hispanic Caribbean Literature

LAS/SPA 497 Text and Context in Cuban Revolutionary Literature

LESBIAN, GAY, BISEXUAL AND TRANSGENDER STUDIES

QSX 112 Sexualities, Genders, Bodies

QSX 357 Queerly Religious

LINGUISTICS

All LIN courses

LIN 201-LIN/ANT 202 The Nature and Study of Language; Languages of the World

LIN 201-LIN 251 The Nature and Study of Language; English Words

LITERATURE IN TRANSLATION

All LIT courses.

LIT 101- LIT 102 Introduction to Classical Literature

LIT 101- LIT 203 Introduction to Classical Literature; Greek & Roman Epic in English Translation

LIT 101- LIT 211 Introduction to Classical Literature; Greek & Roman Drama in English Translation

LIT 102- LIT 203 Introduction to Classical Literature; Greek & Roman Epic in English Translation

LIT 102- LIT 211 Introduction to Classical Literature; Greek & Roman Drama in English Translation

LIT 203- LIT 211 Greek & Roman Epic in English Translation; Greek & Roman Drama in English Translation

LIT 226-LIT 227 Dostoevsky and Tolstoy; Pasternak and Solzhenitsyn

LIT 226-RUS/LIT 331 Dostoevsky and Tolstoy; Russian Culture Through Fiction and Film

LIT 227-RUS/LIT 331 Pasternak and Solzhenitsyn; Russian Culture Through Fiction and Film

LIT 241- LIT 242 Dante and the Medieval World; Petrarch and the Renaissance World

MIDDLE EASTERN STUDIES

MES/REL/SAS 165 Discovering Islam

MES/LIT 336 Arabic Cultures

MES 365/SAS/REL 367 God and Beauty in Islamic Art

MES/SAS/REL/WGS 465 Beyond the Veil: Gender Politics in Islam

NATIVE AMERICAN STUDIES

NAT/REL 142 Native American Religion

NAT 208 Haudenosaunee Languages and Culture

NAT/REL 244/ANT 273 Indigenous Religions

NAT 346/ HOA 387 Native North American Art

NAT/REL 347 Religion and the Conquest of America

NAT/REL 348 Religion and American Consumerism

#### PHILOSOPHY

All PHI courses.

A sequence can be made up of any two 100-level PHI courses, any two 200-level PHI courses, or a combination of one 100-level PHI and one 200-level PHI courses with the following exception: the combination of PHI 171 and PHI 172 does not constitute a sequence.

#### RELIGION

All REL courses.

Any REL course with any REL course at the 200-level or above.

#### SOUTH ASIAN STUDIES

SAS/REL 123 Religious Auto/Biography

SAS/REL/MES 165 Discovering Islam

SAS/REL 185 Hinduism

SAS/REL 186 Buddhism

SAS/REL 283 India's Religious Worlds

SAS/REL 367/MES 365 God and Beauty in Islamic Art

SAS/REL/WGS 384 Goddesses, Women, and Power in Hinduism

SAS/WGS/REL/MES 465 Beyond the Veil: Gender Politics in Islam

#### WOMEN'S AND GENDER STUDIES

WGS 101-WGS/PHI 297 Introduction to Women's and Gender Studies; Philosophy of Feminism

All WGS courses cross-listed with ETS, HOA, HOM, LIT, PHI, & REL in addition to the following:

WGS 301 Feminist Theories

WGS/AAS 303 Black Women Writers

WGS 310 Feminist Inquiries (when appropriate, by petition)

WGS 327/ANT 326 Africa Through the Novel

WGS/HST 379 Gender, Race and Colonialism

WGS/SAS/REL 384 Goddesses, Women, and Power in Hinduism

WGS 400 Selected Topics (when appropriate, by petition)

WGS/AAS 403 African/Caribbean Women Writers

WGS 410 Advanced Studies in Feminist Thought (when appropriate, by petition)

WGS/SAS/REL/MES 465 Beyond the Veil: Gender Politics in Islam

WGS/ANT/LIN 472 Language, Culture, and Society

WGS/LAS/SPA 475 Women, Myth and Nation in Latin American Literature

WGS 490 Independent Study (when appropriate, by petition)

#### WRITING PROGRAM

WRT 114 Writing Culture

WRT 255 Advanced Argumentative Writing

WRT 413 Rhetoric and Ethics

WRT 422 Studies in Creative Nonfiction

WRT 423 African American Rhetoric

WRT 424 Studies in Writing, Rhetoric, Identity

WRT 428 Studies in Composition, Rhetoric, and Literacy

#### OTHER SCHOOLS AND COLLEGES

#### INTERDEPARTMENTAL SEQUENCES IN THE HUMANITIES

LIN 201-PHI 251 The Nature and Study of Languages; Logic

ANT 185- WGS 101 Global Encounters: Comparing World Views and Values Cross Culturally; Introduction to Women's and Gender Studies

#### THE NATURAL SCIENCES AND MATHEMATICS DIVISION

The Natural Sciences and Mathematics Division encompasses the investigation of natural phenomena, including the development of predictive explanatory systems, and includes the study of numerical and other abstract structures and relations. These are central concerns of the departments of Biology, Chemistry, Earth Sciences (Geology), Physics, and Mathematics. Hence most courses satisfying the Natural Sciences and Mathematics Division requirements come from these departments.

#### THE NATURAL SCIENCES AND MATHEMATICS LIST

Students must take at least four courses from this list, including a 2-course sequence (indicated by hyphens) and a course with a laboratory (indicated by course numbers in bold print) to complete the requirement for four courses in this division. No more than three courses may be taken from a single

department or program (even if the courses of the department or program are in more than one division).

#### ANTHROPOLOGY

ANT 131- ANT 433 Introduction to Biological Anthropology; Human Osteology

#### ASTRONOMY

AST 101 Our Corner of the Universe

AST 104 Stars, Galaxies, and the Universe

All AST courses.

A sequence can be made up of any two 100-level PHY or AST courses, any two 200-level PHY or AST courses, or a combination of one 100-level PHY or AST and one 200-level PHY or AST course.

#### BIOLOGY

BIO 121, BIO 123, BIO 124 General Biology I & II

All BIO courses.

#### CHEMISTRY

CHE 103 - CHE 113 Chemistry in the Modern World; Forensic Science

CHE 106 (CHE 107), CHE 116 (CHE 117) General Chemistry Lecture I (General Chemistry Laboratory I); General Chemistry Lecture II (General Chemistry Laboratory II)

CHE 109 (CHE 129), CHE 119 (CHE 139) General Chemistry Lecture I - Honors and Majors (General Chemistry Laboratory I - Honors and Majors); General Chemistry Lecture II - Honors and Majors (General Chemistry Laboratory II - Honors and Majors)

Credit is given for CHE 106/116 or , CHE 109/119 but not for both. Note: this is the same for the lab CHE 107 - CHE 117 or CHE 129 - CHE 139

All CHE courses.

#### COGNITIVE SCIENCE

COG courses may be accepted by petition.

#### COMMUNICATION SCIENCES AND DISORDERS

CSD 212 - CSD 315 Introduction to Communication Sciences and Disorders: Anatomy and Physiology of Speech and Hearing

CSD 212 - CSD 325 Introduction to Communication Sciences and Disorders: Fundamentals of Hearing Science

CSD 345 Speech Science

CSD/NEU 409 Cognitive Neuroscience of Speech and Language

#### EARTH SCIENCES

First Course in the Sequence: EAR 110 (Dynamic Earth) or EAR 105 (Earth Science) or EAR 203 (Earth System Science)

Second Course in the Sequence: EAR 210 (History of Earth and Life), or EAR 106 (Geohazards & Natural Disasters), or EAR 111 (Climate Change Past and Present), or EAR 117 (Oceanography), or EAR200 (Selected topics), or EAR 205 (Water and Our Environment), or EAR 225 (Volcanoes and Earthquakes)

Prospective Earth Science majors are strongly encouraged to take the EAR 110 - EAR 210 sequence.

Courses can be taken in any order except EAR 210 which requires a prerequisite of either EAR 110 or EAR 203 or both EAR 105 and EAR 104.

ANY EAR course will count toward the divisional requirement of four courses in the natural sciences and mathematics. Credit is given for EAR 110 (formerly EAR101) or EAR 105 or EAR 203, but not for more than one of these specific courses.

#### GEOGRAPHY

GEO 155 - GEO 215 The Natural Environment; Global Environmental Change

GEO 155 - GEO 316 The Natural Environment; River Environments

GEO 155 - GEO 326 The Natural Environment; The Geography of Climate and Weather

GEO 482 Environmental Remote Sensing

GEO 455 Biogeography

GEO 583 Environmental Geographical Information Systems

#### HONORS

HNR 250, 350, 450 Honors Natural Sciences & Mathematics Courses

HNR 255, 355, 455 Topics in Science with Laboratory Component

#### MATHEMATICS

MAT 285/286 Life Sciences Calculus I, II

MAT 295/296 Calculus I, II

All MAT courses above 230. (MAT 284 cannot be used simultaneously to meet the divisional perspective requirement and to meet the Quantitative Skills Requirement.)

## PHYSICS

PHY 101 Major Concepts of Physics I

PHY 102 Major Concepts of Physics II

PHY 211 or PHY 215 (PHY 221) General Physics I

PHY 212 or PHY 216 (PHY 222) General Physics II

All PHY courses.

A sequence can be made up of any two 100-level PHY or AST courses, any two 200-level PHY or AST courses, or a combination of one 100-level PHY or AST and one 200-level PHY or AST course.

## PSYCHOLOGY

PSY 223 Introduction to Cognitive Neuroscience

PSY 323 Brain and Behavior

PSY 324 Developmental Biopsychology

PSY 334 Laboratory in Developmental Biopsychology

## SCIENCE TEACHING

All SCI courses.

## SCIENCE, TECHNOLOGY, AND SOCIETY

STS course may be accepted by petition.

## OTHER SCHOOLS AND COLLEGES

\*Apply as Non-Arts & Sciences credit

## COLLEGE OF HUMAN ECOLOGY

\*NSD 225 Nutrition in Health

## THE SOCIAL SCIENCES DIVISION

The Social Sciences Division encompasses the history, theory, and investigation of societies, systems, regions, groups and individuals. These are central concerns of the departments of African American Studies, Anthropology, Economics, Geography, History, Political Science, Public Affairs, Psychology, Sociology, International Relations and Women's Studies. Hence most courses satisfying the Social Sciences Division requirements come from these departments.

## THE SOCIAL SCIENCES LIST

Students must take at least four courses from the following list, including a 2-course sequence (indicated by hyphens) to complete the requirement for four courses in this division. No more than three courses may be taken from a single department or program (even if the courses of the department or program are in more than one division).

## AFRICAN AMERICAN STUDIES

AAS/ANT 112-AAS202 Introduction to African American Studies in Social Sciences; Caribbean Society Since Independence

AAS/ANT 112- AAS/SOC 254 Introduction to African American Studies in Social Sciences; Comparative Study of American Ethnic Communities

AAS/PSC 306- AAS/PSC 341 African American Politics; Politics of Africa

AAS 312 Pan Africanism

AAS/HST 332 African American History

AAS/HST 333 African American History

AAS/PSC 341 Politics of Africa

AAS/SOC 353 Sociology of the African American Experience

AAS/HST 402 Slavery and Abolition

AAS/SOC 410 Seminar on Social Change

AAS 470 Internship in African American Studies (when appropriate, by petition)

AAS 490 Independent Study (when appropriate, by petition)

AAS 501 African American Sociological Practice, 1900-1945

AAS 512 African American Women's History

AAS 525 Research Methods in African American Studies

AAS 540 Seminar in African American Studies (when appropriate, by petition)

## ANTHROPOLOGY

ANT 111 Introduction to Cultural Anthropology,

together with any ANT 200 level or above course, constitutes a sequence except ANT 202, 273, 326, 376, and 433.

ANT 121 Peoples and Cultures of the World,

together with any ANT 200 level or above course, constitutes a sequence except ANT 202, 273, 326, 376, and 433.

ANT 141-ANT/HST 145 Introduction to Archaeology and Prehistory; Introduction to Historical Archaeology

ANT 185 Global Encounters: Comparing World Views and Values Cross-Culturally,  
Together with any ANT 200 level or above course, constitutes as a sequence except ANT 202, 273, 326, 376, and 433.

Any ANT course except ANT 131, 185, 202, 273, 326, 376, 433, and 472.

COGNITIVE SCIENCE COG courses may be accepted by petition.

#### COMMUNICATION, SCIENCES & DISORDERS

CSD 303 Communication in the Classroom

CSD 422 Normal Development of Speech and Language

CSD 427 Articulation Disorders

#### ECONOMICS

ECN 101 - ECN 102 Introductory Microeconomics; Introductory Macroeconomics

ECN 203 - ECN 301 Economic Ideas and Issues; Intermediate Microeconomics

ECN 203 - ECN 302 Economic Ideas and Issues; Intermediate Macroeconomics

ECN 203 - ECN 304 Economic Ideas and Issues; The Economics of Social Issues

ECN 203 - ECN 311 Economic Ideas and Issues: Intermediate Mathematical Microeconomics

All ECN courses.

#### GEOGRAPHY

GEO 103 - GEO 203 Environment and Society; Society and the Politics of Nature

GEO 103 - GEO 317 Environment and Society– Geography of Mountain Environments

GEO 103 - GEO 353 Environment and Society; Geographies of Environmental Justice

GEO 103 - GEO 354/HST 384 Environment and Society; American Environmental History and Geography

GEO 103 - GEO 356 Environment and Society; Environmental Ideas and Policy

GEO 105 - GEO 273 World Geography; World Political Economy

GEO 171 - GEO 272 Human Geographies; World Cultures

GEO 171 - GEO 273 Human Geographies; World Political Economy

GEO 272 - GEO 273 World Cultures; World Political Economy

All GEO courses except GEO 155, 215, 316, 326, 482, 455, 583.

#### HISTORY

HST 101- HST 102 American History to 1865; American History Since 1865

HST 121- HST 122 Global History to 1750; Global History 1750 to Present

All HST courses except HST 111, 112, 210, 211, 212, 310, 311, 312, 320, 321, 354, 355, 357, 358, 379

#### HONORS

HNR 260, 360, 460 Honors Social Sciences Courses

#### INTERNATIONAL RELATIONS

All IRP courses

#### JEWISH STUDIES

JSP/HST 362 Nazi Germany and the Holocaust

#### LATINO-LATIN AMERICAN STUDIES

LAS 313/HST 323 Modern Latin America

LAS 318/ ANT 322 South American Cultures

LAS/GEO 321 Latin American Development

LAS/HST 322 Colonial Latin America

LAS/HST 324 Recent Latin American History

LAS/PSC 333 Politics of Latin America

LAS/PSC 358 Latin American International Relations

LAS/HST/WGS 371 Gender in Latin American History

LAS/HST/NAT 372 Race in Latin America

#### LAW IN THE LIBERAL ARTS

LLA 201 Elements of Law

#### LESBIAN, GAY, BISEXUAL, TRANSGENDER STUDIES

QSX 111 Queer Histories, Communities, and Politics

QSX /HST 348 Queering in the Middle Ages?

#### MAXWELL

MAX 123- MAX 132 Critical Issues for the United States; Global Community

- These courses constitute a sequence and may be taken in any order.  
All MAX courses except MAX 201.

#### MIDDLE EASTERN STUDIES

MES/HST 318 - MES/PSC 344 Introduction to the Middle East; Politics of the Middle East  
MES/HST 319 The Middle East in the 20th Century  
MES/PSC 345 Islam and Politics in Asia  
MES/PSC 349 Politics of Iran  
MES/PSC 366 Representations of the Middle East  
MES/PSC 367 Oil, Water, and War  
MES/HST/PSC 368 Islam and the West (taught in London only)  
MES/ANT/HTW 382 Health in the Middle East  
MES/PSC 391 Revolutions in the Middle East  
MES/PSC 392 Sociology of Islamic Fundamentalism  
MES/PSC 393 Middle Eastern Political Systems  
MES/PSC 394 History of Islamic Political Thought  
MES/PSC 395 Democratization in the Muslim World  
MES/ANT/IRP 468 Middle East in Anthropological Perspective

#### NATIVE AMERICAN STUDIES

NAT 105 Introduction to Native American Studies  
NAT/ANT 323 Peoples and Cultures of North America  
NAT/HST/LAS 372 Race in Latin America  
NAT/SOC 441 Federal Indian Policy and Native American Identity  
NAT/SOC 444 Contemporary Native American Movements  
NAT/ANT 445 Public Policy and Archaeology  
NAT/ANT 447 Archaeology of North America  
NAT/ANT 456 Representations of Indigenous Peoples in Popular Culture  
NAT/ANT 459 Contemporary Native North American Issues  
NAT/ANT 461 Museums and Native Americans

#### PUBLIC AFFAIRS

All PAF courses.

#### POLITICAL SCIENCE

PSC/AASPSC 306-PSC/AAS 341 African American Politics; Politics of Africa  
PSC 308 - PSC 309 Politics of U.S. Public Policy; Interest Group Politics  
PSC 324- PSC 325 Constitutional Law I; Constitutional Law II  
PSC 352 - PSC 353 International Law; International Organization

PSC 121 (PSC 129) American National Government and Politics (or Honors), together with any of the following courses, constitutes a sequence:

- PSC 302 Environmental Politics and Policy
- PSC 303 Development of American State
- PSC 304 Judicial Process
- PSC 305 U.S. Congressional Politics
- PSC/AAS 306 African American Politics
- PSC 308 Politics of U.S. Public Policy
- PSC 309 Interest Group Politics
- PSC 311 American Political Parties
- PSC 313 Campaign Analysis
- PSC 314 Public Opinion and Electoral Behavior
- PSC 315 Media and Politics
- PSC 316 Supreme Court in American Politics
- PSC 323 Politics of the Executive Branch
- PSC 324 Constitutional Law I
- PSC 329/ HST 341 Modern American Presidency
- PSC 369 Global Migration
- PSC 374 Law and Society

PSC 123 Comparative Government and Politics, together with any of the following courses, constitutes a sequence:

- PSC 331 Politics of Canada
- PSC/LAS 333 Politics of Latin America
- PSC/LAS 334 Mexico & the United States
- PSC 335 Politics of East Asia

- PSC/AAS 341 Politics of Africa
- PSC 343 Politics of Western Europe
- PSC/MES 344 Politics of the Middle East
- PSC 346 Comparative Third World Politics
- PSC 347 Politics of Russia
- PSC 348 Politics and the Military
- PSC/MES 349 Politics of Iran
- PSC 356 Political Conflict
- PSC/MES 366 Representations of the Middle East
- PSC 369 Global Migration
- PSC 387 Ethnic Conflict
- PSC 388 Politics of Globalization
- PSC/SAS 389 Politics of India
- PSC/MES 391 Revolutions in the Middle East
- PSC/MES 392 Sociology of Islamic Fundamentalism
- PSC/MES 393 Middle Eastern Political Systems
- PSC/MES 394 History of Islamic Political Thought
- PSC/MES 395 Democratization in the Muslim World

PSC 124 (PSC 139) International Relations (or Honors), together with any of the following courses, constitutes a sequence:

- PSC/MES/REL/JSP 342 Religion and Politics in the Israeli-Palestinian Conflict
- PSC 348 Politics and the Military
- PSC 350 Problems in International Relations
- PSC 352 International Law
- PSC 353 International Organization
- PSC 354 Human Rights and Global Affairs
- PSC 355 International Political Economy
- PSC 356 Political Conflict
- PSC 357 U.S. Foreign Policy
- PSC 359 Foreign Policymaking
- PSC/PHI 363 Ethics and International Relations
- PSC/AAS 364 African International Relations
- PSC/AAS 365 International Political Economy of the Third World
- PSC/MES 367 Oil, Water, and War
- PSC 369 Global Migration
- PSC 388 Politics of Globalization
- PSC 396 European Integration
- PSC 397 Realism and Power Politics in IR
- PSC 398 How the U.S. Became a Great Power

PSC 125 Political Theory, together with any of the following courses, constitutes a sequence:

- PSC 307 Politics of Citizenship
- PSC 371 Democratic Theory and Politics
- PSC 373/PHI 317 Political Philosophy: The Social Contract and Its Critics
- PSC 375 Philosophy of Law
- PSC 378 Power and Identity
- PSC 382/PHI 417 Contemporary Political Philosophy
- PSC 385 Rationality and Politics

All PSC courses

#### PSYCHOLOGY

All PSY courses except PSY 223, 252, 323, 324, 334

PSY 205 (or PSY 209), Foundations of Human Behavior (or Honors) and either PSY 274 or PSY 335 or PSY 336 or PSY 337 constitute a sequence.

#### SOCIOLOGY

SOC 101- SOC 102 Introduction to Sociology; Social Problems

SOC 101-SOC/WGS 248 Introduction to Sociology; Ethnic Inequalities and Intergroup Relations

SOC 101-SOC/WGS 281 Introduction to Sociology; Sociology of Families

All SOC courses.

#### SOCIAL SCIENCE

All SOS courses.

#### SOUTH ASIAN STUDIES

SAS/ANT/WGS 324 Modern South Asian Cultures  
SAS/HST 328 Ancient and Medieval India  
SAS/HST 329 Making of Modern India  
SAS/HST 375 British Empire

#### WOMEN'S AND GENDERS STUDIES

All WGS courses cross-listed with ANT, ECN, GEO, HST, PSC, PSY, & SOC in addition to the following:

WGS 201 Transnational Feminist Studies  
WGS 310 Feminist Inquiries (when appropriate, by petition)  
WGS/SWK 326 -WGS/SWK 328 Persons in Social Contexts; Human Diversity in Social Contexts  
WGS/CFE 362 Youth, School and Popular Culture  
WGS 400 Selected Topics (when appropriate, by petition)  
WGS 410 Advanced Studies in Feminist Thought (when appropriate, by petition)  
WGS/CRS 414 Gender & Communication  
WGS/CFE 444 Schooling & Diversity  
WGS 490 Independent Study (when appropriate, by petition)

#### OTHER SCHOOLS AND COLLEGES

\*Apply as Non-Arts & Sciences credit

#### SCHOOL OF EDUCATION

\*EDU 203 Study of Elementary & Special Education Teaching  
\*PPE 435 Introduction to Sports Psychology  
\*SPE 311 Perspectives on Disabilities

#### MARTIN J. WHITMAN SCHOOL OF MANAGEMENT

\*LPP 255 Introduction to the Legal System

#### DAVID B. FALK COLLEGE OF SPORT AND HUMAN DYNAMICS

\*SWK 314/315 Social Welfare Policy and Services I, II  
SWK/WGS 326 -WGS/SWK 328 Persons in Social Contexts; Human Diversity in Social Contexts

#### SUNY COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY

EST 390 Social Processes and the Environment

#### INTERDEPARTMENTAL SEQUENCES IN THE SOCIAL SCIENCES

In addition to the departmental sequences indicated on previous pages, the following interdepartmental sequences may also be used to fulfill the requirement for a sequence in the Social Sciences.

AAS/ANT 112-AAS 202 Intro to African Amer Stud in Social Sciences; Caribbean Society Since independence

AAS/ANT 112- Introduction to African American Studies in Social Sciences; Comparative

AAS/SOC 254 Study of American Ethnic Communities

ANT 111-MAX 123 Introduction to Cultural Anthropology; Critical Issue for US

ANT 111-MAX 132 Introduction to Cultural Anthropology; Global Community

ANT 111-WGS 201 Introduction to Cultural Anthropology; Transnational Feminist Studies

ANT 121-GEO 272 Peoples and Cultures of the World; World Cultures

ANT 121-MAX 123 Peoples and Cultures of the World; Critical Issues for US

ANT 121-MAX 132 Peoples and Cultures of the World; Global Community

ANT 121-WGS 201 Peoples and Cultures of the World; Transnational Feminist Studies

ANT 141-ANT/HST 145 Introduction to Archaeology and Prehistory; Introduction to Historical Archaeology

ECN 101-MAX 123 Introductory Microeconomics; Critical Issues for the United States

ECN 203-MAX 123 Economic Ideas & Issues; Critical Issues for the US

ECN 203-MAX 132 Economic Ideas & Issues; Global Community

GEO 171-MAX 132 Introduction to Human Geography; Global Community

GEO 272-MAX 132 World Cultures; Global Community

GEO 273-MAX 132 World Political Economy; Global Community

HST 101-MAX 123 American History to 1865; Critical Issues for the United States

HST 102-MAX 123 American History Since 1865; Critical Issues for the United States

HST/MES 318 – MES/PSC 344 Introduction to the Middle East: Politics of the Middle East

MES/HST 318 – MES/PSC 344 Introduction to the Middle East: Politics of the Middle East

PAF 101-ECN/WGS 258 Introduction to the Analysis of Public Policy; Poverty & Discrimination in America

PAF 101-GEO 203 An Introduction to the Analysis of Public Policy; Environmental Problems and Policy

PAF 101-MAX 123 Introduction to Analysis of Public Policy; Critical Issue for U.S.

PAF 101-PSC 121 129 An Intro to the Analysis of Public Policy; Amer Nat'l Govt and Politics (or Honors)

PAF 101-ECN 203 An Introduction to the Analysis of Public Policy; Economic Ideas and Issues  
 PAF 101-HST 102 An Introduction to the Analysis of Public Policy; American History Since 1865  
 PSC 121/129-HST 101 American National Government & Politics (or Honors); American History to 1865  
 PSC 121/129-HST 102 American National Government & Politics (or Honors); American History Since 1865  
 PSC 121/129-MAX 123 American National Government & Politics (or Honors); Critical Issues for the U.S.  
 PSC 123-ANT 121 Comparative Government and Politics; Peoples and Cultures of the World  
 PSC 123-GEO 105 Comparative Government and Politics; World Geography  
 PSC 123-GEO 272 Comparative Government and Politics; World Cultures  
 PSC 123-HST 316 Comparative Government and Politics; Europe Since the Second World War  
 PSC 123-MAX 132 Comparative Government and Politics; Global Community  
 PSC 124/139-ANT 121 International Relations (or Honors); Peoples and Cultures of the World  
 PSC 124/139-GEO 272 International Relations (or Honors); World Cultures  
 PSC 124/139-GEO 273 International Relations (or Honors); World Political Economy  
 PSC 124/139-MAX 132 International Relations (or Honors); Global Community  
 PSC 124/139-WGS 201 International Relations (or Honors); Transnational Feminist Studies  
 PSC 125-ECN 203 Political Theory; Economic Ideas & Issues  
 PSC 129-GEO 219 American Natl Government & Politics (Honors); Amer. Diversity & Unity (Honors)  
 PSC/MES 344- HST/MES 318 Politics of the Middle East: Introduction to the Middle East:  
 SOC 101-AAS/ANT 112 Intro to Sociology; Introduction to African American Studies in Social Sciences  
 SOC 101-SOC/AAS 254 Introduction to Sociology; Comparative Study of American Ethnic Communities  
 SOC 101-MAX 123 Introduction to Sociology; Critical Issues for the United States  
 SOC 101-MAX 132 Introduction to Sociology; Global Community

HONORS Course Sequences that meet the Divisional Perspectives Requirement  
 (available to students in the Honors Program only)

Any two 3-credit HNR prefix courses from the same division, for example:  
 Any 2-course combination of HNR 240, 340, or 440 including either taken twice  
 Any 2-course combination of HNR 260, 360, or 460 including either taken twice  
 Any 2-course combination of HNR 250 or 255, 350 or 355, or 450- 455, including either taken twice

A departmental honors course plus any other course in that department, for example:

- PSY 209 plus any PSY course (except 223, 252, 323, 324, 334)
- PSY 205 plus honors PSY 393
- HOA 105 or 106 honors plus any HOA course
- ETS honors plus any other ETS course
- Any ETS course plus any HNR 240 lit/writing course
- PHI 109 or PHI 209 plus any other PHI course  
 (PHI 109 and 209 already constitute a sequence)
- Any honors REL course plus any other REL course

AP credit plus any departmental honors course in the same department, for example:                    AP PSY plus honors PSY 393

A departmental course plus any honors course in a related area, for example:

- HOA 105 or 106 plus HNR 240 or HNR 440 arts topics;
- MAX 132 or PSC 124 plus HNR 360 Nations and States
- Any science course plus HNR 250 Linked Lenses: Science, Philosophy, and the Pursuit of Knowledge
- HNR 250 Seeing Light plus any AST or PHY course

## Critical Reflections

### THE CRITICAL REFLECTIONS ON ETHICAL AND SOCIAL ISSUES REQUIREMENT

Students are required to take two courses from the approved list that follows. These courses are designed to encourage students to think critically about social and ethical issues that are relevant to contemporary life. They are from a variety of departments and programs and will demonstrate the relevance of study in the liberal arts to gaining critical perspectives on aspects of contemporary society. Many of these courses may simultaneously be used to partially satisfy other Liberal Arts Core requirements.

Most of the courses that satisfy the Critical Reflections on Ethical and Social Issues Requirement promote the University's core value of diversity. They help students to reflect on the diversity of peoples, social groups and cultures that surround them in contemporary life. Many other courses in the Liberal Arts Curriculum outside those on the list of Critical Reflections courses also serve this goal.

### COURSES FOR THE CRITICAL REFLECTIONS REQUIREMENT

## AFRICAN AMERICAN STUDIES

AAS/ANT 112 Introduction to African American Studies in Social Sciences  
AAS 202 Caribbean Society Since Independence  
AAS 231 African American Literature to 1900: An Introduction  
AAS 232 African American Literature: Twentieth and Twenty-First Centuries  
AAS 233 The Caribbean Novel  
AAS 234 African Fiction  
AAS 235 African American Drama  
AAS/SOC 254 Comparative Study of American Ethnic Communities  
AAS/WGS 303 Black Women Writers  
AAS 305 African Orature  
AAS/PSC 306 African American Politics  
AAS 312 Pan Africanism  
AAS 331 The African American Novel: Twentieth and Twenty-First Centuries  
AAS/HST 333 African American History After 19th Century  
AAS 338 Creative Writing Workshop  
AAS/PSC 341 Politics of Africa  
AAS/SOC 353 Sociology of the African American Experience  
AAS/WGS 403 African/Caribbean Women Writers  
AAS/SOC 410 Seminar on Social Change  
AAS 433 The Harlem Renaissance: Literature & Ideology  
AAS 501 African American Sociological Practice, 1900-1945

## ANTHROPOLOGY

ANT/AAS 112 Introduction to African American Studies in Social Sciences  
ANT 185 Global Encounters: Comparing World Views and Values Cross Culturally  
ANT/REL 221 Morality and Community  
ANT 326 Africa Through the Novel  
ANT/GEO/WGS 367 Gender in a Globalizing World  
ANT/SAS/IRP 426 Cultures and Politics of Afghanistan and Pakistan  
ANT 431 Human Variation  
ANT/WGS 455 Culture and AIDS  
ANT 477 Culture and Conflict

## ART AND MUSIC HISTORIES

HOA 176 The Visual Arts of America  
HOA 360 Art and Identity  
HOA 377 Nineteenth Century American Art  
HOA 378 Twentieth Century American Art  
HOM 382 Music in Multicultural America  
HOM 419 Music and the Media  
HOM 453 Dance in American Culture  
HOM/WGS 473 Women, Rap and Hip-Hop Feminism  
HOM 482 Rise of Global Pop  
HOM 485 Contemporary Indigenous Soundscapes  
HOM/WGS 494 Music and Gender

## BIOLOGY

BIO/PHI 396/REL 359 Stem Cells and Society

## EARTH SCIENCES

EAR 106 Geohazards and Natural Disasters  
EAR 111 Climate change: Past & Future  
EAR 205 Water and the Environment

## ECONOMICS

ECN/WGS 258 Poverty and Discrimination in America  
ECN/WGS 325 Economics and Gender

## ENGLISH AND TEXTUAL STUDIES

ETS 145 Reading Popular Culture  
ETS 181 Class and Literary Texts  
ETS 182 Race and Literary Texts  
ETS 184 Ethnicity and Literary Texts  
ETS/WGS 192 Gender and Literary Texts

## FRENCH AND FRANCOPHONE STUDIES

FRE 407 French Libertine Fictions  
FRE 409 French Culture and Revolution  
FRE 412 French Women Writers  
FRE 417 "Impressions d'Afrique": Caribbean Gazes  
FRE 421 Francophone African Criticism

## GEOGRAPHY

GEO 171 Human Geographies  
GEO 272 World Cultures  
GEO 273 World Political Economy  
GEO 353 Geographies of Environmental Justices  
GEO 363 Cities of North America  
GEO/ANT/WGS 367 Gender in a Globalizing World  
GEO 372 Political Geography  
GEO 440 Race and Space  
GEO 563 The Urban Condition  
GEO 606 Development and Sustainability

## HISTORY

HST/MES 319 The Middle East in the Twentieth Century  
HST/AAS 333 African American History After 19th Century  
HST 341/PSC 329 The Modern American Presidency  
HST 342/PSC 327 Modern American Political Thought  
HST 347 Modern American Politics Through Fiction  
HST/QSX 348 Queering in the Middle Ages  
HST/WGS 349 U.S. Women's History Since the Civil War  
HST 362 Nazi Germany  
HST/LAS/WGS 371 Gender in Latin America  
HST/LAS/NAT 372 Race in Latin America  
HST/WGS 379 Gender, Race and Colonialism  
HST 383/PSC 326 Foundations of American Political Thought  
HST/QSX/WGS 389 LGBT History

## INTERNATIONAL RELATIONS

IRP/PSC 412 Global Governance  
IRP/ANT/SAS 426 Cultures and Politics of Afghanistan and Pakistan

## ITALIAN

ITA 434 Africa in Italian Literature

## JEWISH STUDIES PROGRAM

JSP/REL 337 Shoah: Responding to the Holocaust

## LATINO-LATIN AMERICAN STUDIES PROGRAM

LAS 335/ PSC 334 Mexico and the U.S  
LAS/LIT/WGS 343 Latina Feminist Theories  
LAS/ HST/WGS 371 Gender in Latin America  
LASHST/NAT 372 Race in Latin America  
LAS/SPA 463 Contemporary Latin American Theater  
LAS/SPA/WGS 475 Women, Myth, Nation in Latin American Literature  
LAS/SPA 481 Literature of Latinos in U.S.

## LESBIAN, GAY, BISEXUAL, TRANSGENDER STUDIES

QSX 111 Queer Histories, Communities and Politics  
QSX 112 Sexualities, Genders, Bodies  
QSX/HST 348 Queering in the Middle Ages?  
QSX/REL 357 Queerly Religious  
QSX/PSC 384 Sexuality and the Law  
QSX/HST/WGS 389 LGBT History  
QSX/SOC/WGS 456 LGBT Studies in Sociology

## LINGUISTICS

LIN 201 The Nature and Study of Language

## LITERATURE IN TRANSLATION

LIT/RUS 331 Russian Culture Through Fiction and Film  
LIT/LAS/WGS 343 Latina Feminist Theories

#### MAXWELL SCHOOL OF CITIZENSHIP AND PUBLIC AFFAIRS

MAX 123 Critical Issues for the United States  
MAX 132 Global Community

#### MIDDLE EASTERN STUDIES

MES/HST 319 The Middle East in the Twentieth Century  
MES/PSC 366 Representations of the Middle East

#### NATIVE AMERICAN STUDIES

NAT/REL 142 Native American Religion  
NAT/REL 347 Religion and the Conquest of America  
NAT/REL 348 Religion and American Consumerism  
NAT/HST/LAS 372 Race in Latin America

#### PHILOSOPHY

PHI 171 Critical Thinking  
PHI 172 Making Decisions  
PHI 191 Ethics & Contemporary Issues  
PHI 192 Introduction to Moral Theory  
PHI 209 Introduction to Moral Philosophy (Honors)  
PHI/WGS 297 Philosophy of Feminism  
PHI 343 Philosophy of Education  
PHI/PSC 363 Ethics & International Relations  
PHI 394 Environmental Ethics  
PHI/BIO 396/REL 359 Stem Cells and Society  
PHI/PSC 406 Citizenship from Modernity to Globalization (Offered only in Florence)  
PHI 411 Philosophies of Race and Identity  
PHI/PSC/WGS 413 Identity and Difference (offered only in Florence)  
PHI 493 Contemporary Ethical Issues  
PHI 593/REL 551 Ethics and Health Professions

#### POLITICAL SCIENCE

PSC/AAS 306 African American Politics  
PSC 314 Public Opinion and Electoral Behavior  
PSC/WGS 319 Gender and Politics  
PSC 324 Constitutional Law I  
PSC 325 Constitutional Law II  
PSC 326/HST 383 Foundations of American Political Thought  
PSC 327/HST 342 Modern American Political Thought  
PSC 329/HST 341 The Modern American Presidency  
PSC 334/LAS 335 Mexico and the U.S.  
PSC 339 Transitions to Democracy  
PSC/AAS 341 Politics of Africa  
PSC 352 International Law  
PSC 354 Human Rights & Global Affairs  
PSC/PHI 363 Ethics & International Relations  
PSC/MES 366 Representations of the Middle East  
PSC 371 Democratic Theory and Politics  
PSC 374 Law and Society  
PSC/QSX 384 Sexuality and the Law  
PSC 386/WGS/SOC 354 Gender, Militarism and War  
PSC 387 Ethnic Conflict  
PSC/PHI 406 Citizenship from Modernity to Globalization (offered only in Florence)  
PSC/IRP 412 Global Governance  
PSC/PHI/WGS 413 Identity and Difference (Offered only in Florence)

#### PSYCHOLOGY

PSY/WGS 329 Biopsychological Perspectives on Women's Health  
PSY 379 The Social Psychology of Stigma

#### PUBLIC AFFAIRS

PAF 101 An Introduction to the Analysis of Public Policy

## RELIGION

REL 106 What is Belief?  
REL 125 Religion and Sexuality  
REL/NAT 142 Native American Religion  
REL/ANT 221 Morality and Community  
REL 252 Religious Ethics and Social Issues  
REL/SAS 283 India's Religious Worlds  
REL 324 Religion and Storytelling  
REL 326 Religion and Film  
REL/JSP 337 Shoah: Responding to the Holocaust  
REL/NAT 347 Religion and the Conquest of America  
REL/NAT 348 Religion and American Consumerism  
REL/QSX 357 Queerly Religious  
REL 359/PHI/BIO 396 Stem Cells and Society  
REL/WGS/SAS 384 Goddesses, Women, and Power in Hinduism  
REL 395 Religions and the Natural Environment  
REL 551/PHI 593 Ethics and the Health Professions

## RUSSIAN

RUS/LIT 331 Russian Culture Through Fiction and Film

## SOCIOLOGY

SOC 102 Social Problems  
SOC/WGS 230 Intergroup Dialogue  
SOC/WGS 248 Ethnic Inequalities and Intergroup Relations  
SOC/AAS 254 Comparative Study of American Ethnic Communities  
SOC/WGS 281 Sociology of Families  
SOC 301 Contemporary Asian Americans  
SOC 305 Sociology of Sex and Gender  
SOC/AAS 353 Sociology of the African American Experience  
SOC/WGS 364 Aging and Society  
SOC/AAS 410 Seminar on Social Change  
SOC/WGS 433 Race, Class, and Gender  
SOC/QSX/WGS 456 LGBT Studies in Sociology

## SOUTH ASIAN STUDIES

SAS/REL 283 India's Religious Worlds  
SAS/REL/WGS 384 Goddesses, Women, and Power in Hinduism  
SAS/ANT/IRP 426 Cultures and Politics of Afghanistan and Pakistan

## SPANISH

SPA 453 Spanish Literature (20th Century)  
SPA 457 Narrative in Spain after 1940  
SPA/LAS 463 Contemporary Latin American Theater  
SPA 465 Literature and Popular Culture in Latin America  
SPA/WGS/LAS 475 Women, Myth, Nation in Latin American Literature  
SPA/LAS 481 Literature of the Latinos in U.S.

## WOMEN'S AND GENDER STUDIES

WGS 101 Introduction to Women's Studies  
WGS/ETS 192 Gender and Literary Texts  
WGS 201 Transnational Feminist Studies  
WGS/SOC 230 Intergroup Dialogue  
WGS/SOC 248 Ethnic Inequalities and Intergroup Relations  
WGS/ECN 258 Poverty and Discrimination in America  
WGS/SOC 281 Sociology of Families  
WGS/PHI 297 Philosophy of Feminism  
WGS/AAS 303 Black Women Writers  
WGS/PSC 319 Gender and Politics  
WGS/ECN 325 Economics and Gender  
WGS/SWK 326 Persons in Social Context  
WGS/SWK 328 Human Diversity in Social Contexts  
WGS/PSY 329 Biophysical Perspectives on Women's Health  
WGS/LIT/LAS 343 Latina Feminist Theories  
WGS/HST 349 U.S. Women's History Since the Civil War  
WGS 354 Gender, Militarism and War

WGS/CFE 362 Youth, Schooling & Popular Culture  
WGS/SOC 364 Aging and Society  
WGS/ANT/GEO 367 Gender in a Globalizing World  
WGS/LAS/HST 371 Gender in Latin America  
WGS/SAS/REL 384 Goddesses, Women, and Power in Hinduism  
WGS/HST/QSX 389 LGBT History  
WGS 395 Gender and Popular culture  
WGS/AAS 403 African/Caribbean Women Writers  
WGS/PSC/PHI 413 Identity and Difference (offered only in Florence)  
WGS/SOC 433 Race, Class and Gender  
WGS/CFE 444 Schooling & Diversity  
WGS 452 Feminism and Postcolonial Studies  
WGS/ANT 455 Culture and Aids  
WGS/SOC/QSX 456 LGBT Studies in Sociology  
WGS/HOM 473 Women, Rap and Hip-Hop Feminism  
WGS/LAS/SPA 475 Women, Myth, Nation in Latin American Literature  
WGS/HOM 494 Music and Gender  
WGS/AAS 512 African American Women's History

#### WRITING AND RHETORIC

WRT 255 Advanced Argumentative Writing  
WRT 301 Advanced Writing Studio: Civic Writing  
WRT 413 Rhetorics and Ethics  
WRT 423 African American Rhetoric  
WRT 424 Studies in Writing, Rhetoric, Identity  
WRT 440 Studies in the Politics of Language and Writing

OTHER SCHOOLS AND COLLEGES \*Apply as Non-Arts & Sciences Credit

#### SCHOOL OF EDUCATION

\*EDU 310/610 The American School  
\*SED 522 Study of Social Studies

#### DAVID B. FALK COLLEGE OF SPORT AND HUMAN DYNAMICS

\*CFS 367 Child and Family in Cross-Cultural Perspectives  
\*SWK 314 Social Welfare Policy and Services I  
\*SWK 315 Social Welfare Policy and Services II  
SWK/WGS 326 Persons in Social Context  
SWK/WGS 328 Human Diversity in Social Contexts

#### SCHOOL OF INFORMATION STUDIES

\*IST 443 Critique of the Information Age  
\*IST 456 Information Policy and Decision Making

#### MARTIN J. WHITMAN SCHOOL OF MANAGEMENT

\*LPP 467/767 Management and Ethics

Only Available For Students in the RENÉE CROWN HONORS PROGRAM

HNR 250 World Water  
HNR 260 Ethics in the 21st Century  
HNR 260/WGS 200 History of the Women's Suffrage Movement  
HNR 260 Interrogation: Engine of Justice?  
HNR 340/HNR 360/ANT 300 Folk Arts, Festival, and Public Display  
HNR 340/ HNR 360 Folk Art and Oral Traditions of India  
HNR 340 The Industrial Revolution and its Visual Culture  
HNR 340/HNR 360/ANT 300 Migrating Memories/Migrating Arts  
HNR 340 American Parsifal  
HNR 350 Linked Lenses: Science, Philosophy, and the Pursuit of Knowledge  
HNR 360 Welcome to Your Future  
HNR 360/HST 347 Modern American Politics Through Fiction

Note: Transfer and other credit are not accepted for the Critical Reflections Requirement except when defined in articulation agreements.

## Special Degree Offerings

For additional information on the following options, contact: Advising and Academic Support

Office:  
323 Hall of Languages  
Call: 315-443-3150  
E-mail: [casadvising@syr.edu](mailto:casadvising@syr.edu)

#### Options for Study in the College of Arts and Sciences.

There are two general options for study leading to the B.A. or B.S. degree for undergraduates in the College of Arts and Sciences: the Standard Program and the Selected Studies Program.

The Standard Program involves the Liberal Arts Core, a major, electives and, perhaps, a minor or an additional major. The first two years are devoted largely to work that satisfies requirements of the Liberal Arts Core. The major is chosen by the end of the second year.

The selected studies program offers the student an opportunity to develop a highly individualized curricular plan. This program, which can lead to the B.A. or the B.S. degree, is intended to meet individual needs. It provides considerable freedom in curricular planning, but also requires greatly increased responsibility on the part of the student. Each student in the selected studies program develops a four-year program of study based on academic goals. He or she is assisted by a faculty advisor who helps to formulate an academically sound curriculum. For additional information please see Selected Studies under Undergraduate Program Offerings.

#### Combined Programs

The College of Arts and Sciences offers combined programs of study with certain professional schools and colleges within the University. These programs lead to two degrees and require at least 30 credits beyond the minimal requirement for one degree and a total of at least 150 credits. This means that it generally takes five years (10 semesters) to complete a combined program. Specific requirements vary from program to program and are described under individual program headings. Students pursuing a combined program in the College of Arts and Sciences must complete all college requirements relevant to the chosen program of study. A minimum of 96 credits in the College of Arts and Sciences is required. For a general definition and requirements of a combined program and comparison with other kinds of programs, refer to the appropriate chart in the “Academic Rules and Regulations” section of this catalog.

A combined program in the College of Arts and Sciences is offered with the College of Engineering and Computer Science and results in the B.A. or B.S. in Arts and Sciences and the B.S. in Engineering.

#### Dual Enrollments

The College of Arts and Sciences offers dual enrollments in cooperation with certain professional schools and colleges within the University. These lead to a single degree jointly authorized and certified by the cooperating schools. The standards and procedures for admission vary and are described under individual headings. With careful course selection and planning, students are able to finish within four years (eight semesters) and within the 120-126 credits required for a degree. (For a general definition and requirements of a dual program and comparison with other kinds of programs, refer to the appropriate chart in the “Academic Rules and Regulations” section of this catalog.)

Dual enrollments in Arts and Sciences are offered only with the School of Education and the S.I. Newhouse School of Public Communications.

For the Dual program offered with S.I. Newhouse School of Public Communications:

Contact Rosanna Grassi, Associate Dean, S.I. Newhouse School of Public Communications, 315 Newhouse 3, 315-443-1908 or

For the College of Arts and Sciences, contact Advising and Academic Support, 323 Hall of Languages, 315-443-3150, [casadvising@syr.edu](mailto:casadvising@syr.edu)

Students in the College of Arts and Sciences who are dually enrolled in the S.I. Newhouse School of Public Communications receive the bachelor’s degree jointly awarded by both colleges.

Students complete the requirements for the B.A. degree or the B.S. degree from the College of Arts and Sciences, including at least 90 credits in Arts and Sciences coursework and an Arts and Sciences major, or a selected studies program approved by the dean of the College of Arts and Sciences. Students also satisfy requirements for a major in the S. I. Newhouse School of Public Communications, chosen from the professional fields of advertising; broadcast and digital journalism; graphic design; magazine; newspaper and online journalism; photography; public relations; or television, radio, and film. At least 122 credits, including electives, are required to graduate.

Students who wish to enroll in this program should request dual enrollment at the time of admission to the University, or they may consult the School of Public Communications about an intra-University transfer to the dual program during the first or sophomore year.

#### First-year students entering the dual program

Students entering the Arts and Sciences/Public Communications Dual Degree in their first year will be required to satisfy the core requirements for the dual degree by completing the requirements of the College of Arts and Sciences Liberal Arts Core.

Students entering the dual program after the first year and who are either singly enrolled in the College of Arts and Sciences or the S.I. Newhouse School of Public Communications

satisfy the core requirements for the dual degree by completing the requirements of the school or college in which they were originally singly enrolled. In either case, the College of Arts and Sciences is the home college.

#### Other Special Options

Arts and Sciences/Art

The special options degree program in arts and sciences/art is designed for students who wish to include studio arts in conjunction with studies in humanities and/or sciences. The option permits any major in the College of Arts and Sciences to be joined with studio arts work. The degree awarded at the completion of undergraduate study is a B.A. in the arts and sciences major with the supplementary designation “and art.” The degree is singly awarded by the College of Arts and Sciences.

#### Arts and Sciences/Music

This special options degree program provides the opportunity to combine any degree in the College of Arts and Sciences with advanced studies in music performance or music composition—studies that will be taken primarily in the Setnor School of Music. To be admitted to the special options degree program, students in the College of Arts and Sciences apply through the Department of Art and Music Histories before the beginning of the sophomore year. Prospective students for the music performance and music composition degree options must meet admissions requirements administered by the Setnor School of Music.

The degree awarded after completing undergraduate studies is a B.A. in the arts and sciences major with the supplementary designation, “with advanced studies in music performance/composition” (depending on the particular degree option). The degree is singly awarded by the College of Arts and Sciences. Completion of the major does not result in any professional or artistic certification by the Setnor School of Music or the College of Visual and Performing Arts.

#### Combined Bachelor’s/Master’s Degrees - Secondary Teacher Preparation Programs

School of Education contact: Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall. [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for a New York Teaching certification for grades 7-12 in English, mathematics, a science area, or social studies. It is an alternative to the existing undergraduate Arts and Sciences/Education dual programs in these areas, and an option that often takes less time and fewer credits than earning the entire master’s degree in education after completion of a general Arts and Sciences degree.

The combined bachelor’s/master’s teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master’s degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History(TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to graduate school. Each admission stage requires a 3.0 cumulative GPA and a 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

## Other Undergraduate Programs Of The College

#### Center for Innovative Learning (iLEARN)

Kandice L. Salomone, Director  
323 Hall of Languages, 315-443-1643

The center for Innovative Learning (iLEARN) of the College of Arts and Sciences supports a variety of innovative educational programs and undergraduate research activities in the College and its departments. It also serves as a clearinghouse for information about undergraduate research and other innovative learning opportunities, as well as a source of encouragement and support for their further development.

The center helps students complement traditional classroom and laboratory work with enhanced out-of-classroom learning experiences. These experiences represent active learning at its best, tapping students’ creativity, curiosity, and drive. These kinds of opportunities also enable students to apply their knowledge and skill to independent research and other scholarly projects that engage students with current issues, and give them the kinds of experiences helpful in making career choices. Students may choose to earn academic or experience credit.

Programs Offered:

- Undergraduate Research Program
- The Syracuse University Undergraduate Mock Trial Program
- Ruth Meyer Undergraduate Research Scholars Program

#### Funding Opportunities

iLEARN has funds available for use by Arts and Sciences undergraduate students, faculty, and departments/programs for eligible projects. Eligibility is dependent on a project's relevance to the types of educational activities listed in the mission statement. Inquiries should be made to the director of iLEARN.

#### English to Speakers of Other Languages

Contact: Margo Sampson, Languages, Literatures, and Linguistics, 340C H.B. Crouse, 315-443-9484.

Syracuse University offers a program in English to speakers of other languages (ESOL, ESL) for any student whose native language is not English. After taking the English Language Assessment Exam (ELAE) and receiving the results, students are recommended for courses at the intermediate or advanced level. At the intermediate level, the program integrates the four skills of speaking, listening, reading, and writing. At the advanced level, the program focuses on composition, reading and research paper writing. For undergraduate students these courses may substitute for courses in the Writing Program.

#### First Year Forum

Contact: Office of Curriculum, Instruction and Programs, 441 Hall of Languages, 315-443-1414

The First Year Forum is a one-credit course required of all new, first-year students in the college and aids with the transition from secondary school to college life, as well as deepens students' first-year intellectual experiences by providing a personal and less academically-specialized encounter with a faculty member. Each forum section consists of approximately 15 students, is led by a regular faculty member, and meets once a week for 8 to 9 weeks in the fall semester to share ideas, experiences and concerns, and topics of general interest. A focal point of the forum is the Milton First Year Lecture, which brings a nationally prominent speaker to campus to address the first-year students.

#### Renée Crown University Honors Program

Professor Stephen Kuusisto, Director

306 Bowne Hall, 315-443-2759

The Renée Crown University Honors Program is a selective, demanding, and rewarding program for outstanding students who seek intense intellectual challenge and are prepared to invest the extra effort required to meet that challenge.

It is marked by four distinguishing characteristics:

- heightened expectations;
- participation in a vibrant and active community of learners;
- intensity of intellectual experience; and
- Special intellectual opportunities and responsibilities.

The program is open to qualified students from all undergraduate majors at Syracuse University. Its requirements, supplemental to those of their majors, stipulate that they demonstrate the attributes of depth, breadth, command of language, global awareness, civic engagement, and collaborative capacity.

Additional information can be found under Renée Crown University Honors Program in the catalog under Academic Offerings, Other Programs.

#### Soling Program

Contact: Office of Curriculum, Instruction and Programs, 441 Hall of Languages, 315-443-1414

The Soling Program is an all-University program whose purpose is to foster creative and collaborative work across academic boundaries. The program focuses on problem-solving, experiential learning, and originality. Students often work as multidisciplinary teams to explore solutions to specific, real-world problems posed by the University or the community. Students from different colleges typically work on projects with broader applications than usually found in academic courses.

#### Undergraduate Research Program

Kandice L. Salomone, Director

323 Hall of Languages, 315-443-1643

The Undergraduate Research Program (URP), housed in the College of Arts and Sciences but open to qualified participants from other colleges, exists to provide non-classroom, credit-bearing educational opportunities to undergraduate students. Interested qualified students work closely with Arts and Sciences faculty members in faculty-generated research projects, other projects representing the faculty member's academic interests, learning environments provided by professionals affiliated with the College of Arts and Sciences, or eligible off-campus internships with an identified Arts and Sciences advisor. The program features the apprenticeship model, and students gain firsthand experience in creative and investigative academic processes, translate theory

into practice, explore the cutting edges of particular disciplines, develop closer working relationships with faculty members, and enhance their own career and educational credentials.

#### FACULTY PARTICIPATION

The program offers Arts and Sciences faculty members a chance to extend and expand the character of their teaching in the undergraduate context, to work closely with self-selecting, highly motivated students, to attract excellent students to continued study in their particular field of study, and to open both internal and external funding possibilities by way of undergraduate involvement in their work. Faculty member are invited to propose projects to the Director. Individual projects may extend beyond a semester in length as appropriate. The character and requirements of these projects, as well as the number of credits involved, vary greatly, since they come from across the disciplines of the College of Arts and Sciences, and sometimes from other colleges as well. The common criterion for all, however, is appropriateness to an educational credit-bearing experience for qualified undergraduate students.

Syracuse University Abroad  
Margaret Himley, Associate Provost for International Education and Engagement  
106 Walnut Place, 315-443-9416

Syracuse University Abroad (SU Abroad) offers undergraduate and graduate students the opportunity to study, research, and intern abroad. Ranked among the top quality study abroad programs in the U.S., SU Abroad has centers in eight locations - London, Florence, Madrid, Strasbourg, Istanbul, Beijing, Hong Kong, and Santiago, Chile -- as well as faculty-led short term and World Partner semester options spanning another 45 locations worldwide. All center programs and over 40 summer programs are available to Syracuse and visiting students alike. These programs provide fully accredited Syracuse University courses for students in majors and disciplines across the College.

## Academic Offerings

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### Advocacy And Public Rhetoric Minor

Advocacy and Public Rhetoric  
Stephen Parks  
239 HBC  
sjparks@syr.edu  
315-443-1912

The undergraduate minor in rhetoric and public advocacy is an interdisciplinary program supported by the Department of Communication and Rhetorical Studies as well as the Writing Program in the College of Arts and Sciences and the program for the advancement of research on conflict and collaboration in the Maxwell School of Citizenship and Public Affairs.

The 18-credit minor explores the connections between advocacy, as a pragmatic practice for social change, and rhetoric, as a historical tradition of public argument, within national and local contexts. Students understand advocacy as a practice that includes public argument and reasoning in multiple contexts as well as how each context demands its own set of unique actions. In this way, the minor offers intellectual and practical tools.

The minor is designed to be of interest to those wishing to learn about the emergence of key public issues; the larger political, social, and economic framework out of which they emerge; and how different constituencies respond. You learn to assess competing interests within a public issue as well as engage in local, regional, and national advocacy campaigns. By the completion of the minor, you come to understand advocacy as a necessary part of citizenship.

#### Admissions requirements

The minor is open to all undergraduate SU students with a minimum GPA of 3.0.

#### Curricular requirements

Advocacy and Public Rhetoric Courses(9 credits):

Choose either ANT 483 or WRT 301 (which will have a community-based component) as well as two others from the following list:

- ANT 372 Intercultural Communications and Conflict(Every 4 years)
- ANT 475 Culture and Disputing (Every 2 Years)
- ANT 483 Social Movements (Every 2 years, Fall)
- CRS 225 Public Advocacy (Every Semester)
- CRS 553 American Public Address (Every Year)
- LIN 471 Dimensions of Bilingualism and Multilingualism (Every Year)
- PAF 101 Introduction to the Analysis of Public Policy (Every Semester)
- PAF 421 Mediation: Theory and Practice (IR)
- ANT 424 Negotiation: Theory and Practice (Yearly)
- PAF 424 Conflict Resolution in Groups (IR)
- PSC 328 American Social Movements (IR)
- PSC 354 Human Rights and Global Affairs (Every Year)

WRT 255 Advanced Argument (Every Year/Term)  
WRT 301 Civic Writing (Every Year)  
WRT 302 Writing in Digital Environments (Every Year)  
WRT 440 Issues in Language and Politics (Every Year)

Advocacy and Public Rhetoric - Subject Areas (9 Credits)  
Three courses in one category, unless prior approval from advisors.

#### LABOR

GEO 273 World Political Economy (Every Years)  
GEO 361 Global Economic Geography (IR)  
GEO 463 Geography of Homelessness (Even Years)  
GEO 573 Geography of Capital (Odd Years)  
HST 345 Workers, Organized Labor in The United States  
PSC 372 Marxist Theory (Every Year)

#### ENVIRONMENT

EST 361 History of the American Environmental Movement  
GEO 103 America and the Global Environment (Every Semester)  
GEO 203 Society and the Politics of Nature (IR)  
GEO 215 Global Environmental Change (Every Year)  
GEO 340 Geographies of Oil (Even Years)  
GEO 353 Geographies of Environmental Justice (Even Years)  
GEO 400 Geographies of Water (Taught in Even Years)  
GEO 415 Food: A Critical Geography (Even Years)  
GEO 356 Environmental Ideas and Policies (Every Year)  
GEO 374 Environment and Development in the Global South (Every Year)  
PAF 451 Environmental Policy (Every Year/Semester)  
PSC 302 Environmental Politics and Policy (Every Year/Spring)

#### URBAN COMMUNITIES

ANT 414 Cities, Spaces, and Power (Every 2 Years)  
CRS 535 Communication and the Community (Every Year)  
GEO 362 The European City (Every Year)  
GEO 563 The Urban Condition: Life and Struggle in the Contested City (IR)  
GEO 564 Urban Historical Geography (Odd Years)  
LIN 481 Global Communication through World Englishes (Every Year/Fall)  
MAX 132 Global Community (Every Year/Semester)  
PSC 354 Human Rights/Global Affairs (Every Year/Fall)  
SOC 351 Urban Poverty

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## African American Studies Major

Department Chair: Kishi Animashaun Ducre  
200 Sims Hall  
315-443-4302

Faculty Joan Bryant, Horace Campbell, Linda Carty, David Kwame Dixon, Kishi Animashaun Ducre, Janis A. Mayes, Micere Githae Mugo, Herbert Ruffin, S.N. Sangmpam, Renate Simson, Kheli R. Willetts, James G. Williams

This interdisciplinary department offers the opportunity for study, research, and community involvement in African American Studies and enables students to explore cultural, literary, historical, socioeconomic and other issues affecting African Americans as well as the link with continental Africa and the Caribbean areas. The department provides a major, leading to a B.A. degree, and a minor, both with two sub-areas of specialization, one in the social sciences and one in the humanities. Students seeking a B.A. degree in African American Studies must successfully complete AAS/ANT 112 and either AAS 231 or AAS 232 before formal admission to the major.

#### MAJOR REQUIREMENTS

Prerequisites (6 credits)

All students must successfully complete two of the following courses before formal admission to the program.

- AAS/ANT 112 Introduction to African American Studies in the Social Sciences and either
- AAS 231 African American Literature to 1900: An introduction, or
- AAS 232 African American Literature: 20th Century

## Major Courses (24 credits)

At least 18 of the 24 credits required for the major in African American Studies will be in courses numbered above 299. Six of the 24 credits may be chosen from AAS 202, 233, 234, 235, and 241. Six credits must be taken in the AAS core:

- AAS/HST 332 African American History, or
- AAS/HST 333 African American History and
- AAS 525 Research Methods in African American Studies

Students must also complete six credits in an area of specialization:

### Humanities Track

Choose one:

- AAS 331 The African American Novel: 20th Century
- AAS 433 The Harlem Renaissance: Literature and Ideology
- AAS 305 African Orature

Choose one:

- AAS 345/REL 345 African American Religious History, or
- AAS 361 Art of the Black World

### Social Sciences Track

- AAS 470 Internship in African American Studies

and one of the following:

- AAS/PSC 306 African American Politics
- AAS/PSC 341 Politics of Africa
- AAS/SOC 353 Sociology of the Black Experience

Twelve credits may be taken in additional advanced courses in African American studies chosen in consultation with the major advisor.

### Humanities Track

- AAS 300/400/500 Selected Topics in African American Studies
- AAS 302 Contemporary African American Theater
- AAS 303 Black Women Writers
- AAS 304 Workshop in African American Theater
- AAS 305 African Orature
- AAS 307 African Women Writers
- AAS 310 Elements of Production
- AAS 312 Pan Africanism
- AAS 327 A History of Southern Africa
- AAS 331 The African American Novel: 20th Century
- AAS/HST 332 African American History Before 1865
- AAS/HST 333 African American History After 1865
- AAS 338 Creative Writing Workshop
- AAS/REL 345 African American Religious History
- AAS 361 Art of the Black World
- AAS 367 Protest Movements and African American Artists: 19th and 20th Centuries
- AAS/HST 402 Slavery and Abolition
- AAS/WGS 403 African/Caribbean Women Writers
- AAS 408 Masters of American Black Music
- AAS 409 History of Jazz 1940-Present
- AAS 433 The Harlem Renaissance: Literature and Ideology
- AAS/HST 434 Underground Railroad
- AAS 465 The Image of Blacks in Art and Film
- AAS 470 Internship in African American Studies
- AAS 490/290 Independent Study
- AAS/WGS 512 African American Women's History
- AAS/WGS 513 Toni Morrison: Black Book Seminar

### Social Sciences Track

- AAS 300/400/500 Selected Topics in African American Studies

- AAS/PSC 306 African American Politics
- AAS 309 Race, Gender and Sexuality in African Diaspora
- AAS 312 Pan Africanism
- AAS/HST 326 Africa Since 1800
- AAS/PSC 341 Politics of Africa
- AAS/PSC 346 Comparative Third World Politics
- AAS/SOC 353 Sociology of the Black Experience
- AAS/PSC 364 African International Relations
- AAS/PSC 365 International Political Economy of the Third World
- AAS 380/480/580 International Courses
- AAS 390/490/590 Independent Study
- AAS/HST 402 Slavery and Abolition
- AAS 410 Seminar on Social Change
- AAS 416 Race, Crime, and Punishment
- AAS/SOC/WGS 427/627 New York City: Black Women Domestic Workers
- AAS/HST 434 Underground Railroad
- AAS/SOC/WGS 445/645 The Caribbean: Sex Workers, Transnational Capital, and Tourism
- AAS 470 Internship in African American Studies
- AAS 501 African American Sociological Practice, 1900-1945
- AAS/HST 510 Studies in African American History
- AAS 540 Seminar in African American Studies

#### STUDY ABROAD

Syracuse University Abroad offers Syracuse University credit bearing study options for students of African American studies in locations that include Tanzania, Kenya, Ghana, and Egypt. Two summer programs are also available. They are Entrepreneurship and Empowerment in South Africa and Paris Noir/Black Paris: Literature, Art, and Contemporary Life in Diaspora.

## African American Studies Minor

Chair, Kishi Animashaun Ducre  
 200 Sims Hall  
 315-443-4302

Faculty Omanii Abdullah, Joan Bryant, Horace Campbell, Linda Carty, David Kwame Dixon, Kishi Animashaun Ducre, Janis A. Mayes, Micere Githae Mugo, Herbert Ruffin, S.N. Sangmpam, Renate Simson, Kheli R. Willetts, James G. Williams

This interdisciplinary department offers the opportunity for study, research, and community involvement in African American Studies and enables students to explore cultural, literary, historical, socioeconomic and other issues affecting African Americans as well as the link with continental Africa and the Caribbean areas.

To complete a minor in African American Studies, students take 18 credits, of which 12 must be in courses numbered above 299. Six credits must be taken in the introductory prerequisites.

#### Introductory Prerequisites (6 credits)

##### Required:

AAS/ANT 112 Introduction to African American Studies in Social Sciences and  
 and choose 3 credits from:

- AAS 231 African American Literature to 1900: An Introduction, or
- AAS 232 African American Literature: 20th Century African American History (3 credits)

and choose 3 credits from:

- AAS/HST 332 African American History, or
- AAS/HST 333 African American History

#### Minor Credits (3 courses above 299)

Students must choose three subfield specialization courses from the two tracks below:

##### Humanities Track

- AAS 300/400/500 Selected Topics in African American Studies\*

- AAS 302 Contemporary African American Theater
- AAS 303 Black Women Writers
- AAS 304 Workshop in African American Theater
- AAS 305 African Orature
- AAS 307 African Women Writers
- AAS 310 Elements of Production
- AAS 327 History of Southern Africa
- AAS 331 The African American Novel: 20th Century
- AAS/HST 332 African American History Before 1865
- AAS/HST 333 African American History After 1865
- AAS 338 Creative Writing Workshop
- AAS 345/REL 345 African American Religious History
- AAS 361 Art of the Black World
- AAS 367 Protest Movements and African American Artists: 19th and 20th Centuries
- AAS 380/480/580 International Courses\*
- AAS 390/490/590 Independent Study\*
- AAS/HST 402 Slavery and Abolition
- AAS/WGS 403 African and Caribbean Women Writers
- AAS 408 Masters of American Black Music
- AAS 409 History of Jazz 1940-Present
- AAS 433 The Harlem Renaissance: Literature and Ideology
- AAS 465 The Image of Blacks in Art and Film
- AAS 470 Internship in African American Studies\*
- AAS 500 Seminar in African American Studies\*
- AAS/HST 510 Studies in African American History
- AAS/WGS 512 African American Women's History
- AAS/WGS 513 Toni Morrison: Black Book Seminar
- AAS 540 Seminar in African American Studies\*

#### Social Sciences Track

- AAS 300/400/500 Selected Topics in African American Studies\*
- AAS 305 African Orature
- AAS/PSC 306 African American Politics
- AAS 309 Race, Gender and Sexuality in African Diaspora
- AAS 312 Pan Africanism
- AAS/HST 325 Africa to 1800
- AAS/HST 326 Africa Since 1800
- AAS/HST 332 African American History Before 1865
- AAS/HST 333 African American History After 1865
- AAS/PSC 341 African Politics
- AAS/PSC 346 Comparative Third World Politics
- AAS/SOC 353 Sociology of the Black Experience
- AAS/PSC 364 African International Relations
- AAS/PSC 365 International Political Economy of the Third World
- AAS 367 Protest Movements and African American Artists
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- AAS/SOC 410 Seminar on Social Change
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- AAS/HST 434 Underground Railroad
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- AAS 470 Internship in African American Studies
- AAS 500 Seminar in African American Studies\*
- AAS 501 African American Social Practice, 1900-1945
- AAS/HST 510 Studies in African American History
- AAS 525 Research Methods in African American Studies
- AAS 540 Seminar in African American Studies

\*These courses may be counted toward the minor requirement only when the content of the course is within the subfield specialization.

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall mrsarno@syr.edu

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Anthropology Major

Department Chair: John Burdick  
209 Maxwell Hall  
315-443-2200

Faculty Douglas V. Armstrong, Hans C. Buechler, John S. Burdick, A.H. Peter Castro, Christopher R. DeCorse, Azra Hromadzic, Shannon A. Novak, Deborah Pellow, Lars Rodseth, Robert A. Rubinstein, Maureen T rudelle Schwarz, Theresa A. Singleton, John Marshall Townsend, Cecilia Van Hollen, Susan S. Wadley

Anthropology explores the entire range of human experiences in the past and present. Our department offers undergraduate courses covering the breadth of the discipline, including physical anthropology (the study of human evolution and biological variation); archaeology (the study of prehistoric and historic cultures through material remains); linguistics (the study of language - its structure, historic developments, and social aspects); cultural anthropology (the study of contemporary societies); and applied anthropology (the use of anthropological methods and theory to solve real-world problems). Ongoing research by our faculty and graduate students covers a broad array of topics, from slave settlements in Jamaica to women and development in India; from religious movements in Brazil to sustainable agriculture in Nepal; from forestry in Kenya to the Underground Railroad in Syracuse. Current research sites span the globe, including South and East Asia, South and North America, West and East Africa, the Middle East, Europe, and the Caribbean.

Undergraduate training in anthropology is useful in many fields, including education, international business, law, journalism, cultural resources management and public service. For students interested in future graduate studies in anthropology, our program offers a solid ground in theory, methods, ethics and practical application.

Undergraduate students are encouraged to explore anthropology not only through course work, but with direct involvement in laboratory research and field work. Our department has fully equipped archaeology and physical anthropology laboratories, providing a variety of research opportunities. A well-established archaeological field training program is offered each summer. Field experience in cultural anthropology is available through community internships, independent studies, and ongoing faculty research. We also recommend that students consider spending a semester or two in another country through the University's SU Abroad Program, as a way of enhancing their major with true cross-cultural experience. For information contact the Anthropology Department Undergraduate Director.

### MAJOR REQUIREMENTS:

The program, leading to a B.A. in anthropology, requires 33 credits in anthropology courses. Of these, 18 credits are taken in required courses and 15 are

electives.

Required Courses (18 credits)

- Introductory Courses: Three courses (9 credits)

Cultural Anthropology

- ANT 111 Introduction to Cultural Anthropology

Physical/Biological Anthropology

- ANT 131 Introduction to Biological Anthropology

Archaeology - either

- ANT 141 Introduction to Archaeology or
- ANT/HST 145 Introduction to Historical Archaeology

Area Focus and Regional Perspectives on Culture: One course (3 credits):

Completion of at least one course from the following list: ANT 318, 322, 323, 324, 325, 326, 382, 421, 426, 427, 428, 429, 446, 468, 471, 473, 523 and selected 400 and area courses by petition.

Anthropological Methods: One of the following courses (3 credits):

- ANT 433 Human Osteology
- ANT 442 Methods in Archaeology
- ANT 443 Field Methods in Archaeology
- ANT 444 Laboratory Analysis in Archaeology
- ANT 481 Ethnographic Techniques
- ANT 482 Life Histories and Narratives
- ANT 484 Social Movement Research Methods

Anthropological Theory: One course (3 credits):

- ANT 311 Anthropological Theory

Degree: Bachelor of Arts in Anthropology

Total Required Credits: 33

Electives (15 credits)

The student majoring in anthropology is free to enroll in any course offered by the Department of Anthropology as long as the prerequisites for that course are satisfied. All students are encouraged to enroll in elective courses that are of interest to them.

At least 12 of the 15 elective credits required must be at the 300 level and above.

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## Anthropology Minor

John Burdick, Chair  
209 Maxwell Hall  
315-443-2200

Faculty Douglas V. Armstrong, Hans C. Buechler, John S. Burdick, A.H. Peter Castro, Christopher R. DeCorse, Azra Hromadzic, Shannon A. Novak, Deborah Pellow, Lars Rodseth, Robert A. Rubinstein, Maureen T rudelle Schwarz, Theresa A. Singleton, John Marshall Townsend, Cecilia Van Hollen, Susan S. Wadley

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The minor in anthropology is designed to encourage students to pursue breadth in areas which complement their major. With the assistance of their faculty advisors, students can design a minor reflecting their interest in any of the subfields of anthropology: socio/cultural, biological/physical, archaeological, applied, and policy-related studies.

To complete the minor in anthropology, students take 18 credits. No more than 6 credits at the 100-200 level can count toward the minor.

Examples of possible courses leading to a minor in anthropology could include (but are in no way limited to) the following:

- Applied and Policy Related: ANT 111, 356, 414, 417, 445.
- Archaeology: ANT 141, 145, 348, 443, 445, 446.
- Social/Cultural: ANT 111, 185, 325, 373, 376, 472.
- Biological/Physical: ANT 131, 433, 434, 436, 465.

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## Anthropology Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Anthropology and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Applied Mathematics

Contact:

Advisors: S.P. Diaz, L. Kovalev, D. Zacharia

Faculty Uday Banerjee, Pinyuen Chen, Dan Coman, J. Theodore Cox, Steven Diaz, Helen M. Doerr, Jack E. Graver, Philip S. Griffin, Peter D. Horn, Tadeusz Iwaniec, Hyune-Ju Kim, Mark Kleiner, Leonid Kovalev, Loredana Lanzani, Graham J. Leuschke, Adam Lutoborski, Joanna O. Masingila, Terry R. McConnell, Claudia Miller, Jani Onninen, Evgeny Poletsky, Declan Quinn, Lixin Shen, John Ucci, Gregory Verchota, Andrew Vogel, William Voltermann, Stephan Wehrli, William Wylie, Yuan Yuan, Dan Zacharia

### Applied Mathematics Major

Two degrees in Applied Mathematics are offered: Bachelor of Arts and Bachelor of Science.

B.A. in Applied Mathematics is recommended for those students who are pursuing another quantitatively rich major which they consider their primary interest. The toolkit of applicable mathematical methods will enable them to advance further in their own field, whether in industry or in academia.

B.S. in Applied Mathematics is recommended for those students who intend to pursue a career in a field that requires advanced mathematical training, often beyond an undergraduate degree. Students who plan to pursue graduate study in applied mathematics should obtain the B.S. degree and consider taking at least one first-year graduate (600-level) course.

#### Preliminary and extra-disciplinary requirements for both B.A and B.S. degrees

1. Complete 18 credits in the following classes with no grade below a C: MAT 295, 296, 331, 397, and MAT 375 or CIS275. These courses are prerequisites for most upper-division courses. The following sequence is recommended: MAT 295 in the first semester; MAT 296 in the second semester; MAT 331, 397 in the third semester; and MAT 375/CIS275 when appropriate. However, a student with knowledge of trigonometry and a year of high school calculus may be able to enter the sequence at MAT 296 or even MAT 397; a student with less preparation may be advised to complete MAT 194 before beginning the calculus sequence. Students considering becoming mathematics majors are strongly encouraged to talk to a mathematics major advisor as soon as possible to ensure appropriate selection of courses.
2. Complete a course in computing such as CPS 196, ECS 102 or ECS 104. A similar course may be substituted with advisor's approval.
3. Complete two sequences of two approved science courses outside of the mathematics department, such as BIO 121-123, CHE 106(107)-116 (117), PHY 211(221)-212(222), ECN 203-302, ECN 203-311, ECS 221-222, ELE 231-232, or another, more advanced sequence with the approval of a mathematics major advisor. This requirement is waived if the student earns either (i) a minor in Applied Statistics, Biology, Chemistry, Computer Science, Economics, Engineering disciplines, Information Management & Technology, or Physics, or (ii) a major in one of natural sciences, engineering/technology disciplines, economics or finance.

#### B.A. Degree Requirements

In addition to the preliminary and extra-disciplinary requirements described above, the student must earn credit for the following courses, with a grade average of at least 2.0.

- Three required courses: MAT 414, MAT 532 (or MAT 531), and MAT 581.
- Two courses chosen out of one of the following groups:
  - Differential and Linear Equations: MAT 511, 517, 518, 682
  - Analysis: MAT 412, 511, 512, 513, 554
  - Probability and Statistics: MAT 521, 525, 526

With consent of the mathematics major advisor, these grouping may be altered.

- 3 credits of elective mathematics courses: MAT 412 or those MAT courses numbered 490 or higher. With prior approval of the student's major advisor, a mathematically rich 500+ level course in another department may be substituted for the mathematics elective.

#### B.S. Degree Requirements

Students interested in pursuing the B.S. degree in Applied Mathematics obtain, in advance, the approval of a mathematics major advisor and the department chair of a petition to the effect that the upper-division courses to be taken satisfy the requirement for a B.S. degree.

In addition to the preliminary and extra-disciplinary requirements described above, the student must earn credit for the following courses, with a grade average of at least 2.0.

- Differential Equations sequence: MAT 414 and MAT 517.
- Numerical Methods course: MAT 581.
- First course in each of the sequences in Table 1.
- Second course in one of the sequences in Table 1.

Table 1: sequences for B.S. in Applied mathematics

Sequence	First course	Second course
Linear Transforms	MAT 532 or 531	MAT 518 or 682
Analysis	MAT 412	MAT 511 or 512 or 513 or 554

9 credits of elective mathematics courses numbered 490 or higher. With prior approval of the student's major advisor, mathematically rich 500+ level courses in other departments may be substituted for the mathematics electives.

Distinction in Applied Mathematics is awarded by the Mathematics Department upon completion of a B.S. in Applied Mathematics with a minimum cumulative GPA of 3.4, a minimum GPA of 3.6 in mathematics (MAT) courses at the 300+ level, and either an A or A- in the Senior Seminar or a high-quality Honors Thesis. See the Mathematics Department undergraduate advisor for additional requirements.

## Applied Statistics Minor

### Applied Statistics

Contact:  
Pinyuen Chen, Advisor  
215 Carnegie Library  
315-443-1577  
pinchen@syr.edu

Faculty Pinyuen Chen, Peng Gao, Susan H. Gensemer, Vernon L. Greene, Chihwa (Duke) Kao, Hyune-Ju Kim, Yingyi Ma, Jan Ivar Ondrich, Jeffrey M. Stonecash, Raja Velu, Janet Wilmoth, Douglas A. Wolf, Larry L. Wolf, Yildiray Yildirim

To complete this minor, students take at least 18 credits from the distribution below. Courses are selected in consultation with a member of the Program Committee. With permission from the Program Committee, students receive credits toward the minor for other courses that have sufficient statistics content.

### Basic Statistics (3 credits)

- APM 395 Probability and Statistics for Engineering\*
- CIS 321 Introduction to Probability and Statistics
- ECN 521 Economic Statistics
- MAS 261 Introductory Statistics for Management
- MAT 122 Probability and Statistics for the Liberal Arts
- MAT 221 Elementary Probability and Statistics I
- MAT 521 Introduction to Probability and Statistics
- MFE 326 Probability and Statistics Methods for Engineers
- STT 101 Introduction to Statistics

### Regression Analysis (3 credits)

- ECN 522 Econometrics Methods
- MAS 466 Data Mining for Managers

### Additional Coursework (12 credits)

- APM 510 Statistical Analysis\*
- ECS 525 Probability for Engineers I
- ECS 526 Statistics for Engineers
- GEO 386 Quantitative Geographical Analysis
- MAT 122 Probability and Statistics for the Liberal Arts II
- MAT 222 Elementary Probability and Statistics II
- MAT 525 Mathematical Statistics
- MAT 526 Probability
- MAS 362 Decision Tools for Management
- MAS 477 Time-Series Analysis and Forecasting
- MAX 201 Quantitative Methods for the Social Sciences
- PSY 252 Statistical Methods II
- SOC 318 Introduction to Research

\*Courses with an APM prefix are offered by the SUNY College of Environmental Science and Forestry.

## Arabic Minor

## Arabic Minor

### Coordinator:

Rania Habib, Assistant Professor of Linguistics and Arabic, Coordinator of Arabic Program  
Dept. of Languages, Literatures, and Linguistics  
Syracuse University  
325 H. B. Crouse  
Syracuse, NY 13244  
Tel: 315-443-5490  
Fax: 315-443-5376

### Description:

Arabic is spoken by over 300 million speakers in 22 countries in the Middle East and North Africa. It is also an official language in 26 countries, the African Union, the Arab League, and the United Nations. It is the main medium of communication in business, government, and the media throughout the Arabic-speaking world. Currently, Arabic is designated as one of the critical languages by the federal government, which has been investing substantially in increasing the number of Americans with high proficiency in Arabic.

The increasing number of students enrolling in Arabic language, linguistics, and culture courses in Syracuse University in recent years and the high level of retention of those students in consecutive years demonstrate the great demand for the study of Arabic.

A minor in Arabic will prepare students to read, write, and communicate orally in Arabic at a functional level in an international setting, and to recognize and respond to cultural patterns of Arabic-speaking peoples. It will allow students majoring in other disciplines, e.g. Middle Eastern Studies, Political Science, Business, Journalism, International Relations, Public Relations, Translation, etc. to employ their knowledge of Arabic language and culture in their future careers. A minor in Arabic will increase students' attractiveness in the job market, especially with the present significant demand for Americans who can demonstrate high proficiency in Arabic.

### Admission:

Students should have completed the prerequisite ARB 102 or equivalent.

### Curriculum Requirements:

A Minor in Arabic requires a minimum of 20 credit hours including ARB 201 and ARB 202 and 12 credits at the 300 level or above. The courses in the table below are required. Previously approved upper-division Arabic language, literature, or culture courses through one of our Study Abroad centers can be considered as substitute to these courses, with prior approval by the Arabic coordinator. The courses ARB 201, ARB 202, ARB 301, and ARB 302 should be substituted with an equivalent level or higher. The ARB 336 (Arabic Cultures) course could be substituted with an upper-division Arabic language, literature, or culture course at the 300 level or above, provided that the language course is different from ARB 301 and ARB 302. The ARB 426 (Structure of Standard Arabic) course could be substituted with an equivalent course or an upper-division Arabic language, literature, or culture course at the 400 level or above.

ARB 201 - Arabic III (offered every fall semester)

ARB 202 - Arabic IV (offered every spring)

ARB 301 - Arabic V (offered every fall semester)

ARB 302 - Arabic VI (offered every spring semester)

LIN 426\* - Structure of Standard Arabic (offered once per year)

LIT 336\*\* - Arabic Cultures (offered once per year)

### Total Credits Required: 20

\* To be counted towards the Arabic Minor all homework and exams must be completed in the Arabic language.

\*\* To be counted towards the Arabic Minor at least two of the assigned assignments (the three critical essays and the short story) or just the final project must be completed in the Arabic language.

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## Art History Major

Theo Cateforis, Chair  
Suite 308 Bowne Hall  
315-443-4184

Romita Ray, Undergraduate Director  
Suite 308 Bowne Hall  
315-443-5030

Faculty Luis Castañeda, Laurinda Dixon, Wayne Franits, Jeehee Hong, Richard Ingersoll, Matilde M. Mateo, Alick McLean, Jonathan Nelson, Gary M. Radke, Romita Ray, Sascha Scott

The Department of Art and Music Histories was one of the first in the country dedicated to the study of the history of art and music from an interdisciplinary perspective. The department offers courses in most major periods of the history of visual and musical arts from ancient to postmodern times. The research and teaching specialties of the department's faculty include 19th- and 20th-century music, the history of opera, ethnomusicology, art and medicine in the early modern period, Italian Renaissance art, 17th-century Dutch painting, Asian Art, 19th- and 20th-century European art, and American and Latin American art. In view of the Department of Art and Music Histories interdisciplinary approach, courses examine the histories of art and music within the cultural, sociopolitical, economic, and religious contexts of the societies that created them.

Studies in the history of architecture are offered in association with the faculty of the School of Architecture (see program description under “History of Architecture” in this section of the catalog). Cooperative programs with the College of Visual and Performing Arts, the S.I. Newhouse School of Public Communications, and other divisions of the University allow for the inclusion of courses in studio art, music theory, performance and composition, and public communications.

Students who major in one of the department’s disciplines are strongly encouraged to take a foreign language and to study abroad.

#### Major Requirements:

The major in art history requires 30 credits in art history courses numbered above 299. Students in this specialized major may also include 6 credits of art studio work at any level in the required 30 credits. Students may petition to have up to 9 credits of appropriate courses in art history taken outside the department (non-HOA courses) count toward the art history major.

Additional requirements for the art history major follow:

#### Distribution Requirement

Course offerings in art history are divided into five broad categories: ancient/medieval; Northern/Italian Renaissance; Baroque/18th-century European; modern/American; and non-Western. Art-history majors are required to take at least one course in each of these five categories.

#### 500-level Course Requirement

Art history majors are required to take at least one course at the 500 level or above. 500-level or above courses are customarily open to advanced undergraduate majors as well as graduate students in the M.A. program in art history. Such courses offer more detailed study of particular fields within art history than those numbered at the 300 and 400 levels.

#### Senior Seminar Requirement

During the fall semester of their senior year, art history majors are required to successfully complete a senior seminar. This seminar explores the practical aspects of the discipline, paying particular attention to potential careers and professional research and writing.

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## Art History Minor

Theodore Philip Cateforis, Chair  
308 Bowne Hall  
315-443-4835

Romita Ray, Undergraduate Director  
308 Bowne Hall  
315-443-5030

Faculty Luis Castañeda, Laurinda Dixon, Wayne Franits, Jeehee Hong, Richard Ingersoll, Matilde M. Mateo, Alick McLean, Jonathan Nelson, Gary M. Radke, Romita Ray, Sascha Scott

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The minor in art history requires 18 credits of coursework. These courses must be upper-level HOA courses (300 level and above) in art history, drawn from the list of departmental offerings below. However, students may petition to have up to 6 credits of selected topics courses in art history (HOA 300 or HOA 400) count toward the minor. In addition, students may petition to have up to 6 credits of art history courses taken outside the department count toward the minor.

HOA 105/106 or HOA 276 are prerequisites but do not count toward the minor.

HOA 301 Origins of Western Art  
HOA 303/ANT 422 Etruscans and Romans  
HOA 304 Roman Art and Architecture  
HOA 311 Italian Medieval Art  
HOA 312 Romanesque Art  
HOA 313 Gothic Art  
HOA 340 Studies in Baroque Art\*

HOA 350 Art in 18th Century Europe  
 HOA 365/FRE 439 Art in France from Impressionism to Surrealism\*  
 HOA 366 Nineteenth and Twentieth Century Italian Art\*  
 HOA 412 The Gothic Spell  
 HOA 421 Early Renaissance Art  
 HOA 422 High Renaissance Art and Mannerism  
 HOA 423 Artistic Patronage of the Medici\*  
 HOA 425/ECS 441 Leonardo Artist and Engineer  
 HOA 426 Michelangelo's Italy  
 HOA 428 Research Problems in Italian Art  
 HOA 430 Northern Renaissance Art: 15th Century  
 HOA 431 Northern Renaissance Art: 16th Century  
 HOA 440/WGS 449 Women in Art  
 HOA 445 Baroque Art in Southern Europe  
 HOA 446 Baroque Art in Northern Europe  
 HOA 458 Art of Romanticism  
 HOA 461 Early 20th Century (European) Art  
 HOA 462 European Art Between the Wars  
 HOA 463 Modernism and Postmodernism  
 HOA 522 Botticelli\*  
 HOA 530 History of Printmaking  
 HOA 540 Seventeenth-Century Dutch Painting  
 HOA/HOM 541 Arts and Ideas in the 17th Century  
 HOA 556 Problems in Art History  
 HOA/HOM 560 Arts and Ideas in the 19th Century  
 HOA/HOM 575 Arts and Ideas in Contemporary Culture  
 HOA 576 Topics in American Art

(\*Denotes courses taught abroad through SU Abroad.)

## Arts And Sciences/Art

Contact: Prof. Gary Radke, Art and Music Histories  
 Suite 308 Bowne Hall  
 315-443-9198

To arrange a required portfolio review: Office of Recruitment, College of Visual and Performing Arts, 202 Crouse College, 315-443-2769.

Coordinator for College of Visual and Performing Arts: Sarah McCoubrey, Chair, Foundation Program, School of Art and Design, 102 Shaffer Art Building, 315-443-4613.

Art faculty: See "Faculty, College of Visual and Performing Arts, School of Art and Design"

The special options degree program in arts and sciences/art is designed for students who wish to include studio arts in conjunction with studies in humanities and/or sciences. The option permits any major in the College of Arts and Sciences to be joined with studio arts work. The degree awarded at the completion of undergraduate study is a B.A. in the arts and sciences major with the supplementary designation "and art." The degree is singly awarded by the College of Arts and Sciences.

### REQUIREMENTS

Under no circumstances will students be permitted to enter this special program after they have completed the first semester of their sophomore year. A portfolio is required for admission into the program.

#### Arts and Sciences Requirements

At least 90 credits must be completed in the College of Arts and Sciences (including the arts and sciences core, usually 60 credits). Students also complete an arts and sciences major (usually 30 credits) and 6 credits of upper-division art history.

#### School of Art and Design Requirements

The 30-credit option involves 15 credits of introductory design, drawing, and painting, followed by 15 elective credits in painting, drawing, fiber arts, ceramics, and/or sculpture.

Basic Design	FND 115, FND 117	6
Drawing	FND 113, FND 114	6
Painting	PTG 203, PTG 204	3
Studio arts electives		15

All FND (Foundation) course requirements (12 credits) must be completed within the first 3 semesters of enrollment in the program. Moreover, students must complete at least 9 credits of their 12-credit FND requirements BEFORE they will be allowed to enroll in upper-level courses.

There is no provision for advanced work in non-studio areas of the School of Art and Design, leading to degrees such as the B.F.A. or B.L.D.

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## Arts And Sciences/Music Major

Program contact: Theodore Cateforis, Director of Undergraduate Studies for Music History and Cultures, Department of Art and Music Histories, 308 Bowne Hall, 315-443-4835

Arts and Sciences faculty: See faculty listings under individual programs.

Music faculty: See "Faculty, College of Visual and Performing Arts, School of Music"

This special options degree program provides the opportunity to combine any degree in the College of Arts and Sciences with advanced studies in music performance or music composition—studies that will be taken primarily in the Setnor School of Music. To be admitted to the special options degree program, students in the College of Arts and Sciences apply through the Department of Art and Music Histories before the beginning of the sophomore year. Prospective students for the music performance and music composition degree options must meet admissions requirements administered by the Setnor School of Music.

The degree awarded after completing undergraduate studies is a B.A. in the arts and sciences major with the supplementary designation, “with advanced studies in music performance/composition” (depending on the particular degree option). The degree is singly awarded by the College of Arts and Sciences. Completion of the major does not result in any professional or artistic certification by the Setnor School of Music or the College of Visual and Performing Arts.

### Lower-Division Requirements

Students in the special options degree program in arts and sciences/music are required to complete the Liberal Arts Core Curriculum of the College of Arts and Sciences in their first and sophomore years (normally 54-60 credits). In addition, students must fulfill the following requirements:

#### Music Skills (up to 6 credits required)

Students must acquire competency in basic music theory by completing MTC 145/146 with a grade of C or above.

Introduction to Music history in its social and cultural contexts (6 credits).

Students are required to successfully complete two courses from the following list:

- HOM 165 Understanding Music I
- HOM 166 Understanding Music II
- HOM 195 Performance Live
- HOM 266 European Music Before 1750
- HOM 267 European Music 1750-1914
- HOM 268 European and American Music Since 1914
- HOM 285 Introduction to World Music

### Advanced Studies in Music and Upper-Division Requirements

At the upper-division level, students pursue an arts and sciences degree (normally 30 credits) along with advanced studies in music performance, music industry, or music composition (26-30 credits).

Students should note that certain upper-division courses require MTC 245,246 as a prerequisite. Students who wish to take these courses should begin their music theory sequence with MTC 145,146.

MTC 147,148 or MTC 247,248 Ear Training 2  
HOM 385 Structure and Meaning in World Music 3

Students will continue their advanced studies in music by earning 15-19 additional credits in either a music performance or music composition concentration. Other types of music concentrations are also possible with approval by the Setnor School of Music faculty and may be undertaken only under the supervision of a faculty advisor.

In addition to the requirements below, students must participate in a Syracuse University performing ensemble for at least 6 semesters.

#### Music Performance (17 credits)

Six semesters of private lessons in principal performance (1 credit each; 6 credits total).

Extended lessons (2 credits each) are optional and may be taken only with approval.

CTG 545 Basic Conducting (2 credits)

Three courses from the following

- MTC 545 Counterpoint (3 credits)
- MTC 546 Analysis of Contemporary Music (3 credits)
- HOM courses numbered above 299 (3 credits each)
- MHL courses numbered above 299 (3 credits each)

A performance of at least 10 minutes in the senior year either in Music Convocation or another appropriate venue.

Music Composition (17-19 credits)

Four semesters of composition

(1 credit each; 4 credits total)

HOM 268 European and American Music Since 1945 3

Four courses from the following:

- CTG 545 Basic Conducting (2 credits)
- MTC 535 Orchestration (3 credits)
- MTC 545 Counterpoint (3 credits)
- MTC 546 Analysis of Contemporary Music (3 credits)
- MTC 560 Electronic Music (3 credits) (may be repeated once)

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## Asian/Asian American Studies Minor

Asian/Asian American Studies

Contact:

Gina Lee-Glauser

207 Bowne Hall

leeglaug@syr.edu

315-443-2492

Faculty Tej K. Bhatia, Manan Desai, Susan Edmunds, Gareth J. Fisher, Ann Grodzins Gold, George Kallander, Norman A. Kutcher, Meera Lee, Amy Lutz, Yingyi Ma, Devashish Mitra, Deborah Pellow, Romita Ray, Farhana Sultana, Susan S. Wadley, Joanne P. Waghorne

More than two thirds of the Asian American population is comprised of immigrants whose personal and migration histories, educational achievements and attitudes have been molded by their Asian heritages and who continue to maintain connections with their homelands. This program was developed out of an awareness that we cannot understand Asian Americans without understanding the histories and cultures of Asia and vice versa, that we cannot understand contemporary Asia without understanding how American politics, capital, religion, culture and Asian American diasporas have shaped countries in that continent.

The minor will consist of 18 credits, 12 of which must be in advanced 300 or higher level coursework.

18 credits, 12 at the 300 or higher level

I. Required Courses (3 credits) :

- AAA 101 Introduction to Asian and Asian American Studies

II. One of these courses focusing on migration, ethnicity and/or race relations:

(lower division)

- ETS 184 Ethnicity and Literary Texts (relevant sections)
- SOC 248 Ethnic Inequalities and Intergroup Relations

(upper division)

- ANT/WGS/GEO 367 Gender in a Globalizing World (relevant sections)

- \*GEO 450 Geographies of Migration & Mobility
- PSC 369 Global Migration

III. At least one course focused on Asian Americans:

- \*AAA 300 Topics in Asian Diaspora: Trauma, Memory and History
- \*AAA 300 Contemporary Asian American Literature and Films
- LIN 481/681 Global Communication through World English
- MES 315 (when offered on Asian Americans) Ethnic Literatures and Cultures
- REL 487/687 Global Hinduism
- SAS/SOC 301 Contemporary Asian Americans

IV. At least one course focused on Asia

(lower division)

- REL/SAS/MES 165 Discovering Islam
- REL/SAS 185 Hinduism
- REL/SAS 186 Buddhism
- REL/SAS 283 India's Religious Worlds

(upper division)

- ANT/SAS/WGS 324 Modern South Asian Cultures
- ECN 365 The World Economy
- ETS 350 Reading Nation and Empire (relevant sections)
- HOA 391 Survey of Asian Art
- HOM 384/SAS 385: Music and Dance of India
- HOM 482 The Roots of Global Pop
- GEO 374 Environment & Development in Global South
- HST 320 Traditional China
- HST/SAS 329 Making of Modern India
- HST 388 Vietnam: Movies and Memoirs
- HST 393 East Asia and the Socialist Experience
- HST/SAS 394 Partition of India thru Films
- HST 395 Modern Japan
- HST 397 Modern Korea
- PSC 335 Politics of East Asia
- REL 385 Religion in Chinese Society
- REL/SAS/WGS/MES 465 MES/REL 626 Gender in Islam
- SAS/REL/WGS 384 Goddesses, Women and Power in Hinduism
- TRF 560 Bollywood and Beyond
- WGS 439 Women, Gender, and Violence in a Transnational Context

V. One more course from parts III or IV or one course in an Asian language (Chinese, Hindi/Urdu, Japanese, Korean)

\*New courses not yet regularized

## Biochemistry

Contact:

James C. Dabrowiak: 2-016D Center for Science and Technology

315-443-4601: jcdabrow@syr.edu

Samuel H. Chan: 342 Life Sciences Complex

315-443-3182: shchan@syr.edu

Faculty John M. Belote, Philip N. Borer, Mark S. Braiman, Carlos Castaneda, Joseph Chaiken, Arindam Chakraborty, Samuel H.P. Chan, John D. Chisholm, Daniel Clark, Heather Coleman, James C. Dabrowiak, Steve Dorus, Robert P. Doyle, Scott E. Erdman, Thomas P. Fondy, Anthony Garza, Paul Gold, Jerry Goodisman, Sarah Hall, James A. Hewett, Sandra J. Hewett, James Houglund, Bruce S. Hudson, James Kallmerten, Ivan V. Korendovych, Donna Korol, Timothy M. Korter, Katharine Lewis, Yan-Yeung Luk, Eleanor Maine, Mathew M. Maye, Melissa Pepling, Ramesh Raina, Karin Ruhlandt, John M. Russell, Robert Silver, Nancy I. Totah, Roy Welch, Jon Zubieta

Biochemistry is the study of the molecular basis of life. Lying at the interface between chemistry and biology, biochemistry is concerned with the structure

and interaction of proteins, nucleic acids, and other biomolecules as related to their function in biological systems. As one of the most dynamic areas of science, biochemistry has led to improved medicines and diagnostic agents, new ways of controlling disease, and greater understanding of the chemical factors that control our general health and well-being.

The bachelor of science degree in biochemistry is appropriate for students pursuing advanced degrees in biochemistry, molecular biology, and biophysics, as well as in the biomedical fields and health professions.

Before declaring the biochemistry major, students must earn at least 30 credits in courses graded A-F at Syracuse, and earn at least a grade of C+ in CHE 275 and BIO 326 or 327.

## B.S. DEGREE REQUIREMENTS

### Core Courses (48-60 credits)

- BIO 121: General Biology or Advanced Placement Biology Credit
- BIO 305 Integrative Biology Lab
- CHE 106/107 or 109/129 General Chemistry I/Lab
- CHE 116/117 or 119/139 General Chemistry II/Lab
- CHE 275/276 Organic Chemistry I/Lab
- CHE 325/326 Organic Chemistry II/Lab
- MAT 285 or 295 Calculus I
- MAT 286 or 296 Calculus II
- PHY 211/221 General Physics I/Lab
- PHY 212/222 General Physics II/Lab
- BIO 326 Genetics
- BIO 327 Cell Biology
- CHE 474 Structural and Physical Biochemistry
- BIO 475 or CHE/BCM 477 Biochemistry Lab or Preparation and Analysis of Proteins and Nucleic Acids Lab
- BCM 475 Biochemistry I
- BCM 476 Biochemistry II

### Elective Courses (At least 12 credits, including at least one instructional lab indicated with an asterisk)

- CHE 335 Chemical and Biochemical Analysis Lab\*
- CHE 346 Physical Chemistry I
- CHE 356 Physical Chemistry II
- BIO 409 Microbiology\*
- CHE 412 Metals in Medicine
- BIO 422 Bioinformatics for Life Sciences w/lab\*
- BIO 425 Cell and Development Biology Lab\*
- CHE 427 Organic Chemistry of Biological Molecules
- BCM 430 Journal Club in Molecular Pharmacology and Structural Biology
- BIO 447 Immunobiology
- BCM 460 Research in Biochemistry
- BIO 462 Molecular Genetics
- BIO 463 Molecular Biotechnology Lab\*
- BIO 464 Applied Biotechnology Lab\*
- BIO 465 Molecular Biology Lab\*
- BCM 484 Biomolecular Modeling w/lab\*
- BIO 501 Biology of Cancer
- BIO 503 Developmental Biology
- CHE 546 Molecular Spectroscopy and Structure
- CHE 575 Organic Spectroscopy

If both BIO 475 and CHE/BCM 477 are taken, one may count toward the 12-credit elective requirement, thereby also meeting the instructional lab requirement.

BCM 460 counts once (up to 3 credits) toward elective requirement, but does not count as an instructional lab course.

## RECOMMENDED ELECTIVES

### Preparation for Graduate School in a Department of Biology, Biochemistry, or Molecular Biology

- BIO 409 Microbiology
- CHE 412 Metals in Medicine
- CHE 427 Organic Chemistry of Biological Molecules
- BCM 430 Journal Club in Molecular Pharmacology and Structural Biology
- BIO 447 Immunobiology

- BCM 460 Research in Biochemistry
- BIO 462 Molecular Genetics
- BIO 463 Molecular Biotechnology Lab
- BIO 464 Applied Biotechnology Lab
- BIO 465 Molecular Biology Lab
- BCM 484 Biomolecular Modeling w/lab
- BIO 501 Biology of Cancer
- BIO 503 Developmental Biology

#### Preparation for Graduate School in a Department of Chemistry

- CHE 335 Chemical and Biochemical Analysis Lab
- CHE 346 Physical Chemistry I
- CHE 356 Physical Chemistry II
- CHE 412 Metals in Medicine
- CHE 427 Organic Chemistry of Biological Molecules
- BCM 430 Journal Club in Molecular Pharmacology and Structural Biology
- BCM 460 Research in Biochemistry
- BIO 465 Molecular Biology Lab
- BCM 484 Biomolecular Modeling
- CHE 546 Molecular Spectroscopy and Structure
- CHE 575 Organic Spectroscopy

#### Preparation for Health Professions (M.D., D.D.S., D.V.M.)

- BIO 409 Microbiology
- CHE 412 Metals in Medicine
- BIO 447 Immunobiology
- BCM 460 Research in Biochemistry
- BIO 462 Molecular Genetics
- BIO 465 Molecular Biology Lab
- BIO 501 Biology of Cancer
- BIO 503 Developmental Biology

#### Preparation for Technical Careers in Pharmaceutical or Biotechnical Industry

- CHE 335 Chemical and Biochemical Analysis Lab
- CHE 412 Metals in Medicine
- BIO 409 Microbiology
- CHE 427 Organic Chemistry of Biological Molecules
- BCM 430 Journal Club in Molecular Pharmacology and Structural Biology
- BIO 447 Immunobiology
- BCM 460 Research in Biochemistry
- BIO 462 Molecular Genetics
- BIO 463 Molecular Biotechnology Lab
- BIO 464 Applied Biotechnology Lab
- BIO 465 Molecular Biology Lab
- BCM 484 Biomolecular Modeling w/lab
- BIO 501 Biology of Cancer
- BIO 503 Developmental Biology
- CHE 575 Organic Spectroscopy

#### DISTINCTION IN BIOCHEMISTRY

The biochemistry B.S. program encourages all of its students to participate in research through its BCM 460 course. For students whose research culminates in a written thesis, it is possible to graduate with Distinction in Biochemistry if the following requirements are met.

First, the student must have a transcript showing an overall cumulative GPA of 3.4, and must also have a minimum cumulative GPA of 3.4 in all natural sciences and mathematics courses taken at S.U.

Second, the student must have taken a minimum of 6 credits of BCM 460.

Third, before completion of the final semester at Syracuse University, the student must make an oral presentation (either poster or platform) based on his/her research, at one of the following: (1) the Syracuse University biology department Undergraduate Research Conference in April; or (2) an external conference sponsored by an outside (non-S.U.) educational institution with its own accredited 4-year biochemistry degree program; or (3) an external conference sponsored by a nationally-recognized scientific society with a biochemistry component (e.g. ACS, FASEB, Biophysical Society). A symposium

specifically designed for undergraduate researchers from multiple institutions and sponsored by a regional or local chapter of a national scientific society is understood to qualify as external, even if it is physically located at Syracuse University.

Fourth, the student is responsible for selecting the thesis reader from the list of faculty members in the Biochemistry Program and obtaining his/her consent to serve as a reader (see the proposal for a degree with distinction in Biochemistry).

For further information, contact the biochemistry major advisors.

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## Biology Major

### BIOLOGY major

Undergraduate Programs Director  
Scott E. Erdman  
Room 110 Life Sciences Complex  
seerdman@syr.edu, 315-443-3748.

Contact: Undergraduate Programs Secretary Deborah Herholtz  
114 Life Sciences Complex  
herholtz@syr.edu, 315-443-9139.

Faculty David M. Althoff, John M. Belote, Carlos Castaneda, Samuel H.P. Chan, Heather Coleman, Steve Dorus, Scott E. Erdman, Thomas P. Fondy, Douglas A. Frank, Jason D. Fridley, Jannice Friedman, Anthony Garza, Paul Gold, Sarah Hall, James A. Hewett, Sandra J. Hewett, Donna Korol, Katharine Lewis, Eleanor Maine, Susan Parks, Melissa Pepling, Scott Pitnick, Ramesh Raina, Surabhi Raina, Mark Ritchie, John M. Russell, Kari A. Segraives, Robert Silver, W. Thomas Starmer, Melody Troeger Sweet, Joseph T. Tupper, Roy Welch, Jason R. Wiles

Students majoring in biology establish a general background in the discipline through a series of first-year/sophomore-level core courses that preview the major sub-disciplines of biology. This introductory program is followed by courses that allow the student to focus on more advanced material.

The major in biology leads to either the B.A. or the B.S. degree. The B.S. degree is intended for students interested in graduate study in biological science or the health professions (medicine, dentistry, or veterinary medicine). In addition to biology requirements, students pursuing the B.S. degree in biology take general and organic chemistry, and mathematics through calculus. Students are also encouraged to gain practical experience and academic credit through the University Honors Program, the Community Internship Program, or departmental research. Students may also receive a B.S. in biology with emphasis on environmental sciences.

The B.A. degree is intended for students who wish to pursue technical or science-related careers that do not require a graduate or professional degree, or careers outside of biology in which a background in science may be useful, such as science writing, business, or law. Although the first-year/sophomore-level core biology course requirements for the B.A. and the B.S. degrees are similar, there are key differences for the B.A. in the first-year courses required and fewer additional courses in chemistry and mathematics are required relative to the B.S.

### MAJOR REQUIREMENTS

#### B.S. Degree Requirements (57 to 59 credits)

Departmental Requirements (38 credits) Students in the B.S. program complete the first-year/sophomore core curriculum (16 credits) plus an additional 22 credits of upper division coursework in Biology with a minimum of 6 of the 22 credits being laboratory credits. Students may complete these 6 credits through any combination of laboratory courses offered in Biology, except the combinations of BIO 316 and 317 Anatomy and Physiology I and II or BIO 463 Molecular Biotechnology and BIO 464 Applied Biotechnology. By petition, laboratory courses with significant biological relevance offered by other departments may also be counted toward the requirement. One upper division elective course must include a significant focus on communication skills experience and at least one upper division elective course must be taken in each of two distribution areas, Ecology/Evolutionary Biology and Cell/Molecular Biology.

#### Core Curriculum

- BIO 121 General Biology I and
- BIO 305 Integrative Biology Laboratory and
- BIO 326 Genetics and
- BIO 327 Cell Biology and
- BIO 345 Evolution and Ecology

To declare and complete the B.S. major in Biology, students must earn grades of C+ or better in any two of the four required core courses for the B.A. and B.S. majors – BIO 305, 326, 327 and 345.

#### Non-Departmental Requirements (19-21 credits)

The B.S. degree requires, in addition to completion of the Biology Department requirements, (1) two semesters of general or inorganic chemistry with laboratory; (2) one semester of organic chemistry with laboratory; (3) and one of the following two-course sequences in mathematics: two semesters of calculus (MAT 285/286 or MAT 295/296) or one semester of calculus (MAT 295) and a 300- to 500-level statistics course.

Students intending to enroll in an advanced program in the health professions (e.g., medical school) or a graduate program in biology will also need to take an additional semester in organic chemistry and two semesters of physics.

#### B.A. Degree Requirements (42-44 credits)

To declare and complete the B.A. major in Biology, students must earn grades of C+ or better in any two of the four required core courses for the B.A. and B.S. majors – Bio 305, 326, 327 and 345.

Students in the B.A. degree program complete the first-year/sophomore core curriculum:

- BIO 121, General Biology I and
- BIO 123, BIO 124 or in addition to the requirements below, any four credit course above the 300 level that includes a laboratory experience
- BIO 305, Integrative Biology Laboratory and
- BIO 326 Genetics
- BIO 327 Cell Biology
- BIO 345, Evolution and Ecology

and 12 credits of additional upper-division courses in biology which must include at least one 3-credit laboratory. Students also take two semesters of general (inorganic) chemistry with laboratories (8 credits), and either: (1) MAT 194; MAT 285; or (2) MAT 221 and either MAT 284 or MAT 285; or (3) one semester of organic chemistry with lab (5 credits).

Students with 8 credits of Advanced Placement may omit the introductory Biology courses BIO 121 AND BIO 123/124. Also, students may substitute any 4 credit upper division laboratory course for BIO 123/124 to fulfill the degree, however when doing so the course substituting cannot also count towards the upper division requirements.

#### ENVIRONMENTAL SCIENCES WITH B.S. IN BIOLOGY

(62 to 66 credits)

Students complete the first-year/sophomore core curriculum in biology (BIO 121,305,345), 6 credits of introductory earth science courses, an upper-division laboratory, the senior capstone seminar, plus 24 credits of upper-division courses, at least 15 of which are in biology; the remainder can be from geography, earth science, and civil engineering. In addition, 17 to 19 credits in cognate sciences and mathematics courses are required. To declare and complete B.S. major in Biology with Environmental Sciences Focus, students must earn grades of C+ or better in the two required core courses for the major – BIO 305 and 345.

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## Biology Minor

Contact: Deborah Herholtz, Undergraduate Programs Secretary  
114 Life Sciences Complex  
315-443-9139

Faculty David M. Althoff, John M. Belote, Carlos Castaneda, Samuel H.P. Chan, Heather Coleman, Steve Dorus, Scott E. Erdman, Thomas P. Fondy, Douglas A. Frank, Jason D. Fridley, Jannice Friedman, Anthony Garza, Paul Gold, Sarah Hall, James A. Hewett, Sandra J. Hewett, Donna Korol, Katharine Lewis, Eleanor Maine, Susan Parks, Melissa Pepling, Scott Pitnick, Ramesh Raina, Surabhi Raina, Mark Ritchie, John M. Russell, Kari A. Segraves, Robert Silver, W. Thomas Starmer, Melody Troeger Sweet, Joseph T. Tupper, Roy Welch, Jason R. Wiles

#### MINOR IN BIOLOGY

The minor in biology is an optional program of study that may be taken in addition to the recognized majors in the College. The minor may be appropriate for students wishing to augment majors such as psychology, engineering, chemistry, and illustration with a biological component.

General Requirement:

20 credits of coursework in biology, 12 credits of which must be at the 300-level or above. Students with 8 AP credits for Introductory Biology must take a minimum of 15 credits of graded courses for the minor.

Course Requirements:

BIO 121/123/124 General Biology I and II

Additional 300- to 500-level elective courses to meet the 20 credits must be chosen to augment the interest of the student.

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## Biology Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Biology and Secondary Science Education (Biology) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Biology (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Biophysical Science Major

Liviu Movileanu  
211 Physics Building  
314-443-8078  
[lmovilea@physics.syr.edu](mailto:lmovilea@physics.syr.edu)

Faculty John M. Belote, Mark Bowick, Samuel H.P. Chan, Scott E. Erdman, Martin B. Forstner, Kenneth Foster, Edward D. Lipson, M. Lisa Manning, M. Cristina Marchetti, Alan Middleton, Liviu Movileanu, Ramesh Raina, John M. Russell, Peter Saulson, Eric A. Schiff, Jennifer Schwarz, Roy Welch

The B.A. in biophysical science is designed to serve students with strong interests in physical and mathematical aspects of the life sciences. The signature of the program is an exceptionally broad training in physics, biology, and chemistry. There are excellent scientific and professional opportunities for students who have acquired this broad grounding; bioinformatics, proteomics, and cell signaling are examples of subfields that benefit from a broad background in biophysical science. In conjunction with the other elements of the liberal arts core, graduates of the program are very well prepared to pursue careers in many sectors of the economy. The major is also well suited to students interested in graduate work in the health professions or in the biophysical sciences.

### B.A. DEGREE REQUIREMENTS

The B.A. in biophysical science requires a minimum of 61 credits of classwork, including 55 credits of specified courses. 18 credits of upper-division coursework in biology and physics are required, as are 3 credits of upper-division laboratory work in biology or physics.

- BIO 121,123 General Biology
- PHY 101,102 Major Concepts in Physics
- CHE 106/107 and 116/117 General Chemistry/Lab

- MAT 285,286 Life Sciences Calculus
- PHY 211/221 and 212/222 General Physics/Lab
- CHE 275/276 Organic Chemistry/Lab
- BIO 326,327 Genetics and Cell Biology
- PHY 315 Biological and Medical Physics
- PHY 361 Modern Physics
- Upper-division biology electives
- Upper-division laboratory elective

#### Footnotes

1. Courses required for medical college admission; students who will apply to medical college must take CHE 325/326, in addition.
2. CHE 109/119 and CHE 129/139, Chemistry for Honors and Majors, may be substituted.
3. MAT 295,296, Standard Calculus, may be substituted (8 credits).
4. PHY 215,216, Physics for Honors and Majors, may be substituted.
5. BIO 355,407, 409, 422, 462, 463, 465, 475, 501, 503 and 565 are recommended upper-division biology electives.
6. Three credits of either a biology or a physics upper-division laboratory class, including experimental research, are required; the requirement for 6 elective credits of upper-division biology may be satisfied simultaneously.

## Biotechnology

### B.S Biotechnology

Contact: Ramesh Raina; 464 Life Sciences Complex  
(315) 443- 4546; raraina@syr.edu

Faculty David M. Althoff, Rebecca Bader, John M. Belote, Philip N. Borer, Mark S. Braiman, Arindam Chakraborty, Samuel H.P. Chan, Heather Coleman, Andria Costello Staniec, James C. Dabrowiak, Andrew L. Darling, Steve Dorus, Robert P. Doyle, Scott E. Erdman, Thomas P. Fondy, Martin B. Forstner, Jannice Friedman, Anthony Garza, Susan H. Gensemer, Jeremy L. Gilbert, Paul Gold, Sarah Hall, Julie M. Hasenwinkel, James H. Henderson, James A. Hewett, Sandra J. Hewett, Bruce S. Hudson, James Kallmerten, Donna Korol, George M. Langford, Katharine Lewis, Yan-Yeung Luk, Eleanor Maine, M. Cristina Marchetti, Patrick T. Mather, Mathew M. Maye, Moira A. McDermott, Alexander McKelvie, Jeff Meyer, Liviu Movileanu, Melissa Pepling, Ramesh Raina, Surabhi Raina, Dacheng Ren, Mark Ritchie, John M. Russell, Robert Silver, James T. Spencer, Michael B. Sponsler, Melody Troeger Sweet, Nancy I. Totah, Roy Welch, Jason R. Wiles, Jon Zubieta

Biotechnology is an interdisciplinary program that offers students an opportunity to take courses in biology, environmental sciences, chemistry, engineering, management, public policy and law that will be important for addressing biotechnology-related issues. This program will help students prepare for jobs in areas such as the biotech industry, health professions, pharmaceutical and agricultural industry, environmental conservation and research in academia. The program requires many of the same basic courses as the B.S. degree in Biology, with additional courses in engineering, management and public policy. Additionally, a variety of elective courses in biology, engineering, law, management and public policy can be used to fulfill the major requirements. A senior year capstone class (Biotechnology Seminar) and valuable industry internship are part of this major.

#### TOTAL CREDITS (57-66)

#### INTRODUCTORY BIOLOGY (4 credits)

- BIO 121 (Students with AP credits of Biology with laboratory may omit introductory courses)

#### CORE COURSES (9 credits)

- BIO 305 (3 credits)
- BIO 326 (3 credits)
- BIO 327 (3 credits)

To declare and complete the B.S. in Biotechnology, students must earn grades of C+ or better in any two of the three required core courses for the major – BIO 305, 326, and 327.

#### UPPER DIVISION REQUIREMENTS (Total 29 credits)

##### 1. Biotechnology courses (8 credits)

- BIO 463: Molecular Biotechnology (4 credits; 3 credits count towards lab)
- BIO 464: Applied Biotechnology (4 credits; 3 credits count towards lab)

##### 2. Bioengineering/Biomaterial Sciences (3 credits)

- BEN 468 (Biomaterial and Medical Devices; 3 credits)

##### 3. Public Policy/Management (6 credits)

- EEE 370 (Introduction to Entrepreneurship and Emerging Enterprises; 3 credits)
- ECN 301 (Intermediate microeconomics; 3 credits) (Note: ECN 203 is a prerequisite for ECN 301)

##### 4. Elective courses (6 credits)

Choose two of the following courses:

- ACC 201 (Introduction to Accounting; 3 credits)
- BEN 541 (Principles of Tissue Engineering; 3 credits)
- BIO 345 (Population Biology; 3 credits)
- BIO 355 (General Physiology; 3 credits)
- BIO 400 (Evolutionary Developmental Biology; 3 credits)
- BIO 409 (General Microbiology; 4 credits)
- BIO 422 (Bioinformatics for Life Scientists; 3 credits)
- BIO 424 (Comparative Vertebrate Biology; 4 credits)
- BIO 425 (Cell and Developmental Biology Lab; 3 credits)
- BIO 435 (Genetics Lab; 3 credits)
- BIO 447 (Immunobiology; 3 credits)
- BIO 448 (Evolutionary Medicine; 3 credits)
- BIO 455 (Physiology Lab; 3 credits)
- BIO 462 (Molecular Genetics; 3 credits)
- BIO 465 (Molecular Biology Lab; 3 credits)
- BIO 475 (General Biochemistry I; 3 credits)
- BIO 476 (General Biochemistry II; 3 credits)
- BIO 501 (Biology of Cancer; 3 credits)
- BIO 503 (Developmental Biology; 3 credits)
- BIO 565 (Cellular Physiology; 3 credits)
- BCM 484 (Biomolecular Modeling; 3 credits)
- BTC 401 (Molecular Biology Techniques; 3 credits)
- BPE\_420 (Bioseparations; 3 credits)
- BPE\_421 (Bioprocess Kinetics and Systems Engineering; 3 credits)
- BPE\_440 (Bioprocess and Systems Laboratory; 3 credits)
- BPE\_481 (Bioprocess Engineering Design; 3 credits)
- CHE 412 (Metals in Medicine; 3 credits)
- CHE 477 (Structural Biochemistry Lab; 3 credits)
- CIE 472 (Applied Environmental Microbiology; 3 credits)
- ECN 355 (Economics of Health and Medical Care; 3 credits)
- GEO 400 (Food: A Critical Geography; 3 credits)
- LPP 255 (Introduction to the Legal System; 3 credits)
- MAR 301 (Principles of Marketing for Non-Management Students; 3 credits)
- PAF 410 (Practicum in Public Policy; 3 credits)
- PAF 451 (Environmental Policy; 3 credits)
- PHI 393 (Contemporary Ethics; 3 credits)
- PSC 318 (Technology, Politics, and Environment; 3 credits)
- PAF 315 (Methods of Public Policy Analysis and Presentation; 3 credits)
- SHR 355 (Strategic Human Resource Management; 3 credits)

• In addition, other courses related to biotechnology from other departments (for example, Chemistry, Bioengineering, Physics, Psychology, Biomaterial Institute, Maxwell School, Law School, Whitman School, ESF and Upstate Medical University) can be used as elective courses by petitioning to the Biology Department.

SENIOR CAPSTONE SEMINAR COURSE (BIO 421; 3 credits) 3

INTERNSHIP/Independent Research (BIO 460; 0-4 credits)

This requirement can be fulfilled by a) completing an approved internship at a biotech-related company during spring and/or fall semester of junior or senior year or b) by completed an approved independent research in any of the biotech-related topics, including biology, chemistry, engineering, public policy, law or management. For example, if a student chooses to do independent research in biology, s/he can register for 3 credits of BIO 460 each semester. In addition, an approved internship at a biotech-related company over the summer after the junior year can be petitioned to fulfill this requirement.

MATH AND CHEMISTRY REQUIREMENTS (19-21 credits)

- CHE 106/107: General Chemistry I (4 credit hours)
  - CHE 116/117: General Chemistry II (4 credit hours)
  - CHE 275/276: Organic Chemistry I (5 credit hours)
- AND either
- MAT 285/286: Calculus I and II\* (6 credit hours total)
- OR
- MAT 295/296: Calculus I and II\* (8 credit hours total)
- OR

- MAT 285 or 295: Calculus I and a 300 level Statistics Course\* (6-7 credit hours total)

### Distinction in Biotechnology

Students may earn a B.S. in Biotechnology degree with Distinction by meeting the following requirements:

- An overall cumulative GPA of 3.4, and must also have a minimum cumulative GPA of 3.4 in courses taken to satisfy the Biotechnology major at S.U.
  - The student must have taken a minimum of 6 credits of BIO 460 Independent Research and four semesters of BIO 419 Jr./Sr. Thesis Seminar, plus BIO 495 Distinction Thesis.
  - Before completion of the final semester at Syracuse University, the student must make a presentation (either poster or oral) based on his/her research.
  - The student must also complete a written thesis judged to be of high quality
- 

## Chemistry Major

Chair: James Kallmerten, (interim chair), 1-014 Center for Science and Technology, 315-443-4109, Jkallmer@syr.edu

Faculty Philip N. Borer, Mark S. Braiman, Carlos Castaneda, Joseph Chaiken, Arindam Chakraborty, John D. Chisholm, Daniel Clark, James C. Dabrowiak, Robert P. Doyle, Jerry Goodisman, James Hougland, Bruce S. Hudson, Tara Kahan, James Kallmerten, Ivan V. Korendovych, Timothy M. Korter, Yan-Yeung Luk, Mathew M. Maye, Karin Ruhlandt, James T. Spencer, Michael B. Sponsler, Nancy I. Totah, Jon Zubieta

Chemistry, the science concerned with the composition, structure, properties, and reactions of matter, especially of atomic, elemental, and molecular systems, is taught through courses in analytical, biological, inorganic, organic, and physical chemistry and through direct participation in original research.

Undergraduate majors in chemistry may elect one of three programs, two leading to a B.A. degree, with an emphasis in either chemistry or biological chemistry, and one to the B.S. degree. Either B.A. degree program requires fewer credits in chemistry than the B.S. option, and yet provides a foundation in the discipline adequate for either immediate professional engagements or for graduate studies. Students studying for a B.S. degree in chemistry gain a more extensive background as they fulfill a broader range of requirements; they must file a petition with the department chair indicating their intent to secure the B.S. degree before it can be awarded.

Students interested in a B.S. degree in biochemistry should see the biochemistry section of this catalog.

For information about certification to teach chemistry at the secondary school level, see Education/Arts and Sciences (dual program) in this section of the catalog.

### B.A. DEGREE REQUIREMENTS

(Chemistry Track)

Requirements include 36 credits in chemistry core courses, 32 of which are taken in specific courses. Each student's course of study includes the following:

1. CHE 106,116 or CHE 109,119; CHE 107,117 or CHE 129,139; CHE 275,276,325,326,346,347,356,357; and CHE 335 or CHE/FSC 444.
2. At least 4 credits chosen from CHE 411,422,427,436,467,546,575 or selected graduate courses with the instructor's approval.
3. One year of calculus (MAT 285,286 or MAT 295,296) and PHY 211,212,221,222.

Students are encouraged to gain some research experience by enrolling in CHE 450, which may be substituted for a 3-credit course listed in (2) above by petitioning the department.

### B.A. DEGREE REQUIREMENTS

(Biological Chemistry Track)

Requirements include 21 credits from chemistry core courses, 6 credits from the list, (2) below, of approved biology/biochemistry core courses, and 9 additional credits from an approved list for a total of 36 required credits. Each student's course of study must include the following:

1. CHE 106,116 or CHE 109,119; CHE 107, 117 or 129,139; CHE 275,276,325,326,474.
2. BIO 475 or CHE 477/BCM 477 and BCM 475 .
3. At least 9 credits chosen from CHE 335, 411,412,422,427,436,467,546,575,CHE/FSC 444 or selected graduate courses with the instructor's approval.
4. One year of calculus (MAT 285,286 or MAT 295,296) and PHY 211,212,221,222.

Students are strongly encouraged to take BIO 326 and BIO 327 Genetics and Cell Biology. Students are also encouraged to take BIO 465 Molecular Biology Laboratory.

Students may also gain some research experience by enrolling in CHE 450, which may be substituted for a 3-credit course listed in (3) above, by petitioning the department.

### B.S. DEGREE REQUIREMENTS

At least 45 credits in chemistry are required for the B.S. degree. Each student's course of study should include the following:

1. CHE 106,116 or CHE 109,119; CHE 107, 117 or CHE 129,139; CHE 275,276,325,326, 346,347,356,357,411,422,450 (at least 3 credits);CHE 335 or CHE/FSC 444,CHE 474 or BCM 475.
2. At least 3 credits in a lecture course chosen from CHE 427,436,546,575 or selected graduate courses with the instructor's approval.
3. One year of calculus (MAT 295,296) and PHY 211,212,221,222.

If taken in an appropriate area of research, additional credit in CHE 450 beyond the 3 credits required in (1) above may be substituted for up to 4 laboratory credits with the department's approval.

#### DEGREE WITH DISTINCTION

Distinction in Chemistry is awarded by the chemistry department upon completion of the chemistry major and a high-quality chemistry thesis. The thesis will be evaluated and judged by a committee consisting of the research advisor and two other chemistry faculty members. Other requirements include a minimum cumulative GPA of 3.4 by the end of the senior year, and a minimum cumulative GPA of 3.4 in chemistry department courses. See Professor Totah for additional requirements.

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## Chemistry Minor

Chair: James Kallmerten (interim chair), 1-014 Center for Science and Technology, 315-443-4109, jkallmer@syr.edu

Faculty Philip N. Borer, Mark S. Braiman, Carlos Castaneda, Joseph Chaiken, Arindam Chakraborty, John D. Chisholm, Daniel Clark, James C. Dabrowiak, Robert P. Doyle, Jerry Goodisman, James Hougland, Bruce S. Hudson, Tara Kahan, James Kallmerten, Ivan V. Korendovych, Timothy M. Korter, Yan-Yeung Luk, Mathew M. Maye, Karin Ruhlandt, James T. Spencer, Michael B. Sponsler, Nancy I. Totah, Jon Zubieta

#### MINOR IN CHEMISTRY

The minor in chemistry is offered to provide students with a basic understanding of the structure and behavior of matter at the atomic and molecular level. Increasingly, the control of matter at the level of individual molecules is becoming the key ingredient in sweeping technological advances such as genetic engineering, micro and molecular electronics, advanced materials, and nanotechnology. A minor in chemistry offers a strong complement to major areas of study such as biology, physics, geology, psychology, engineering, pre-medicine, and pre-professional degree programs.

#### General Requirements:

To complete a minor in chemistry, students take 20 credits carrying a CHE or BCM prefix, including courses that meet requirements A and B below. No part of the minor requirements may be met with transfer or AP credits, nor with independent study (CHE 290, 490), research (CHE 450, BCM 460), or experience credits (CHE 470).

A. Lower-division courses must include either of the following groups: CHE 106/109, 107/129, 116/119, 117/139 (8 credits); or CHE 275/276 (5 credits).

B. Upper-division courses must include 12 credits of CHE and BCM courses numbered above 299, including at least one lecture course from among the group CHE 325, CHE 346, CHE 411; and at least one course with an instructional laboratory component. Examples of courses that satisfy the instructional laboratory requirement, and that mesh well with other requirements of the minor, are:

- CHE 326 Organic Chemistry Laboratory II
- CHE 335 Chemical and Biochemical Analysis with Lab
- CHE 347 Physical-Analytical Chemistry Laboratory
- CHE 422 Inorganic Laboratory Techniques
- CHE/BCM 477 Preparation and Analysis of Proteins and Nucleic Acids

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## Chemistry Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Chemistry and Secondary Science Education (Chemistry) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall mrsarno@syr.edu

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Chemistry (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and

Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Chinese Studies Minor

Chinese Studies  
Gareth J. Fisher, Director  
gfisher@syr.edu  
505 Hall of Languages  
315-443-5720

Faculty Gareth J. Fisher, Jeehee Hong, George Kallander, Norman A. Kutcher, Yingyi Ma, Edwin I.S. Van Bibber-Orr

### Minor Requirements

The minor requires 19 credits; 12 credits must be at the 300 level or above. Study abroad in one of the SU centers - in Beijing or Hong Kong - is highly recommended.

### Core Requirements (10 credits):

- One year of (Mandarin) Chinese language (the equivalent of Chinese 101 and 102) 8 credits
- HUM 403 China: Past, Present and Future ( Beijing or Hong Kong) 2 credits (or equivalent course in consultation with the Director of Chinese Studies).

### Critical Directions in Chinese Studies(6 credits):

Two courses chosen from:

HOA 392: Arts of China  
HOM/MES 386: Sounds of the Silk Road  
HST 320: Traditional China  
HST 321: Modern China  
REL 385: Religion in Chinese Society

### Other Requirements(3 credits):

One additional course with a China focus chosen from:

Offered in London through SU Abroad:

- PSC 300 China, Rise of a Superpower

Offered in Beijing through SU Abroad:

- ANT 403/HST 443: Culture, Confucianism, and East Asian Modernity
- COM 400: Chinese Media and Mass Communications
- ECN 300: China and the World Economy
- GEO 300 / IRP 300 / PSC 300: The Other China: Ethnic Minorities, Development & the Environment
- HST 300 / FLL 300: The Changing Faces of China
- GEO 300 / HST 300: Exploring Beijing: The Historical Geography of the Chinese Capital
- HST 413 China Encounters the West: Qing Dynasty to Early Republic
- IRP 431 Environment and Development in China
- PAI 515/PSC 431 China in Transition

Offered in Hong Kong through SU Abroad:

- BUA/HST/PSC 400.1: Culture, Business, and Political Economies of East Asia
- ECN 363: Economic Development of China
- LIT 300: Topics in Asian Cinema
- PSC 442 Democratization in East Asia
- PSC 425 Hong Kong in the World Political Economy
- REL 387: Confucianism & Buddhism in Everyday Asian Life

One (only) of these courses( listed below) may replace one course with a China focus (listed above):

- PSC 346 Comparative Third World Politics (when China is the focus)
- BUA/HST/PSC 400.1 Culture, Business, and Political Economies of East Asia (Hong Kong only)
- HOA 391 Survey of Asian Art
- HST 401 Research Seminar (SU Main campus only)
- LIT 382 Asian Cinema (Hong Kong only)
- PSC 442 Democratization in East Asia (Hong Kong only)
- Selected topics courses may be petitioned to count toward the minor.

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## Citizenship & Civic Engagement

Paul Hagenloh, Director  
 phagenlo@syr.edu  
 314-443-2210  
 145 Eggers

Faculty Kristi J. Andersen, Stuart I. Bretschneider, William D. Coplin, Carol Faulkner, Paul M. Hagenloh, Mary E. Lovely, Amy Lutz, Don Mitchell, Grant D. Reeher, Junko Takeda, Peter J. Wilcoxon

The Maxwell Program in Citizenship and Civic Engagement is an individually customized interdisciplinary plan of study for students who wish to connect the disciplinary focus of one of the traditional Maxwell/College of Arts and Sciences undergraduate degrees in the social sciences with the Maxwell tradition of dedication to persistent, committed involvement in the local, national, and international communities in which we live.

The program entails two majors: 1) one major chosen from the existing social-science disciplines within Maxwell (Anthropology, Economics, Geography, History, International Relations, Political Science, Policy Studies, and Sociology) or a related discipline outside of Maxwell that entails a substantial social-science focus; and 2) the Citizenship and Civic Engagement major, constructed by the student and his or her faculty advisors in a manner that brings the disciplinary tools gained in pursuit of the social-sciences major to bear on questions of citizenship, civic engagement, and public affairs. The program thus integrates for its students two of the great strengths of the Maxwell School—excellence in the social sciences and a dedication to the public good—and provides pathways for producing direct, meaningful connections between knowledge and action.

The Program begins with a sequence of lower- and upper-division courses, which coordinates the experiences of students in the various disciplinary majors and directs them towards the defining requirement of the major: the senior-level Action Plan Workshop, in which students design and implement, as much as possible, a concrete strategy for addressing an issue of local, national, or international concern. The Action Plan will rely on the training received in the student's social-science discipline, but it will not be a traditional academic thesis; rather, the goal will be to study, understand, and act on an issue deemed important by the student herself. The Program requires thirty-one credit hours of coursework, in addition to the requirements for the separate social-science or other majors; some of these courses will fulfill other Arts and Sciences and departmental requirements at the same time.

### Program Requirements:

The Program requires thirty-one credit hours of coursework, outlined below, in addition to the completion of a concurrent major chosen from the existing social-science disciplines within Maxwell (Anthropology, Economics, Geography, History, International Relations, Political Science, Policy Studies, and Sociology) or a related discipline outside of Maxwell that entails a substantial social-science focus.

The program has two entry points: the beginning of a student's first year at Syracuse University, and the beginning of the second.

The first-year entry point allows prospective high-school seniors to apply to the Program at the same time they apply to Syracuse University; those accepted will enter the Program upon matriculation. They will also benefit from a robust schedule of social and academic events that are designed to build a sense of esprit de corps among the cohort.

Students already at Syracuse University may apply for admission to the program at the end of the first year, for matriculation at the beginning of the second. The Program Board will recruit students from the intro-level courses in Maxwell departments and related departments across campus, as well as from MAX 123 and MAX 132. First-year Foundations requirements (outlined below) are not waived for students entering in their second year; students who wish to apply to the Program in their first year at Syracuse University, must complete those requirements before they may begin the program.

Successful completion of a concurrent major, in one of the existing Maxwell undergraduate programs or in a suitably related discipline, is a requirement for graduation in the Maxwell Program in Citizenship and Civic Engagement; declaration of that major is not a requirement for entry into the program.

All students complete the Liberal Arts Core requirements. Under the guidance of faculty mentors and the Program's board, Core courses should be selected to provide the broadest possible methodological foundation for a student's particular interests in civic engagement.

All students must complete a lower-division foundation sequence, an upper-division sequence, and a "connective coursework" sequence, as follows:

#### Lower Division Experience

##### First-year Foundations (six credit hours):

- Either MAX 123, Critical Issues for the United States, or MAX 132, Global Community; plus one additional entry-level course (200-level or below) in any Maxwell department.
- A student may take both MAX 123 and MAX 132 to fulfill this requirement.
- This requirement must be completed during a student's first (freshman) year at Syracuse University.

##### Social-Science Methodology (six credit hours):

- MAX 201, Quantitative Methods for the Social Sciences
- One additional course on methodology, selected from the following list:

ANT 453 Poverty, Policy, and Human Services  
ANT 481 Ethnographic Techniques  
ANT 482 Life Histories/Narratives  
ANT 484 Social Movement Research Methods  
GEO 381 Cartographic Design  
GEO 383 Geographic Information Systems  
GEO 386 Quantitative Geographical Analysis  
GEO 482 Environmental Remote Sensing  
HST 201 Research Seminar (topic varies)  
HST 401 Senior Research Seminar (topic varies)  
PAF 315 Methods of Policy Analysis and Presentation  
PSC 202 Introduction to Political Analysis  
SOC 318: Introduction to Research  
SOC 319: Qualitative Research

#### Upper-Division Sequence

Students take each of three new courses, all designed specifically for the Program, in the sophomore, junior, and senior years (ten credit hours):

- MAX 301 Ethics, Justice, and Citizenship (four credit hours)

Seminar in ethics and political/social justice as they pertain to citizenship and civic action. Course covers historical and contemporary approaches to citizenship; contains substantial research and service-learning components.

- MAX 302 Civic Engagement Research Seminar (three credit hours)

Readings and research on application of social-science methodologies to concrete civic, political, and global issues. Initial focus on Maxwell-based research; case studies of academically informed civic engagement; final project proposal on topic of student's choice.

- MAX 401 Action Plan Workshop (three credit hours)

Capstone course for Maxwell Citizenship/Civic Engagement Program. Design and implementation of "Action Plan" to improve social, economic and/or political conditions at the local, state, federal or global level.

All of these courses are offered in both spring and fall semesters, to accommodate student schedules and especially those students who study abroad in one or more semesters.

#### Connective Coursework

Students enroll in three upper-division courses (nine credit hours) clearly related to the design and execution of the final Action Plan. Courses are selected with the help of the student's faculty advisor and approved by the Program's Advisory Board. The courses must come from at least two different academic departments or units within Maxwell; one of the courses may be taken from any unit in the University. These courses should be selected to provide a broad substantive background for a student's Action Plan; students will be encouraged to integrate into their studies civically engaged research from outside the Maxwell School.

#### Concurrent Major

The structure of the Maxwell Program in Citizenship and Civic Engagement is based on the premise that the senior-level Action Plan will require and apply the research skills gained in pursuit of an undergraduate degree in the social sciences.

All students, therefore, must complete, in addition to the requirements for the Maxwell Program in Citizenship and Civic Engagement outlined above, a concurrent major chosen from the existing social-science disciplines within Maxwell (Anthropology, Economics, Geography, History, International Relations, Political Science, Policy Studies, and Sociology) or a related discipline outside of Maxwell that entails a substantial social-science focus.

Students singly enrolled in the College of Arts and Sciences choose the concurrent major from the existing social-science disciplines within Maxwell, or from suitably related disciplines in the College of Arts and Sciences.

Students enrolled in the College of Arts and Sciences dual programs with S.I. Newhouse School of Public Communications or the School of Education, or students enrolled in other schools/colleges in majors not directly related to the social sciences, may apply for a dual or double major, respectively, in Citizenship and Civic Engagement if their intended course of study and goals for academically informed civic engagement fit with the structure and capacities of the Program. In such cases, the Program's Director and Board will ensure that the student's program of study provides sufficient background in the social sciences to complete the Action Plan.

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## Classical Civilization Major

#### Contact:

Jeffrey S. Carnes, [jscarnes@syr.edu](mailto:jscarnes@syr.edu)  
332 H.B. Crouse, 315-443-2068

Faculty Jeffrey S. Carnes, Matthieu H. van der Meer

#### Why Study Classics?

The past is a foreign country; they do things differently there.

L.P. Hartley

Students approaching Classical Studies for the first time may wonder how the study of languages and cultures from antiquity is relevant in the digital era; why study Classics?

First, Classics provides students with many fascinating intellectual opportunities. Because the range of Greek and Latin literature is so diverse, students interested in history, drama, poetry, political science, or philosophy, will find ample material to stimulate their curiosity. Moreover, students will develop the ability to read some of the most influential works of western literature in their original languages, and learn about cultures that are radically different from our own, yet at the same time provide the foundation of many modern ideas and institutions.

Since Classical Studies have traditionally played a central role in education they have left an indelible mark on the intellectual, political, and artistic development of Western Civilization. Countless authors, as diverse in time and place as Dante and Derek Walcott, have looked for inspiration to the classical tradition; political theorists and statesmen, including Thomas Jefferson and Alexander Hamilton, developed their political ideals through a close reading of ancient historians such as Polybius and Thucydides. Understanding the reception of classical texts and the ways subsequent generations adapted and modified classical ideals will grant students a greater degree of proficiency in civic and cultural history, and help them better understand the cultural politics of their own world.

While not all Classics students wish to become classical scholars, a major in Classics is among the most impressive degrees to have when applying for a job in other fields. The work ethic required for success in the languages, the intellectually challenging nature of the grammar and syntax of Greek and Latin, and the interdisciplinary nature of the field are only a few reasons why Classics majors are highly respected and sought-after job candidates. Furthermore, because of the historical role of Classics in education many terms and concepts in various fields are derived from Greek or Latin. For these reasons, Classics majors often find employment in Law, Medical Sciences, Government/Politics, Writing and Journalism, and Education.

Why study Classics? To find a challenging and immensely rewarding field of study, and to explore the familiar yet foreign country that is our past.

#### MAJOR REQUIREMENTS

The Major in Classical Civilization requires 27 credits chosen from the following list of courses. No more than 9 credits may be selected from any one subject, and no more than 18 credits may be selected from any one department. At least 18 credits must come from courses numbered 300 and above; in addition, at least two courses must come from the courses taught within the Classics program (those with the prefixes LAT, GRE, and LIT). Other courses related to the ancient world may be substituted with the approval of the program director.

## GREEK

GRE 101	Ancient Greek I
GRE 102	Ancient Greek II
GRE 201	Ancient Greek III
GRE 310	Greek Prose Authors
GRE 320	Readings from Greek Poets
GRE 410	Advanced Greek Prose
GRE 420	Advanced Greek Poetry

## LATIN

LAT 101	Latin I
LAT 102	Latin II
LAT 201	Latin III
LAT 310	Latin Prose Authors
LAT 320	Latin Poets
LAT 410	Advanced Latin Prose
LAT 420	Advanced Latin Poetry

## LIT (Literature in Translation)

LIT 101	Introduction to Classical Literature (Greek)
LIT 102	Introduction to Classical Literature (Latin)
LIT 203	Greek and roman Epic in English Translation
LIT 211	Greek and Roman Drama in English Translation
LIT 300.2	A Greek Odyssey (offered in Florence)
LIT/REL 421	Classical Mythology (offered in Florence)

## ANTHROPOLOGY

ANT 141	Introduction to Archaeology and Prehistory
ANT 145	Introduction to Historical Archeology
ANT 346	Gender Through the Ages
ANT 348	History of Archaeology

## HISTORY

HST 210	The Ancient World
HST 310	Early Medieval Europe
HST 352	History of Ancient Greece
HST 353	History of Ancient Rome
HST 401	Roman Imperialism
HST 401	Herodotus and the Persian Wars

## HISTORY OF ART

HOA 105	Arts and Ideas I
HOA 301	Origins of Western Art
HOA 302	Greek Art and Architecture
HOA 303	Etruscans and Romans (offered in Florence)
HOA 304	Roman Art and Architecture

## LINGUISTICS

LIN 201	The Nature and Study of Language
LIN 202	Languages of the World

## PHILOSOPHY

PHI 111	Plato's Republic
PHI 307	Ancient Philosophy
PHI 415	Roots of Western Civilization (offered in Madrid)

## RELIGION

REL 205	Ancient Greek Religion
REL 206	Greco-Roman Religion
REL 217	New Testament

## Classical Civilization

Classical Civilization

Coordinator: Jeffrey S. Carnes, Associate Professor  
340 Huntington Beard Crouse Hall  
315-443-2068  
jscarnes@syr.edu

Faculty Jeffrey S. Carnes, Matthieu H. van der Meer

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Admission

Undergraduate students at Syracuse University in a college that awards minors in Arts and Sciences subject areas.

Curriculum Requirements:

The Minor in Classical Civilization requires 18 credits chosen from the following list of courses. At least 12 credits must come from courses numbered 300 and above; in addition, at least two courses must come from among the courses taught within the Classics program (those with the prefixes LAT, GRE, and LIT). Other courses related to the ancient world may be substituted with the approval of the program director.

### GREEK

GRE 101 Ancient Greek I  
GRE 102 Ancient Greek II  
GRE 201 Ancient Greek III  
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GRE 320 Readings from Greek Poets  
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ANTHROPOLOGY

ANT 141 Introduction to Archaeology and Prehistory  
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ANT 346 Gender Through the Ages  
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HISTORY

HST 210 The Ancient World  
HST 310 Early Medieval Europe  
HST 352 History of Ancient Greece  
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HST 401 Herodotus and the Persian Wars

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LINGUISTICS

LIN 201 The Nature and Study of Language  
LIN 202 Languages of the World

PHILOSOPHY

PHI 111 Plato's Republic  
PHI 307 Ancient Philosophy  
PHI 415 Roots of Western Civilization (offered in Madrid)

RELIGION

REL 205 Ancient Greek Religion  
REL 206 Greco-Roman Religion  
REL 217 New Testament  
REL 294 Mythologies  
REL 309 Early Christianities  
REL/LIT 421 Classical Mythology (offered in Florence)

Total Credits: 18

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## Classics Major

Classics

Contact:  
Jeffrey S. Carnes, [jscarnes@syr.edu](mailto:jscarnes@syr.edu)  
332 H.B. Crouse, 315-443-2068

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Why study Classics? To find a challenging and immensely rewarding field of study, and to explore the familiar yet foreign country that is our past.

## MAJOR REQUIREMENTS

### Greek Emphasis

The Major in Classics with Greek Emphasis consists of 27 credits in Greek, with at least 18 credits coming from courses numbered 300 and above. Courses in Latin numbered 300 and above may be substituted up to a total of 6 credits. Courses from the approved list for Classical Civilization may be substituted up to a total of 6 credits with the approval of the Director.

### Latin Emphasis

The Major in Classics with Latin Emphasis consists of 27 credits in Latin, with at least 18 credits coming from courses numbered 300 and above. Courses in Greek may be substituted up to a total of 9 credits. Courses from the approved list for Classical Civilization may be substituted up to a total of 6 credits with the approval of the Director.

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## Classics Minor

### Minor in Classics

Contact: Jeffrey S. Carnes  
332 H.B. Crouse  
315-443-2068  
jscarnes@syr.edu

Faculty Jeffrey S. Carnes, Matthieu H. van der Meer

## Why Study Classics?

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L.P. Hartley

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Why study Classics? To find a challenging and immensely rewarding field of study, and to explore the familiar yet foreign country that is our past.

## MINOR IN CLASSICS

A minor in Classics consists of 18 credits in GRE and LAT courses, with at least 9 credits coming from upper-division courses. Courses from the approved list for Classical Civilization may be substituted up to a total of 3 credits with the approval of the Director.

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## Cognitive Science Minor

Cognitive Science

Robert Van Gulick, Director

522 Hall of Languages

315-443-5828

rnvangul@syr.edu

The minor in cognitive science offers study in recent interdisciplinary research on cognition. Relevant courses are offered in several departments and colleges, including College of Engineering and Computer Science and the linguistics, philosophy, and psychology departments within the College of Arts and Sciences. Students may pursue study in cognition science either by enrolling in the interdisciplinary minor or by majoring in selected studies in cognitive science (see selected studies). Faculty advisors are available within each of these units to help students plan a course of study.

### Requirements

The minor requires 18 credits, according to the following distribution:

Students take the core course COG 301 Introduction to Cognitive Science. In addition, students take at least four courses, chosen from at least three of the four areas below:

#### Cognitive Processes

- PSY 322 Cognitive Psychology
- PSY 426 Cognitive Neurochemistry
- PSY 437 Cognition and Aging

#### Conceptual Foundations

- CIS 467 Introduction to Artificial Intelligence
- PHI 377 Philosophy of Psychology
- PHI 378 Minds and Machines
- PHI 487 History of Epistemology

#### Formal Systems

- CIS 473 Logic and Computability Theory
- PHI 551 Symbolic Logic
- CIS 565 Artificial Neural Networks

#### Linguistics

- CIS 668 Natural Language Processing
- LIN 301/601 Introductory Linguistic Analysis
- LIN 431/631 Phonological Analysis

- LIN 441/641 Syntactic Analysis

To complete the minor in cognitive science students take an additional cognitive science course, either a fifth course chosen from those listed above or, with the advisor's approval, a credit bearing independent study course (COG 490).

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## Communication Sciences And Disorders Major

Chair: Linda Milosky, Ph.D.

621 Skytop Road  
Suite 1200  
315-443-9637

Faculty Karen Doherty, Mary Louise Edwards, Soren Lowell, Linda Milosky, Joseph Pellegrino, Beth Prieve, Kathy R. Vander Werff

Clinical Staff T. Kordas, K. Kennedy, M. Leece, A. Lightburn, R. Voleti, C. Tamayo, A. Libera, M. Bergett

The program in communication sciences and disorders provides students with a broad education in human communication sciences and disorders. Students may participate in clinical experiences in the Gebbie Speech-Language- Hearing Clinics. The program prepares students for graduate study in speech-language pathology and audiology and other related fields in health, education, and science. Interested students have the opportunity to participate in research in faculty laboratories.

Students interested in this major should contact the Department of Communication Sciences and Disorders at [csd@syr.edu](mailto:csd@syr.edu) as early as possible. Students are formally admitted to the major after consulting a department advisor on a plan of study and successfully completing CSD 212 with a B or better, or by petition.

A master's degree is required to practice speech pathology, and a clinical doctoral degree (Au.D.) is required to practice audiology. Minimally, a student will need a 3.0 GPA to be considered for these graduate programs. Many programs require a higher GPA.

### MAJOR REQUIREMENTS

The B.S. in Communication Sciences and Disorders requires students to fulfill the quantitative skills requirement for the liberal arts core and to complete 34 credits in CSD courses, as outlined below.

#### Introductory Course (3 credits)

- CSD 212 Introduction to Communication Sciences and Disorders 3

#### Normal Processes (18 credits)

- CSD 315 Anatomy and Physiology of the Speech and Hearing Mechanism (3)
- CSD 325 Fundamentals of Hearing Science (3)
- CSD 345 Fundamentals of Speech Science (3)
- CSD 316 Introduction to Applied Phonetics (3)
- CSD 409 Cognitive Neuroscience of Speech and Language (3)
- CSD 422 Development of Speech and Language (3)

#### Disorders (7 credits)

- CSD 450 Clinical Classroom Practicum (1)
- CSD 429 Basic Clinical Audiology (3)
- CSD 451 Clinical Methods in Speech-Language Pathology (3)

#### CSD Electives (6 credits)

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## Communication Sciences And Disorders Minor

Communication Sciences and Disorders

Linda Milosky, Chair

621 Skytop Road, Suite 1200  
315-443-9637

The minor is designed for the undergraduate student who wishes to explore the field of communication sciences and disorders, to investigate an area of academic substance, and to become familiar with a field that offers opportunities in both applied and basic research and clinical practice.

The minor consists of 18 credits.

Required:

- CSD 212 Introduction to Communication Sciences and Disorders

At least three courses selected from the following group:

- CSD 315 Anatomy and Physiology of the Speech and Hearing Mechanism
- CSD 316 Introduction to Applied Phonetics
- CSD 325 Fundamentals of Hearing Science
- CSD 345 Fundamentals of Speech Science
- CSD 409 Cognitive Neuroscience of Speech and Language
- CSD 422 Development of Speech and Language

And two additional courses chosen from the prior group or from the following:

- CSD 427 Articulation Disorders
- CSD 425 Stuttering
- CSD 429 Basic Clinical Audiology
- CSD 435 Aural Rehabilitation

---

## Earth Sciences Major

Donald Siegel, Chair  
204 Heroy Geology Laboratory,  
315-443-2672.

Faculty Suzanne L. Baldwin, Marion E. Bickford, Paul G. Fitzgerald, Gregory D. Hoke, Linda C. Ivany, Christopher Junium, Jeffrey A. Karson, Laura K. Lautz, Zunli Lu, Robert Moucha, Cathryn R. Newton, Scott D. Samson, Christopher A. Scholz, Donald I. Siegel, Bruce H. Wilkinson

The Earth Sciences provide insights into some of humanity's deepest questions. How was the planet Earth, our lifeboat in space, formed? What are the processes that have shaped the Earth — its surface and internal structure? How has life, of which humanity is a part, evolved? Why are there earthquakes, volcanoes, mountain chains, continents, and oceans? How has the surface of the Earth changed through time? On a practical level, the study of Earth Sciences provides a basis for understanding natural hazards, assessing Earth's climate variability and global change, predicting the migration of man-made pollutants, and exploring for the energy and mineral resources upon which society depends. The study of Earth Sciences also, uniquely, provides a perspective of time and an appreciation of the natural world that can enrich a lifetime.

The Department of Earth Sciences offers bachelor of science and bachelor of arts degrees. The bachelor of science degree is recommended for students intending to pursue a career in the Earth Sciences—either professionally or in academia. Most bachelor of science students continue on to graduate school to obtain a master's degree, the standard entry-level professional degree in the Earth sciences, or a Ph.D. if they intend to pursue a career in academia. Two bachelor of science degree tracks are offered within the department, the B.S. in Earth Sciences, and the B.S. in Earth Sciences with focus in environmental science. The B.S. in Earth Sciences provides a strong background in basic science and geology, and through appropriate choice of electives can be tailored to meet a wide range of possible interests within the Earth Sciences. The B.S. in Earth Sciences with focus in environmental science is offered jointly with the biology department, and is recommended for those students specifically intending to pursue a career in the environmental arena.

The bachelor of arts degree in Earth Sciences is recommended for those students who enjoy and are intellectually intrigued by the Earth Sciences, but intend to pursue careers in other fields. The B.A. degree differs from the B.S. degree in that it requires fewer ancillary science courses and fewer electives from within the department. Along with intellectual enrichment, the B.A. degree provides a rounded science foundation and critical thinking skills that can be applied to numerous other fields. Graduates with B.A.s in Earth Sciences go on to be lawyers, teachers, business people, environmental planners, public policy makers, and politicians, as well as geologists.

### REQUIREMENTS FOR A B.A. DEGREE IN EARTH SCIENCES

#### Introductory Course (one of the following):

EAR 110 or EAR 203 or (EAR 105 and EAR 104).

#### One of the following sequence courses:

EAR 210 (History of Earth and Life),

EAR 106 (Geohazards & Natural Disasters),

EAR 111 (Climate Change Past and Present),

EAR 117 (Oceanography),

EAR200 (Selected Topics)

EAR205 (Water and Our Environment)

EAR 225 (Volcanoes and Earthquakes)

plus an additional 18 credits in Earth Sciences at 300 level or above.

#### REQUIREMENTS FOR B.S. DEGREE IN EARTH SCIENCES

##### Introductory Courses (one of the following sequences)

- EAR 110, 210
- EAR 203, 210
- EAR 105 (104), 210

Note: EAR 104 is the laboratory for EAR 105 and may be taken concurrently with EAR 210.

##### Core Courses in Earth Sciences (12 credits plus an approved field course)

- EAR 314 Mineralogy
- EAR 333 Structural Geology
- EAR 317 Sedimentary Processes and Systems

##### SUMMER FIELD EXPERIENCE

EAR 470 Field Experience (6 cr., by transfer)

The Geology Field Experience. This requirement consists of 6 or more credit hours of transfer credit brought in as EAR 470. The requirement is satisfied by participation in an approved 6-week summer geological field camp, or through an alternative approved field program. The field experience is typically scheduled in the summer between junior and senior years, but completion of the requirement during the summer following graduation is also possible. For enrollment in a traditional Geological Field Camp, courses in Structural Geology and Sedimentary Geology may be required.

##### Required Ancillary Sciences and Mathematics

- CHE 106/116 General Chemistry
- CHE 107/117 General Chemistry Laboratory
- PHY 211/221 General Physics and Laboratory I
- PHY 212/222 General Physics and Laboratory II
- Any combination of Calculus I and Calculus II (E.g. MAT 285/286 Life Sciences Calculus I and II or MAT 295/296 Calculus I and II, or MAT 285/296 or MAT 295/286)

Other Elective Courses (24 credits of department or approved auxiliary science or math courses, at least 15 of which must be upper-division Earth Science credits).

#### REQUIREMENTS FOR B.S. DEGREE IN EARTH SCIENCES WITH FOCUS IN ENVIRONMENTAL SCIENCE

INTRODUCTORY EARTH SCIENCE: TWO OF THE FOLLOWING CLASSES. One must be a lab class 7 credits

- EAR 203: Earth System Science and lab OR
- EAR 110: Dynamic Earth and lab OR
- EAR 105: Earth Sciences with EAR 104: Dynamic Earth Laboratory\*

\*Credit will not be given for both EAR110 and EAR105, or both EAR110 and 203, or both EAR105 and 203.

AND you can pick one of the above courses with one of the courses below.

- EAR 106: Geohazards & Natural Disasters
- EAR 210: History of Earth and Life and lab
- EAR 117: Oceanography
- EAR 111: Climate Change – Past and Present
- EAR200: Selected Topics
- EAR205: Water and Our Environment

## INTRODUCTORY BIOLOGY

7 credits

- BIO 121: General Biology
- BIO 345: Ecology and Evolution

## CORE COURSES 8 credits

- EAR 314: Mineralogy
- EAR 317: Sedimentary Processes and Systems

## UPPER DIVISION REQUIREMENTS

Select 21 credit hours from the following. At least 12 hours must be in Earth Science courses. Appropriate substitutions may be made by petition to the Earth Sciences advisor.

- EAR 325: Introduction to Paleobiology
- EAR 333: Structural Geology
- EAR 510: Paleolimnology
- BIO 451: Ecology
- EAR 417: Geochemistry
- BIO 453: Ecology Lab
- BIO 454: Evolution
- EAR 401: Hydrogeology
- EAR 403: Geomorphology
- GEO 383: Geographic Information Systems
- EAR 405: Global Change: The Geologic Record
- GEO 386: Quantitative Geographical Analysis
- EAR 544: Quaternary Environments/Climatic Change (Envir)
- CIE 471: Environmental Chemistry and Analysis
- BIO 409: General Microbiology
- CIE 555: Hazardous Waste Management
- BIO 415: Conservation Biology
- CIE 561: Air Resources I
- EAR 419 Aqueous Geochemistry

## REQUIRED SENIOR CAPSTONE COURSE 3 credits.

- EAR/BIO 428: Environmental Seminar

## ADDITIONAL REQUIREMENTS IN COGNATE SCIENCES AND MATH 20 to 22 credit hours.

\* EITHER Any combination of calculus I and calculus II (E.g. Math 285/286 - or - MATH 295/296 - or -MAT285/296 or MAT295/286)

OR

MAT295 plus Statistics (MAT 221) or MAT285 plus Statistics (MAT221)

\* 1 year General Chemistry: CHE 106/116, 107/117

A year of General Physics (PHY 211/221 and 212/222) is also recommended for students interested in pursuing careers in hydrology.

## SUMMER FIELD EXPERIENCE

- EAR 470 Field Experience (6 cr., by transfer)

The Geology Field Experience. This requirement consists of 6 or more credit hours of transfer credit brought in as EAR 470. The requirement is satisfied by participation in an approved 6-week summer geological field camp, or through an alternative approved field program. The field experience is typically scheduled in the summer between junior and senior years, but completion of the requirement during the summer following graduation is also possible. For enrollment in a traditional Geological Field Camp, courses in Structural Geology and Sedimentary Geology may be required.

#### ADDITIONAL AVAILABLE COURSES

Several courses in the College of Environmental Science and Forestry also will be available for students in this program, as substitutes for Earth Science Upper Division Electives, pending permission of the Undergraduate Advisor. These courses include:

- EFB 415: Ecological Biogeochemistry
  - FCH 515: Methods of Environmental Chemical Analysis
  - EFB 452: Principles of Chemical Control
  - FCH 352: Introduction to Remote Sensing
  - EFB 505: Microbial Ecology
  - EFB 510: Health and Our Chemical Environment
  - EFB 524: Limnology
  - EFB 525: Limnology laboratory
- 

### Requirements For Distinction In Earth Sciences:

MINIMUM GPA WITHIN DEPARTMENT 3.6

CUMULATIVE GPA, BY END OF SENIOR YEAR 3.4

OTHER CRITERIA REQUIRED FOR THE DEGREE WITH DISTINCTION:

Students must complete a research-based senior thesis in conjunction with a faculty supervisor. The thesis must constitute independent, hypothesis-driven research involving investigative tools and techniques in the Earth Sciences. Students must submit the written thesis to the department and give a public seminar reporting their results. Students should register for EAR 409 (Senior Thesis in Earth Sciences) in the semester in which they plan to submit the thesis. All else being satisfied, Distinction is conferred following a vote of approval from the Faculty of the Department of Earth Sciences.

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### Earth Sciences Minor

Donald Siegel, Chair  
204 Heroy Geology Laboratory  
315-443-2672

The Earth Sciences provide insights into some of humanity's deepest questions. How was the planet Earth, our lifeboat in space, formed? What are the processes that have shaped the Earth — its surface and internal structure? How has life, of which humanity is a part, evolved? Why are there earthquakes, volcanoes, mountain chains, continents, and oceans? How has the surface of the Earth changed through time? On a practical level, the study of Earth Sciences provides a basis for understanding natural hazards, assessing Earth's climate variability, predicting the migration of man-made pollutants, and exploring for the energy and mineral resources upon which society depends. The study of earth sciences also, uniquely, provides a perspective of time and an appreciation of the natural world that can enrich a lifetime.

#### MINOR IN EARTH SCIENCES

To complete a minor in Earth Sciences, students must take 18 credits in Earth sciences which includes an introductory course (EAR105 or EAR110 or EAR203), and 12 credits of courses numbered 300 or above.

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### Earth Science Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Earth Science and Secondary Science Education (Earth Science) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York

State teaching certification for Earth Science (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Economics Major

### Economics

Chair: William Horrace  
110 Eggers Hall  
315-443-3612.

Faculty Elizabeth Ashby, Badi Baltagi, Kristina Buzard, Donald H. Dutkowsky, Gary V. Engelhardt, Jerry Evensky, Susan H. Gensemer, William Horrace, Chihwa (Duke) Kao, Leyla Karakas, Jerry S. Kelly, Jeffrey D. Kubik, Derek Laing, Yoonseok Lee, Chung-Chin (Eugene) Liu, Mary E. Lovely, Robin P. Malloy, Devashish Mitra, Piyusha Mutreja, Inge O'Connor, Jan Ivar Ondrich, John L. Palmer, Eleonora Patacchini, Lourenço Paz, J. David Richardson, Stuart S. Rosenthal, Abdulaziz Shifa, Perry Singleton, A. Dale Tussing, Michael Wasylenko, Peter J. Wilcoxon, John M. Yinger

Economists analyze the internal functioning of markets and market outcomes. While modern economics focuses on market forces, markets function imperfectly in some cases and that introduces scope for policy action. Our curriculum emphasizes the application of economics to the study of public policy issues and the role of government in a market economy. Examples include analysis of international trade and relations, economic behavior in the workplace, health care, taxation, and numerous other spheres of a global economy. Students who major in economics prepare themselves for a variety of careers. Some move on to graduate study in economics and become professional economists; the majority, however, pursue careers in law, public policy, government, and many aspects of business, including banking and financial analysis, management, and marketing. Consequently, some students choose to pursue double majors and dual degrees. Further information on these programs is available in the Academic Rules and Regulations section of this catalog or in the economics department office.

The department offers both the B.A. degree in economics as well as a B.S. degree in economics. The B.A. has a liberal arts focus and emphasizes the applied and policy aspects of economics. The B.S. is attractive to the more mathematically oriented student.

### MAJOR REQUIREMENTS

#### B.A. Degree

A student becomes an economics major after consulting with an economics advisor on a plan and course of study and bringing them to the department office for approval. To earn a B.A. in economics, a student:

1. Fulfills the quantitative skills requirement for the liberal arts core;
2. Completes 3-6 credits of Principles of Economics (ECN 203, or equivalent); and
3. Completes 24 credits of upper-division economics courses, including:

- a) ECN 301 (or ECN 311) Intermediate Microeconomic Theory
- b) ECN 302 Intermediate Macroeconomic Theory
- c) Six other upper-division electives in economics (ECN 300 or higher, excluding ECN 365 and 470), including at least two courses that have a prerequisite of ECN 301 (or 311) or ECN 302.

In all, 27 to 30 credits of economics courses are required (depending on whether 3 or 6 credits of principles are taken).

The Economics Department applies a two-thirds rule to the upper-division economics courses (item 3 above). Two-thirds of the upper-division coursework must be taken at Syracuse University or its affiliate programs, such as SU Abroad. In practical terms, for the B.A. degree, no more than two of the upper-division courses may be taken at another college or university and applied to the economics major at Syracuse University.

Graduation with a B.A. in economics requires an overall grade point average of 2.0 or higher in 24 credits of upper-division economics courses.

### Scheduling

It is recommended that students sequence their courses in the following manner:

1. The Principles of Economics (ECN 203 or equivalent) and the quantitative skills requirement of the Liberal Arts Core should be completed by the end of the sophomore year or earlier.
2. The quantitative skills requirement of the Liberal Arts Core should be completed before the intermediate theory courses ((ECN 301 or ECN 311) and ECN 302) are taken.
3. By the end of the junior year or earlier, students should have taken the intermediate theory courses ((ECN 301 or 311) and 302) and perhaps taken two upper-division economics courses.
4. It is recommended that students take at least 3 credits of statistics, such as ECN 521 or STT 101 and MAX 201.
5. Senior majors are encouraged to enroll in courses numbered 500-599. Often these classes are designed to be small seminars for the advanced undergraduate. Undergraduate majors who have completed the stated prerequisites for the 500 -level courses should not be discouraged by the possibility that some master's students may also be enrolled.

### Substitutions

Courses not listed in the above plan and/or taken outside Syracuse University will not be counted toward the fulfillment of economics degree requirements except upon the approval of a petition. Such petitions should be approved before the substitution course is taken, unless it was completed while the student was regularly enrolled in the school or college in which the course was offered. For management students with a second major in economics, FIN 355 may be used as a substitute for ECN 481. Credit is not given for both ECN 481 and FIN 355.

### Curriculum Suggestions

Students who are more analytically inclined or interested in graduate school should plan to take MAT 295/296, and take ECN 311 rather than ECN 301. In addition, they may wish to take ECN 505 and 521/522 as upper-division economics electives.

Students planning to enter law school after graduation may find ECN 431, 451, and 481 of particular interest, while those who plan to pursue graduate degrees in management may want to choose from ECN 465, 481, 487, and 566. Students pursuing an international specialty might be interested in ECN 410 Economic Development, ECN 465, and 481. Students preparing a public sector specialty might find ECN 431 of particular interest. Those with a human resources interest should select electives from ECN 451 and 481. Those interested in macroeconomic theory should consider ECN 431, 481 and 566.

The School of Management allows economics majors to take one course per semester in the School of Management. These courses are counted as general electives and not as economics or arts and sciences electives.

### B.S. Degree

The B.S. degree has an orientation toward the statistical and mathematical skills necessary to work as a professional economist or pursue graduate work in economics, public policy, or business. Students who want these career tracks or who want to acquire more analytical skills that can be used in a variety of careers should pursue the B.S. degree.

A student becomes an economics major after consulting with an economics advisor on a plan and course of study and bringing them to the department office for approval. To earn a B.S. in economics, a student:

1. Completes calculus courses: Calculus I (MAT 295) and Calculus II (MAT 296);
2. Completes 3 to 6 credits of Principles of Economic (ECN 203, or the equivalent); and
3. Completes 30 credits of upper-division economics courses, including:
  - a) ECN 311 Intermediate Mathematical Microeconomics (not ECN 301);
  - b) ECN 302 Intermediate Macroeconomics Theory;
  - c) ECN 505 Mathematical Economics;
  - d) ECN 521 Economic Statistics;

- e) ECN 522 Econometric Methods;
- f) Five other upper-division electives in economics (ECN 300 or higher, excluding ECN 365 and 470), including at least two courses that have a prerequisite of ECN 311 or ECN 302.

In all, 30 credits of upper-division coursework (courses numbered 300 or higher) in economics are required, in addition to the two courses in calculus, and principles of economics. (In some instances, students will be allowed to substitute MAS 261 and 362 for ECN 521.)

The Economics Department applies a two-thirds rule to the upper-division economics courses (item 3 above). Two-thirds of the upper-division coursework must be taken at Syracuse University or its affiliate programs, such as SU Abroad. In practical terms, for the B.S. degree, no more than three of the upper-division courses may be transferred in. Because of the specialized nature of ECN 311, ECN 505, and ECN 522, it may be difficult to find acceptable substitutes at other colleges or universities.

Graduation with a B.S. in Economics requires an overall grade point average of 2.0 or higher in the 30 credits of upper-division economics courses. Students who wish to pursue the B.S. degree in Arts and Sciences must petition the economics department to be formally accepted as a candidate.

### Scheduling

It is recommended that students sequence their courses in the following manner:

1. The Principles of Economics (ECN 203 or equivalent) and the two required calculus courses should be completed by the end of the sophomore year or earlier, and before taking ECN 311.
2. ECN 311 can be taken in the fall of the junior year or earlier, along with ECN 521. ECN 522 can be taken in the spring of the junior year or earlier, along with ECN 302. One (or two) of the five economics major electives should be taken by the end of the junior year or earlier.
3. ECN 505 and four (or three) of the five economics major electives should be taken in the senior year or earlier.
4. Senior majors are encouraged to enroll in courses numbered 500-599. Often these classes are designed to be small seminars for the advanced undergraduate. Undergraduate majors who have completed the stated prerequisites for the 500 -level courses should not be discouraged by the possibility that some master's students may also be enrolled.

### Substitutions

Substitution suggestions described above for the B.A. degree apply to B.S. degree majors as well.

### Curriculum Suggestions

The curriculum suggestions described above for the B.A. degree apply to B.S. degree economic majors as well.

## Economics Minor

### Economics

William Horrace, Chair  
110 Eggers Hall  
315-443-3612

Faculty Elizabeth Ashby, Badi Baltagi, Kristina Buzard, Donald H. Dutkowsky, Gary V. Engelhardt, Jerry Evensky, Susan H. Gensemer, William Horrace, Chihwa (Duke) Kao, Leyla Karakas, Jerry S. Kelly, Jeffrey D. Kubik, Derek Laing, Yoonseok Lee, Chung-Chin (Eugene) Liu, Mary E. Lovely, Robin P. Malloy, Devashish Mitra, Piyusha Mutreja, Inge O'Connor, Jan Ivar Ondrich, John L. Palmer, Eleonora Patacchini, Lourenço Paz, J. David Richardson, Stuart S. Rosenthal, Abdulaziz Shifa, Perry Singleton, A. Dale Tussing, Michael Wasylenko, Peter J. Wilcoxon, John M. Yinger

Economists analyze the internal functioning of markets and market outcomes. While modern economics focuses on market forces, markets function imperfectly in some cases and that introduces scope for policy action. Our curriculum emphasizes the application of economics to the study of public policy issues and the role of government in a market economy. Examples include analysis of international trade and relations, economic behavior in the workplace, health care, taxation, and numerous other spheres of a global economy. Students who major in economics prepare themselves for a variety of careers. Some move on to graduate study in economics and become professional economists; the majority, however, pursue careers in law, public policy, government, and many aspects of business, including banking and financial analysis, management, and marketing. Consequently, some students choose to pursue double majors and dual degrees. Further information on these programs is available in the Academic Rules and Regulations section of this catalog or in the economics department office.

### MINOR IN ECONOMICS

To pursue a minor in economics, a student must petition the Economics Department and complete the following requirements:

1. 3-6 credits of Principles of Economics (ECN 203, or equivalent); and
2. 15 credits of upper-division economics courses, including:
  1. ECN 301 (or ECN 311) Intermediate Microeconomic Theory
  2. ECN 302 Intermediate Macroeconomic Theory

### 3. Three other upper-division electives in economics (ECN 300 or higher except ECN 301, 301, 311, 470, 495, 496 or 499)

In all, 18 to 21 credits of economics courses are required for the economics minor (depending on whether 3 or 6 credits of principles are taken). A minimum grade point average of 2.0 is required of all courses counted toward the minor in economics. School of Management majors who minor in economics may substitute FIN 355 for ECN 481. Credit cannot be granted, however, for both ECN 481 and FIN 355. In addition, economics minors will not receive credit for both ECN 365 and ECN 465.

All credits for the minor must be Syracuse University letter-graded coursework, except transfer credit. Only 3 credits can be transfer credit towards the economics minor and requires approval by petition.

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## Economics Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Economics and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Integrated Learning Major On Energy And Its Impacts

Integrated Learning Major on Energy and its Impacts

Contact: Peter Saulson  
(315) 443-5994  
[psaulson@syr.edu](mailto:psaulson@syr.edu)

Faculty Mark S. Braiman, Douglas A. Frank, Chris E. Johnson, Jane M. Read, Peter Saulson, Christopher A. Scholz, Peter J. Wilcoxon

Many of the issues facing humanity today center on energy: its supply, its use, and the impact that our energy use technologies have on our environment. The Integrated Learning Major on Energy and its Impacts gives students the interdisciplinary background required to understand the origin of our current problems and the ability to seek solutions to them. Students from a broad range of primary majors (in the Natural Sciences, Social Sciences, Engineering, or Management) will come together to confront some of the most important challenges that confront the world. A team-based capstone project will enhance interdisciplinary learning while building problem-solving skills.

Intended for students in the following primary majors: for College of Arts and Sciences students in Biology, Chemistry, Biochemistry, Biotechnology, Earth Sciences, Physics, Environmental Sciences, Economics, Geography, Political Science, Public Affairs, or International Relations, for LCS students in Environmental Engineering, Mechanical Engineering, Chemical Engineering, or Electrical Engineering, and for Whitman students in Entrepreneurship and Emerging Enterprises or Finance. (Note: Engineering students must also enroll in the LCS Energy Systems Minor.) Other primary majors may also be possible with approval of the director.

Students must take three Foundation courses, four or five Elective courses, a Junior Seminar, and a Senior Capstone Seminar, as described below.

#### FOUNDATION COURSES:

- One course covering the basic science of energy. Either:
  - PHY 101 Major Concepts in Physics (no prereq), or
  - CHE 103 Chemistry in the Modern World (no prereq) , or
  - CHE 116 General Chemistry (prereq: CHE 106), or
  - MAE 251 Thermodynamics (prereq: PHY 211), or
  - PHY 531 Thermodynamics and Statistical Mechanics (prereq: PHY 361)
  
- A course in environmental science (natural science). Either:
  - EAR 203 Earth System Science (no prereq), or  
EAR 106 Geohazards & Natural Disasters, or
  - GEO 215 Global Environmental Change (no prereq; Geo 155 is recommended) or
  - BIO 115 Ecological Problems and Society (no prereq)  
(req't waived for students who take BIO 121, 123 and at least one upper-division BIO course from the list below)
  
- A course in social science. Either:
  - ECN 203 Economic Ideas and Issues (no prereq), or
  - GEO 103 America and the Global Environment (no prereq), or
  - PSC 318 Technology, Politics, and Environment (no prereq), or
  - SOC 300 Sociology of the Environment

ELECTIVES, by taking 4 additional elective courses from the following list, at least one of which must be in social science (marked with \* on list below.) No more than two courses from a single Department can be used to satisfy this requirement. Students may need to take a fifth course from this list to meet the requirement of 18 credits at the 300 level or above.

- BIO 415 Conservation Biology (no prereq)
- BIO 451 General Ecology (prereq BIO 345)
- CHE 346 Physical Chemistry (prereqs CHE 116 or 119, MAT 286 or 296, coreq PHY 212)
- CHE 400 The Chemistry of Global Energy and Carbon Utilization (prereq: high school chemistry, or CHE 103, or CHE 106)
- EAR 405 Global Change: The Geological Record (no prereq)
- EAR 300 Earth Science of Energy (prereq: Introductory Earth Science, or major in Physical/Environmental Science + sophomore standing)
- PHY 305 Solar Energy Science and Architectures (coreq MAT 285)
- GEO 326 Geography of Climate and Weather (prereq GEO 155 or EAR 101)
- \* GEO 300 Geography of Oil
- GEO 327 Geography of Coastal Environments (prereq GEO 155)
- \* GEO 400 Energy, History, and Society
- \* ECN 437 Environmental and Resource Economics (no prereq)
- EST 427 Environmental and Energy Auditing (no prereq)
- BPE 441 Biomass Energy
- MAE 551 Energy Conversion (no prereq)
- MAE 587 Design of Solar Energy Systems (no prereq)
- \* PAF 451 Environmental Policy (no prereq)
- \* PSC 302 Environmental Politics and Policy (prereq PSC 121)

#### PHY 398 JUNIOR SEMINAR:

This one-credit course for junior majors in Energy and Its Impacts will focus student attention on the range of interdisciplinary problems associated with energy use and its impact on the natural and social environment.

#### PHY 498 CAPSTONE SEMINAR:

The capstone seminar (3 credits) will involve students in an interdisciplinary investigation of energy and its impacts. Term project carried out by teams that include at least one student each from Natural Sciences (or Engineering) and from Maxwell. Projects will focus on energy issues that arise in the Syracuse community.

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## English And Textual Studies Major

Patricia Roylance, Director of Undergraduate Studies  
401 Hall of Languages  
315-443-9488

Faculty Crystal Bartolovich, Michael Burkard, Dympna Callaghan, Susan Edmunds, Carol Fadda-Conrey, Arthur Flowers, Chris Forster, Ken Frieden, Mike Goode, Roger Hallas, Chris Hanson, Brooks Haxton, Mary Karr, Christopher Kennedy, Claudia Klaver, Erin S. Mackie, Patricia Moody, Kevin Morrison, Donald E. Morton, Patricia Roylance, George Saunders, Stephanie Shirilan, Bruce Smith, Dana Spiotta, Harvey Teres, Silvio Torres-Saillant, David Yaffe

The Department of English offers programs in textual and cultural studies, with special emphasis on literary history, criticism, and theory. Courses deal with such problems as the nature and implications of reading and interpretation, the production of meaning in language and culture, and the nature of literary forms. The curriculum also includes courses in creative writing.

Students who wish to major in English and Textual Studies should consult the Associate Director of Undergraduate Studies to be assigned an appropriate advisor, who helps plan the course of study.

Some students majoring in English and Textual Studies may wish to pursue a concentration in either Creative Writing or Film and Screen Studies.

Some students majoring in English and Textual Studies may wish to apply for a dual enrollment with another school or college within the University, such as the School of Information Studies, the S.I. Newhouse School of Public Communications, or the School of Education. Those interested in certification to teach English should see “Education/Arts and Sciences (dual program)” in the School of Education's Academic Offerings.

Students must have departmental approval to become candidates for honors or distinction in English and Textual Studies. For more information, see the web site at [english.syr.edu](http://english.syr.edu).

## MAJOR REQUIREMENTS

To qualify for a B.A. degree in English and Textual Studies, students complete a total of 30 credits of coursework. These credits include ETS 242 and one course chosen from among the following: ETS 113, 114, 115, 117, 118, 119, 121, 122, 142, 145, 146, 151, 152, 153, 154, 155, 181, 182, 184, and 192. (Advanced Placement credit does not count toward this requirement.) The remaining 24 credits are in courses numbered above 299 and must include ETS 305. Five other courses (15 credits) are chosen from among upper division courses other than creative writing workshops (ETS 401 and 403). Two of these five courses must focus predominantly on texts produced before 1900. The remaining two courses (6 credits) are considered major electives and may be chosen from among upper division courses or advanced creative writing workshops (ETS 401 and 403). One of the major elective courses may be a Writing Program course (WRT) or a Literature in Translation course (LIT) numbered above 299.

Students dually enrolled in the School of Education include the following among the 24 credits of upper-division courses: ETS 325; a course in Shakespeare; a course with multicultural content; and either WRT 301, 303, 307, or 428.

Students pursuing a concentration in Film and Screen Studies within the ETS major must meet the 100-level requirement by taking ETS 145, ETS 146, or ETS 154. Three of the five upper division ETS critical courses taken must focus on film and screen studies (as indicated by the terms “Film,” “Cinema,” “Media,” and/or “Screen” in the section title). One major elective must be an upper division film or screen studies course, either from ETS or an approved course from another department.

Students pursuing a concentration in Creative Writing within the ETS major must take either ETS 215 or ETS 217 as a prerequisite to declaring the concentration. ETS 151 or 153 must be taken to meet the 100-level major requirement. One of the five upper division ETS critical courses taken must be ETS 301, ETS 303, or ETS 304. Both major electives must be advanced creative writing workshops (ETS 401 or ETS 403).

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## English And Textual Studies Minor

Patricia Roylance, Director of Undergraduate Studies  
401 Hall of Languages  
315-443-9488

Faculty Crystal Bartolovich, Michael Burkard, Dympna Callaghan, Susan Edmunds, Carol Fadda-Conrey, Arthur Flowers, Chris Forster, Ken Frieden, Mike Goode, Roger Hallas, Chris Hanson, Brooks Haxton, Mary Karr, Christopher Kennedy, Claudia Klaver, Erin S. Mackie, Patricia Moody, Kevin Morrison, Donald E. Morton, Patricia Roylance, George Saunders, Stephanie Shirilan, Bruce Smith, Dana Spiotta, Harvey Teres, Silvio Torres-Saillant, David Yaffe

The Department of English offers programs in textual and cultural studies, with special emphasis on literary history, criticism, and theory. Courses deal with such problems as the nature and implications of reading and interpretation, the production of meaning in language and culture, and the nature of literary forms. The curriculum also includes courses in creative writing.

## MINOR IN ENGLISH AND TEXTUAL STUDIES

The ETS minor requires 18 credit hours of coursework (generally, six courses). Six credit hours (two courses) must be in courses at the 100 or 200 level (lower division) and twelve credits (four courses) must be in courses numbered 300 or above (upper division). The department recommends that one of the lower division courses be ETS 242: Reading and Interpretation. Students may include among their upper division courses either one approved course offered by the Writing Program (WRT) numbered 300 or above, or one approved Literature in Translation course (LIT)

numbered 300 or above.

Please note that Advanced Placement credits do NOT count toward the lower division credit requirements for an ETS minor.

#### Declaring a minor

To declare an ETS minor, student's should complete the Declaration of Minor form ([http://syr.edu/registrar/forms/Declaration\\_of\\_Minor.pdf](http://syr.edu/registrar/forms/Declaration_of_Minor.pdf)) and then bring the form to the English Undergraduate Office (401 Hall of Languages) for the signature of the Undergraduate Coordinator. A copy of the form must be filed with the student's home college.

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## English And Textual Studies Secondary Teacher Preparation

Combined Bachelor's/Master's Degrees in English and Textual Studies and Secondary (English) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall, [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for English Language Arts (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History(TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## English Education

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey ([pkhachey@syr.edu](mailto:pkhachey@syr.edu)) or Carol Radin ([cvradin@syr.edu](mailto:cvradin@syr.edu)), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the

content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

#### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

#### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)

- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

## Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

## Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

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## Page 2 Of English Education

Contact: Marcelle Haddix, 200 Huntington Hall, 315-443-4755 or mhaddix@syr.edu

In addition to the professional education requirements, students in English education complete a major in English and Textual Studies and the following requirements:

### Core Requirements

Secondary English education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- WRT 205 Writing Studio 2 OR
- WRT 209 Writing Studio 2 (Honors) (3 credits)
- One mathematics (MAT) course from Liberal Arts Core Quantitative Skills List (3 credits)
- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts related course within Arts and Sciences (HOA or HOM, or other approved humanities course focusing on one or more of the arts) (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study

### English Content

English Education students must complete the English and Textual Studies major as defined by the English Department. Twenty-four credits of the 30 required must be upper-division (300 level and above).

English Education students must include the following courses (not required of other ETS majors) within their majors:

- ETS 325 History and Varieties of English (3 credits)
- One course concentrating on Shakespeare (3 credits)
- One course with a multicultural (non-Western/ American minority) emphasis (3 credits)
- One upper division WRT course, chosen from WRT 301, 303, 307, OR 428 (3 credits)

In addition, students must complete one speech communication course from the following:

- CRS 225 Public Advocacy (3 credits)
- CRS 325 Presentational Speaking (3 credits)

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## Environment And Society

### Environment and Society Minor

Robert Wilson, Coordinator  
Department of Geography  
533 Eggers Hall  
315-443-9433

The Environment and Society (E&S) minor examines the social dimensions of environmental issues and sustainability. Through a range of interdisciplinary course offerings, it seeks to foster environmental literacy and citizenship among students. Those completing the minor will gain a deep understanding of the political, cultural, and economic factors that affect our use of the environment. Courses in the minor draw primarily from the social sciences and humanities and ask a variety of questions. Who determines how the environment is used? How has the way we value nature and wildlife changed over time? How do social divisions influence who is affected by climate change, pollution, or natural disasters? How can we create a more sustainable society?

The Environment and Society minor is an excellent accompaniment to majors in other fields. For those interested in the natural sciences, the minor offers perspectives on the social dimensions of nature less emphasized in science courses. For those interested in public policy and economics, it allows students to delve more deeply into environmental matters. For those interested in business, finance, or management, the minor offers an opportunity to learn more about the relationships between environment, economy, and society. Finally, for those seeking a future in the media, it enables students to learn more about the environmental issues they will report on during their career. In short, the E&S minor is a program for those who care about nature and want to find solutions to environmental problems. It is also a way for students to document their knowledge and expertise in environmental issues for the growing number of 'green' jobs and industries.

### MINOR REQUIREMENTS

The program leading to a minor in Environment and Society requires the completion of six courses (18 credits), two of which are mandatory and four of which are electives. Of the four elective courses for the minor, two must be in departments outside Geography. Students should work closely with their major advisor and the E&S minor coordinator to ensure they are meeting the necessary requirements for both programs.

Minors must take the following TWO lower-division courses:

GEO 103 Environment and Society  
GEO 155 The Natural World

Minors must take FOUR of the following courses, at least two of which must be from departments outside Geography. Please note that many courses offered through SU Abroad may also count toward the minor and that this list is subject to change as new relevant courses are created:

BIO 415 Conservation Biology  
CIE 274 Civil and Environmental Systems  
CIE 341 Introduction to Environmental Engineering  
ECN 437 Environmental & Resource Economics  
ECS 354 Green Technology and Sustainability  
EDU 300 601 Tully Project  
GEO 215 Global Environmental Change  
GEO 300 Animals and Society  
GEO 314 Hazardous Geographic Environments  
GEO 316 River Environments  
GEO 317 Geography of Mountain Environments  
GEO 318 Tropical Environments  
GEO 319 Cold Environments  
GEO 326 Geography of Climate and Weather  
GEO 327 Coastal Environments  
GEO 347 Art and Environment in American Culture Since 1800  
GEO 353 Geographies of Environmental Justice  
GEO 354 American Environmental History and Geography  
GEO 356 Environmental Ideas and Policy  
GEO 374 Environment and Development in the Global South  
GEO 482 Environmental Remote Sensing  
GEO 455 Biogeography  
GEO 583 Environmental Geographical Information Science  
HNR 350 Water for Gotham  
HTW 303 Community and Environmental Health  
LPP/SHR 450 Sustainable Enterprise  
NSD 555 Food, Culture, and Environment  
PAF 451 Environmental Policy  
PHI 394 Environmental Ethics

PSC 302	Environmental Politics and Policy
PSC 318	Technology, Politics, and Environment
REL 395	Religions and the Natural World
SOC 400	Environmental Sociology

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## Integrated Learning Major In Ethics

### Integrated Learning Major in Ethics

Contact: Ben Bradley  
 541 Hall of Languages  
 315-443-5813  
 wbradley@syr.edu

Professionals in technically demanding fields are commonly asked to apply their expertise to other seemingly unrelated disciplines. As a result, they must have a comprehensive understanding of not only their own field, but also secondary knowledge of another broadly based, often interdisciplinary, field of study. A chemist might lend his or her expertise to a matter of legal or ethical importance. A curator might evaluate scientific and historical evidence about a painting's authenticity. A journalist might research a story involving science, medicine, and technology.

The major in Ethics will integrate with the following majors: management, television/radio/film, broadcast/newspaper journalism, engineering, computer science, biology, biomedical and chemical engineering, political science, public health, anthropology, psychology, sociology, and international relations, but other combinations requisite majors may also be possible with approval of the director.

This synergistic approach adds scholarly mettle to both the major and the interdisciplinary program, while exploiting their connective properties. First- and second-year courses contemplating the Integrated Learning Program in Ethics are advised to take one of the following courses: ANT 185, PHI 191/192/209, REL 252, or WGS/SOC 230.

Admittance requires an overall 3.0 GPA and a B or better in both PHI 391 and PHI 393.

#### Requirements:

Students must successfully complete all the requirements necessary to obtain a major in one of the following: Management, Television/Radio/Film, Broadcast/Newspaper Journalism, Engineering, Computer Science, Biology, Biomedical and Chemical Engineering, Political Science, Public Health, Anthropology, Psychology, Sociology, and International Relations, but other requisite majors may also be possible with approval of the director.

To complete, 24 credits of approved ethics courses are required. Of those, at least 18 must be numbered 300 or higher. In addition, there are the following specific requirements:

(1) two courses in contemporary and historical philosophical theory: PHI 391 and 393;

(2) one ethics course related to the student's requisite major (from A), and another course that deals with ethical issues from outside of the requisite major's division, from courses listed in (B) or (C), as described below:

(A) Required Course from the requisite major:

- Management - LPP 467 Management and Ethics, plus one course from (B) or (C)
- Journalism - COM 411 Social and Public Issues in Public Communications, plus one course from (B) or (C)
- Television/Radio/Film - PHI 293 Ethics in Entertainment Media, plus one course from (B) or (C)
- Political Science/International Relations - PSC/PHI 363 Ethics and International Relations, plus one course from (C)
- Biology, Biomedical and Chemical Engineering - REL 552/PHI 594 Bioethics, plus one course from (B)
- Engineering, Computer Science - ECS 392 - Ethical Aspects of Engineering and Computer Science, plus one course from (B) or (C)
- Environmental Engineering - PHI 394 Environmental Ethics, plus one course from (B) or (C)
- Public Health - HTS 415/615 Pre-health or PHI 593/REL 551 Ethics and the Health professions, plus one course from (B)
- Anthropology REL 552/PHI 594 Bioethics or PSC/PHI 363 Ethics and International Relations, plus one course from (C)
- Psychology - PSY 395 Abnormal Psychology, or PSY 415 Introduction to Clinical Psychology, or PSY 425 Internships in Clinical Psychology, or PSY 445 Behavior Disorders in Children, plus one course from (C)
- Sociology – SOC 319 Qualitative Methods, plus one course from (C)

(B) SOC 319 Qualitative Methods in Sociology

- ANT 442 Methods in Archaeology
- ANT 445 Public Policy and Archaeology
- ANT 481 Ethnographic Techniques
- PSY 395 Abnormal Psychology
- PSY 415 Introduction to Clinical Psychology
- PSY 425 Internships in Clinical Psychology
- PSY 445 Behavior Disorders in Children

- (C) PHI 293 Ethics and the Media Professions
- PSC/PHI 363 Ethics and International Relations
- PHI 394 Environmental Ethics
- PHI 594/ REL 552 Bioethics
- PHI 593/REL 551 Ethics and the Health professions

(3) PHI 495 Senior Capstone Project for Ethics

(4) three additional courses from the list below. (remember that at least 18 credits must be completed in courses numbered 300 or higher in order to fulfill this requirements of the degree).

Lower-division courses

- ANT 185 Global Encounters
- PHI 191 Modern Moral Dilemmas (formerly Ethics and Value Theory)
- PHI 192 Introduction to Moral Theory (proposed new course)
- PHI 209 Introduction to Moral Philosophy (Honors)
- PHI 293 Ethics and the Media
- REL 252 Religious Ethics and Social Issues
- WGS/SOC 230 Intergroup Dialogue

Upper-division courses

- ANT 372 Issues in Intercultural Conflict and Communication
- ANT 442 Methods in Archaeology
- ANT 445 Public Policy and Archaeology
- ANT/NAT 459/659 Contemporary Native North American Issues
- ANT 475 Culture and Disputing
- ANT 477 Culture and Conflict
- ANT 481 Ethnographic Techniques
- COM 411 Social and Public Issues in Public Communications
- ECS 392 Ethical Aspects of Engineering and Computer Science
- GEO 353 Geographies of Environmental Justice
- HT W 415/615 Public Health Ethics (proposed new course)
- LPP 467 Management and Ethics
- PAF 351 Global Social Problems
- PHI 391 History of Ethics
- PHI 393 Contemporary Ethics
- PHI 394 Environmental Ethics
- PHI 417/PSC 382 Contemporary Political Philosophy
- PHI 493 Contemporary Ethical Issues
- PHI 550/PSC 400 Decision Theory
- PHI 593/REL 551 Ethics and the Health Professions
- PSC 354 Human Rights and Global Affairs
- PSC/PHI 363 Ethics and International Relations
- PSY 395 Abnormal Psychology
- PSY 415 Introduction to Clinical Psychology
- PSY 425 Internships in Clinical Psychology
- PSY 445 Behavior Disorders in Children
- REL 359/PHI 396/BIO 396 Stem Cells and Society
- REL 552/PHI 594 Bioethics
- SOC 319 Qualitative Methods
- SOC/WGS 364 Aging and Society
- SOC 377 Class, Status, and Power
- SOC/WGS 433 Race, Class, and Gender
- SOC/NAT 441 Federal Indian Policy and Native American Identity
- SOC/WGS 492 Work and Inequality

Other courses as approved by the director of the Ethics major.

## European Literature Major

Contact: Kathryn Everly  
 Languages, Literatures, and Linguistics  
 329 H.B. Crouse  
 315-443-2042

Faculty Jeffrey S. Carnes, Kathryn Everly, Ken Frieden, Alejandro Garcia, Stefano Giannini, Hope Glidden, Erika Haber, Karl Solibakke, Matthieu H. van der Meer, Karina von Tippelskirch, Amy S. Wyngaard

Students seeking a B.A. in European literature take 36 credits in literature courses numbered above 250, selected from two or three of the following areas: French, German, Greek, Italian, Latin, Russian, and Spanish. Courses may be distributed to include 18 credits in each of two different literatures or 12 in each of three literatures. Up to 6 credits in the literature of each area may be taken in translation, but the total of courses in literature in translation may not exceed 12 credits.

Study Abroad highly recommended at appropriate SU Abroad European centers.

For the European Literature major, each degree candidate will formulate in conjunction with the faculty advisor or contact a personalized curriculum to fulfill the credit requirements.

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## Fine Arts Major

Theo Cateforis, Chair  
315-443-4184

Suite 308 Bowne Hall

Amanda Eubanks Winkler, Undergraduate Director for Music History & Cultures  
Suite 308 Bowne Hall  
315-443-4584

Romita Ray, Undergraduate Director for Art History  
Suite 308 Bowne Hall  
315-443-5030

Faculty Molly Bourne, Luis Castañeda, Theo Cateforis, Laurinda Dixon, Rodney Foster, Wayne Franits, Jeehee Hong, Sydney Hutchinson, Richard Ingersoll, Bette Kahler, Matilde M. Mateo, Alick McLean, Stephen Meyer, Jonathan Nelson, Gary M. Radke, Romita Ray, Sascha Scott

Students pursuing a degree in Fine Arts are required to complete 30 credits of coursework: 12 at the lower division and 18 at the upper division.

Lower division requirements (12 credits)

- 1) HOM 125: Introductory Music Theory (3 credits)
- 2) HOA 105: Arts and Ideas I
- 3) HOA 106: Arts and Ideas II
- 4) One of the courses from the following list. A 200-level HOM course may count by petition:
  - HOM 165: Understanding Music I
  - HOM 166: Understanding Music II
  - HOM 195: Performance Live

Upper division requirements (18 credits)

Students must take 6 courses at the 300-level or above. 3 of these courses must be HOM and 3 of them must be HOA.

Students may count 3 credits of studio art, music lessons or ensemble toward the upper division requirement. Students may petition to have 3 credits of appropriate coursework in art history and 3 credits of appropriate coursework in music history taken outside the department (non-HOA-HOM courses) count towards the fine arts major. 18 credits, 12 at the 300 or higher level

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## Fine Arts Minor

Minor in Fine Arts  
Theodore Philip Cateforis, Chair  
308 Bowne Hall  
315-443-4835

Romita Ray, Undergraduate Director for Art History  
Suite 308 Bowne Hall  
315-443-5030

Theo Cateforis, Undergraduate Director for Music History & Cultures  
Suite 308 Bowne Hall

Faculty Carol Babiracki, Molly Bourne, Luis Castañeda, Theo Cateforis, Laurinda Dixon, Rodney Foster, Wayne Franits, Jeehee Hong, Sydney Hutchinson, Richard Ingersoll, Bette Kahler, Matilde M. Mateo, Alick McLean, Stephen Meyer, Jonathan Nelson, Gary M. Radke, Romita Ray, Sascha Scott, Amanda Winkler

The minor in Fine Arts requires 18 credits of coursework. 12 of these credits must be earned in upper-level HOA or HOM courses (300 level and above) drawn from any combination of the department's constitutive disciplines (art history, music history, and history of architecture). Up to 6 credits of coursework may be earned in 200-level HOA or HOM courses. Students may also petition to have up to 6 credits of appropriate courses in these disciplines taken outside the department count toward the minor.

## Forensic Science Minor

Forensic Science  
 Michael Sponsler  
 forensics@syr.edu  
 315-443-0326

Syracuse University's curricular programs in forensic science, supported by the Forensic and National Security Sciences Institute in the College of Arts and Sciences, apply broad interdisciplinary scientific research and theory to real-world legal and security issues. Students can pursue an M.S. in Forensic Science, a combined M.S. in Forensic Science and J.D. in Law, an M.S. in Biomedical Forensic Sciences, a Certificate of Advanced Study in Medicolegal Death Investigation, an undergraduate Integrated Learning Major in Forensic Science, a Minor in Forensic Science, or a Certificate in Medicolegal Death Investigation.

### Minor in Forensic Science

The minor in forensic science provides students with an understanding of the fundamental concepts and principles behind the application of scientific techniques to forensic investigations and to the criminal justice system. Recent advances in basic scientific research have had a rapid and dramatic impact in these fields and it is only through an understanding of these fundamental scientific concepts that the legal system may be effective in criminal investigations. A minor in forensic science offers a strong complement for students interested in criminal justice to major areas of study such as anthropology, biology, chemistry, physics, geology, psychology, engineering, pre-medicine, sociology, and pre-professional degree programs. The minor in forensic science is open to all students at Syracuse University.

### REQUIREMENTS

The minor in forensic science requires 18 credits that include:

- CHE 113 Introduction to Forensic Science
- FSC 406 Advanced Forensic Science

One course from among the following:

- FSC 431 Statistics for the Forensic Sciences
- FSC 444 Forensic Chemical Analysis\*\*
- MAT 221 Elementary Probability and Statistics
- PSY 252 Statistical Methods II

And selection of 3 courses from among the following (any FSC course may be used even if not listed):

- ANT 433 Human Osteology
- ANT 436 Bioarchaeology
- ANT 434 Anthropology of Death
- BIO 326 Genetics
- BIO 462 Molecular Genetics
- CHE 335 Chemical and Biochemical Analysis
- CHE 575 Organic Spectroscopy
- FSC 300 Introduction to Forensic Anthropology
- FSC 435 Medicolegal Death Investigation I
- FSC 440 Special Topics in Forensic Science\*
- FSC 444 Forensic Chemical Analysis\*\*
- FSC 451 Forensic Pathology
- FSC 452 Forensic Mental Health
- FSC 453 Forensic Toxicology
- FSC 457 Principles of Human Toxicology
- FSC 461 Firearms and Impression Evidence

- FSC 462 Forensic Entomology
- FSC 463 Bloodstain Pattern Analysis
- FSC 465 Latent Prints
- FSC 467 Forensic Photography
- FSC 468 Crime Scene Investigation
- FSC 490 Independent Study
- NUC 520 Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation
- PSY 474 Forensic Psychology
- SOC 334 Criminal Justice
- SOC 397 Criminology

\*FSC 440 can be taken multiple times with different topics

\*\* FSC 444 cannot count for both requirements

## Integrated Learning Major In Forensic Science

Integrated Learning Major in Forensic Science

Contact: Prof. Michael Sponsler, 315 443-0326 forensics@syr.edu

Professionals in technically demanding fields are commonly asked to apply their expertise to other seemingly unrelated disciplines. As a result, they must have a comprehensive understanding of not only their own field, but also secondary knowledge of another broadly based, often interdisciplinary, field of study. A chemist might lend his or her expertise to a matter of legal or ethical importance. A curator might evaluate scientific and historical evidence about a painting's authenticity. A journalist might research a story involving science, medicine, and technology.

Integrated Learning Majors provide broad, interdisciplinary opportunities for students through valuable tools and knowledge in a variety of fields. This synergistic approach adds scholarly mettle to both the major and the interdisciplinary program, while exploiting their connective properties. For example, an undergraduate interested in chemistry could have an integrated learning program in forensic science. Or a student pursuing archeology could have an integrated learning major in ethics, with focus on social science research.

Required: GPA of at least 2.0; and complete all the requirements of one of the following majors: Anthropology, Biology, Biochemistry, Chemistry, Earth Sciences, Physics, Psychology, and Sociology. Other requisite majors will be considered based on student proposals that include appropriate connection courses and with the approval of the director.

Required Entry Courses:

- CHE 113 Introduction to Forensic Science 4
- FSC 406 Advanced Forensic Science 3
- MAT 221 Elementary Probability and Statistics or FSC 431 Statistics for the Forensic Sciences (PSY 252 may be taken instead by PSY majors)

Connection Courses: must take one designated for the primary major

- ANT 433 Human Osteology or ANT 436 Bioarchaeology 3 (for ANT majors)
- FSC 444 Forensic Chemical Analysis 4 or BIO 326 Genetics 3 (for BIO, BCM majors)
- FSC 444 Forensic Chemical Analysis 4 (for CHE, EAR, PHY majors)
- PSY 474 Forensic Psychology or FSC 452 Forensic Mental Health 3 (for PSY majors)
- SOC 334 Criminal Justice or SOC 397 Criminology 3 (for SOC majors)

Electives: three courses; any FSC course may be used even if not listed; courses used for other requirements cannot be also counted as electives

- ANT 433 Human Osteology 3
- ANT 434 Anthropology of Death 3
- ANT 436 Bioarchaeology 3
- BIO 326 Genetics 3
- BIO 462 Molecular Genetics 3
- CHE 335 Chemical and Biochemical Analysis 4
- CHE 575 Organic Spectroscopy 3
- FSC 300 Introduction to Forensic Anthropology 3
- FSC 435 Medicolegal Death Investigation I 3
- FSC 440 Special Topics in Advanced Forensic Science 3 (May take any number of times with different topics)
- FSC 444 Forensic Chemical Analysis 4
- FSC 451 Forensic Pathology
- FSC 452 Forensic Mental Health 3
- FSC 453 Forensic Toxicology
- FSC 457 Principles of Human Toxicology
- FSC 461 Firearms & Impression Evidence
- FSC 462 Forensic Entomology

- FSC 463 Bloodstain Pattern Analysis
- FSC 465 Latent Prints
- FSC 467 Forensic Photography
- FSC 468 Crime Scene Investigation
- FSC 490 Independent Study 3
- NUC 520 Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation
- PSY 474 Forensic Psychology 3
- SOC 334 Criminal Justice
- SOC 397 Criminology 3

#### Required Capstone

- FSC 498 Capstone Seminar in Forensic Science 3

Total credits 25 or 26

This Integrative Learning Major is intended to provide a broad exposure to the field of forensic science, increasing employability in a variety of careers that relate to forensic science. However, this major will not generally be sufficient to prepare students for forensic laboratory positions unless it is paired with a chemistry, biochemistry, or biology major.

## French And Francophone Studies Major

Contact: Hope Glidden  
 Languages, Literatures, and Linguistics  
 340 H.B. Crouse  
 315-443-2175.

Faculty Hope Glidden, Jean Jonassaint, Amy S. Wyngaard

The B.A. in French and Francophone Studies enables students to become fluent in French and provides a broad knowledge of French and Francophone literature and culture. Lower-division courses emphasize the acquisition of language skills. Upper-division courses focus on developing language fluency and introducing students to a variety of critical approaches to analyzing French and Francophone literature and culture. FRE 202 is normally a prerequisite for advanced courses.

All students with any previous instruction in or experience with French are required to take a placement examination, available online through myslice, which is accessible via the department's website, with one's netid and password. This requirement applies to all students, regardless of class standing.

Students interested in majoring or minoring in French should consult the French and Francophone Studies major advisor as early as possible. Early consultation is particularly important for students with little or no preparation in French so they may be sure to satisfy prerequisites and requirements within four years.

#### STUDY ABROAD

To become fluent in French and gain insight into a Francophone country and its people, students are encouraged to study abroad for a semester or a year in Syracuse's program in Strasbourg, France. Students take fully accredited courses abroad in language, literature, fine arts, history, political science, and other approved areas of study. In Option I, courses are taught at the Syracuse University center in both English and French. In Option II, students study at the Institut International d'Etudes Françaises, part of the Université Marc Bloch. In Option III students are directly placed at the Université Marc Bloch and Université Robert Schuman. For further information, contact the French program coordinator or Syracuse University Abroad, 106 Walnut Place.

#### MAJOR REQUIREMENTS

The major in French and Francophone Studies consists of FRE 202 plus 27 upper-division credits taught in French. Students must complete at least 21 credits in upper-division FRE courses. At least 6 credits of 300-level FRE courses must be taken before entering any 400-level FRE course. At least 12 credits of 400-level FRE courses are required for the major. Up to 6 upper-division credits may be taken outside of the French and Francophone Studies program in courses on related French or Francophone topics, with prior approval of the major advisor.

## French And Francophone Studies Minor

Contact: Hope Glidden (315) 443-2175 340 HB Crouse

Faculty Hope Glidden, Jean Jonassaint, Amy S. Wyngaard

#### MINOR IN FRENCH

A minor in French and Francophone Studies consists of a minimum of 19 credits including FRE 202 and 15 upper-division credits in FRE courses. At least 6 credits of 300-level FRE courses must be taken before entering any 400-level FRE course. At least 6 credits of 400-level FRE courses are required for the minor.

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## Geography Major

Contact: Robert Wilson  
Director of Undergraduate Studies  
533 Eggers Hall  
315-443-9433

Faculty Jacob Bendix, Peng Gao, Matthew Huber, Natalie Koch, Susan W. Millar, Don Mitchell, Mark Monmonier, Anne E. Mosher, Thomas Perreault, Jane M. Read, David J. Robinson, Jonnell Robinson, Tod D. Rutherford, Farhana Sultana, John C. Western, Robert M. Wilson, Jamie L. Winders

Have you ever wondered why the world works the way it does? So do geographers, who study everything from economic, political, and cultural relations within and between countries, to environmental practices of different groups of people, to the physical and biological processes of the planet – in brief, the spatial aspects of human life and the natural environment. Geographers excel in social theory, application, analysis, and intervention. At Syracuse University, geographers study globalization, environmental change and history, mapping and spatial techniques, immigration, urban and cultural politics, social movements, and surface processes of the physical environment. As a major, geography gives you a range of skills AND a new perspective on the world. Because geographers research issues such as sustainable development, gender equity, and environmental change, geography provides tools not only to understand the world but also to change it!

Geography is easy to pair with another major, such as international relations or biology, or a degree from another college, such as the Newhouse School of Public Communications or Smith College of Engineering and Computer Science. After graduation, geography majors do very well. Students find jobs in emergency management, federal and state environmental agencies, GIS and cartography, urban planning, non-profit organizations, community and international development, teaching and research, journalism, real-estate analysis, environmental consulting, and other fields. The Geography Department also offers research opportunities for undergraduates. Our majors work with community groups to address concerns like hunger, youth resources, and public transportation. They complete exciting senior theses on topics from political change in East Africa to water management in Central America. Finally, majors can take advantage of internships or study-abroad opportunities to obtain course credits while gaining valuable work and international experience.

### MAJOR REQUIREMENTS

The program leading to a B.A. in geography requires at least 33 credits in geography, 21 of which must be at the upper division (i.e. 300-level or above).

Majors must take the following THREE lower-division courses:

GEO 103 Environment and Society  
GEO 155 The Natural Environment  
GEO 171 Human Geographies

Majors must take ONE of the following four techniques courses:

GEO 381 Cartographic Design  
GEO 383 Geographic Information Systems  
GEO 386 Quantitative Geographic Analysis  
GEO 482 Environmental Remote Sensing

Majors must also complete the following capstone course:

GEO 491 Senior Seminar in Geography

Majors are encouraged to concentrate the remainder of their credits in one of five tracks:

Environmental Systems and Landscape Dynamics

GEO 215 Global Environmental Change  
GEO 314 Hazardous Geographic Environments  
GEO 316 River Environments  
GEO 317 Mountain Environments  
GEO 318 Tropical Environments  
GEO 319 Cold Environments

GEO 326 Weather and Climate  
GEO 327 Coastal Environments  
GEO 400 Geography of the Anthropocene  
GEO 455 Biogeography  
GEO 583 Environmental GIS  
plus, Appropriate Topics Courses (GEO 200, 300, 400, 500)

#### Nature, Society, Sustainability

GEO 203 Society and the Politics of Nature  
GEO 215 Global Environmental Change  
GEO 314 Hazardous Geographic Environments  
GEO 316 River Environments  
GEO 317 Mountain Environments  
GEO 318 Tropical Environments  
GEO 319 Cold Environments  
GEO 340 Geography of Oil  
GEO 353 Environmental Justice  
GEO 354 American Environmental History and Geography  
GEO 356 Environmental Ideas and Policy  
GEO 358 Animals and Society  
GEO 374 Environment and Development in the Global South  
GEO 400 Geographies of Water  
GEO 400 Urban Environment History  
GEO 415 Food: A Critical Geography  
GEO 430 Energy, History and Society  
plus, Appropriate Topics Courses (GEO 200, 300, 400, 500)

#### Globalization, Development and Citizenship

GEO 105 World Regional Geography  
GEO 200 Cities of the World  
GEO 272 World Cultures  
GEO 273 World Political Economy  
GEO 311 The New North Americas  
GEO 321 Latin American Development: Spatial Aspects  
GEO 325 Colonialism in Latin America  
GEO 340 Geography of Oil  
GEO 361 Global Economic Geography  
GEO 367 Gender in a Globalizing World  
GEO 372 Political Geography  
GEO 374 Environment and Development in the Global South  
GEO 388 Geographic Information & Society  
GEO 400 Geographies of Water  
GEO 400 Geopolitics of the Greater Middle East  
GEO 425 South Africa  
GEO 430 Energy, History and Society  
GEO 440 Race and Space  
GEO 450 Migration and Mobility  
GEO 463 Geography of Homelessness  
GEO 564 Urban Historical Geography  
GEO 573 Geography of Capital  
GEO 595 Geography of the Internet  
plus, Appropriate Topics Courses (GEO 200, 300, 400, 500)

#### Culture, Justice, and Urban Space

GEO 200 Cities of the World  
GEO 219 American Diversity & Unity (honors)  
GEO 272 World Cultures  
GEO 273 World Political Economy  
GEO 300 Public Space and the City  
GEO 311 New North Americas  
GEO 313 United States  
GEO 353 Environmental Justice

GEO 362 The European City  
GEO 367 Gender in a Globalizing World  
GEO 372 Political Geography  
GEO 400 Community Geography  
GEO 400 Urban Environmental History  
GEO 415 Food: A Critical Geography  
GEO 425 South Africa  
GEO 440 Race and Space  
GEO 463 Geography of Homelessness  
GEO 500 Geography of Memory  
GEO 500 Urban and Regional Planning  
GEO 564 Urban Historical Geography  
GEO 572 Landscape Interpretation  
GEO 573 Geography of Capital  
GEO 576 Gender, Space, & Place  
plus, Appropriate Topics Courses (GEO 200, 300, 400, 500)

Geographic Information Science: Analysis, Modeling, and Applications

GEO 381 Cartographic Design  
GEO 383 Geographic Information Systems  
GEO 386 Quantitative Geographic Analysis  
GEO 388 Geographic Information and Society  
GEO 400 Geospatial Technology and Privacy  
GEO 482 Environmental Remote Sensing  
GEO 485 Community Geography  
GEO 500 GIS and Hydrological Modeling  
GEO 583 Environmental GIS  
GEO 595 Geography of the Internet  
plus, Appropriate Topics Courses (GEO 200, 300, 400, 500)

#### DEGREE WITH DISTINCTION

Majors who meet certain academic requirements have the opportunity to graduate with distinction. To do so, students must meet minimum GPA requirements, carry out original research under the supervision of a geography professor, and write a Senior Thesis based on that research. This honor recognizes a student's achievement of academic excellence and is acknowledged on the diploma.

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## Geography Minor

Robert Wilson, Director of Undergraduate Studies  
533 Eggers Hall  
315-443-9433

Geographers are concerned with social, spatial, and environmental processes in human and natural systems. Their work focuses on critical theory, practical application, analysis, and interventions. Of central importance to the study of geography are relations between diverse social groups, as well as between people and their natural and human-built environments. Coursework for a Geography minor spans the social and natural sciences, and includes cartography, geographic information systems (GIS) and other technologies for analyzing spatial information. Many geography students combine majors and minors in other fields to prepare themselves for careers in environmental analysis and resource management, urban and regional development, international relations, conflict resolution, public service, and more.

#### MINOR IN GEOGRAPHY

To complete a minor in geography, students must complete 18 credits in geography courses, of which a minimum of 12 credits must be upper division (i.e. 300-level or above).

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## Geography Secondary Teacher Preparation

Combined Bachelor's/Master's Degrees in Geography and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these

areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## German Minor

Karina Von Tippelskirch  
340 H.B. Crouse  
315-443-2175  
Kvontipp@syr.edu

### MINOR IN GERMAN

The German Minor requires at least 18 credits beginning on the GER 201 level; at least 12 of the credits have to be taken on the 300 level and above.

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## German Language, Literature, And Culture Major

Contact: Karina Von Tippelskirch  
340 H.B. Crouse  
315-443-2175  
Kvontipp@syr.edu

Faculty Gerald R. Greenberg, Karina von Tippelskirch

This B.A. program offers instruction in German language, literature, and culture. GER 101,102 (or the equivalent) are prerequisites for GER 201 and for advanced-level courses. Upper-level courses provide in-depth study of German literature and culture and further development of linguistic skills.

All students with more than one year of high school German are required to take a placement examination. The requirement applies to all new Syracuse University students regardless of class standing or study elsewhere.

Students interested in studying German should consult the program coordinator of German as early as possible. Early consultation is particularly important for students with little or no preparation in German so they may be sure to satisfy prerequisites and requirements within four years.

### MAJOR REQUIREMENTS

The major in German consists of 27 credits including GER 202 plus at least eight upper-division courses taught in German.

### STUDY ABROAD

To become fluent in the language and experience the culture in the countries where German is spoken, students are strongly encouraged to study abroad for a semester or a year. Syracuse University's World Partner programs in Berlin, Freiburg and Graz enable students to take fully accredited classes in German language, literature and culture. The Freiburg Program, in collaboration with Colgate University, gives advanced German students the opportunity to take classes in German and in other fields of study such as history, international relations, journalism, and other electives in the arts and sciences. For further information, contact the German program coordinator or Syracuse University Abroad, 106 Walnut Place (<http://suabroad.syr.edu>).

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## Global Political Economy Minor

Terrell Anne Northrup, Coordinator  
Minor Coordinator  
225 Eggers Hall  
315-443-2306  
[northrup@syr.edu](mailto:northrup@syr.edu)

The minor in Global Political Economy (GPE) is an interdisciplinary program in the social sciences designed to help students explore all the dimensions and implications of globalization in contemporary international relations. The minor is administered by the International Relations Program and is open to all Syracuse University undergraduate students in good academic standing. International relations majors whose topic concentration is international political economy (IPE) are not eligible to take the Global Political Economy minor.

### REQUIREMENTS

The GPE minor consists of six (6) courses, eighteen (18) credits. These include two required introductory-level courses, PSC 124 International Relations and GEO 273 World Political Economy, plus 12 credits in courses numbered 300 or above, which must include one course in Economics, one in Geography, and one in Political Science or International Relations. Other advanced undergraduate courses (300-level or higher) designated in the International Political Economy (IPE) topic area of International Relations that are global (not national or regional) in scope may be accepted toward completion of the minor upon approval by the GPE Minor Coordinator in the International Relations Program. You may check the list of approved courses offered each semester at [http://www.maxwell.syr.edu/IR\\_Global\\_Political\\_Economy/](http://www.maxwell.syr.edu/IR_Global_Political_Economy/).

- ANT 357 Health, Healing and Culture
- ECN 365 The World Economy (prerequisite: ECN 101, 102, or 203)
- ECN 465 International Trade Theory & Policy (prerequisite: ECN 301 or 311)
- GEO 340 Geography of Oil
- GEO/ANT/WGS 367 Gender in a Globalizing World
- GEO 374 Environment and Development in the Global South
- GEO 415 Food: A Critical Geography
- GEO 440 Race and Space
- IRP 404 Global Political Economy Issues (IR in Washington, DC)
- PSC 351 Political Economy of Development
- PSC 355 International Political Economy
- PSC/AAS 365 International Political Economy of the Third World
- PSC 369 Global Migration
- SOC 415 Global Cities
- SOC 434 Globalization & Social Change

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## Global Security Studies

Terrie Northrup, Minor Coordinator  
225 Eggers Hall  
315-443-2306  
[northrup@syr.edu](mailto:northrup@syr.edu)

The minor in Global Security Studies (GSS) is an interdisciplinary program designed to help students explore the global, international, national, and human dimensions of security, conflict, and conflict resolution in contemporary international relations using the analytic tools provided in different social science disciplines. The minor is administered by the International Relations Program and is open to all Syracuse University undergraduate students in good academic standing. International relations majors whose topic concentration is international security and diplomacy (ISD) are not eligible to take the Global Security Studies minor. In addition, for students majoring in International Relations who wish to undertake the Global Security Studies minor, a maximum of three (3) lower division (below 300 level) credits may be shared between the major and the minor, and a maximum of six (6) upper-division (300 level or higher) credits may be shared between the major and the minor.

Minor Requirements: The Global Security minor consists of six (6) courses, eighteen (18) credits. These include two required introductory-level courses, either PSC 124 International Relations or HST 122 Global History 1750-Present to contextualize state security issues, and ANT 185 Global Encounters or GEO 171 Human Geographies to highlight human and environmental security issues. The minor then requires 12 credits in courses numbered 300 or above, which must include one 400-level course. To maintain a balanced focus on the different dimensions of security, these upper division courses must include

two (2) courses from List A, which focus on traditional issues of state security and two (2) courses from List B, which focus on human and environmental securities. You may check the lists of approved A & B courses offered each semester at [http://www.maxwell.syr.edu/IR\\_Global\\_Security\\_Studies/](http://www.maxwell.syr.edu/IR_Global_Security_Studies/)

List A:

ANT 358 Peace, War and Security  
GEO 372 Political Geography  
HST 337 America in the World: US Foreign Relations 1898-Present  
IRP 401 Global Policy Seminar  
IRP 402 Global Policy Practicum  
IRP 403 Global Issues  
IRP 412 Global Governance: The United Nations System  
PSC 357 US Foreign Policy  
PSC/AAS 364 African International Relations  
PSC/MES 367 Oil, Water, War  
PSC/MES 368 Islam & the West

List B:

ANT 358 Peace, War, Security  
ANT 463 Global Health  
ECN 437 Environmental and Resource Economics  
GEO 340 Geography of Oil  
GEO 372 Political Geography  
GEO 374 Environment & Development in the Global South  
GEO 415 Food: A Critical Geography  
PSC 387 Ethnic Conflict  
SOC/WGS 354/PSC 386 Gender, Militarism, and War  
SOC 362 Religion, Identity, and Power

Other advanced undergraduate courses (300-level or higher) in the social sciences that are not listed in the course catalog may be accepted toward completion of the minor upon approval by the International Relations Program. These courses will be listed on the Global Security Studies minor webpage at [http://www.maxwell.syr.edu/IR\\_Global\\_Security\\_Studies/](http://www.maxwell.syr.edu/IR_Global_Security_Studies/)

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## History Major

Contact: The History Department Office  
145 Eggers Hall  
315-443-2210 or 9926  
e-history@maxwell.syr.edu

Faculty Alan Allport, Susan Branson, Craig B. Champion, Andrew W. Cohen, Albrecht Diem, Michael R. Ebner, Carol Faulkner, Jeffrey Gonda, Paul M. Hagenloh, Samantha Kahn Herrick, Amy Kallander, George Kallander, Osamah F. Khalil, Radha Kumar, Norman A. Kutcher, Chris Kyle, Elisabeth D. Lasch-Quinn, Andrew Lipman, Laurie Marhoefer, Gladys McCormick, Dennis Romano, Mark G. Schmeller, Martin S. Shanguhya, Junko Takeda, Margaret Susan Thompson

Understanding history—the record of what people have thought, said, and done—is essential in understanding the world of today. Students explore not only events of the past, but also how they were shaped by such factors as religion, economics, and geography and how these factors influence our own lives. The curriculum, which leads to a B.A. in history, also provides rigorous training in research, analysis, and writing.

Students majoring in history are encouraged to take a foreign language.

### MAJOR REQUIREMENTS

The major requires 30 credits in history, 21 of which are in junior- and senior-level courses numbered 300 or higher. Students take six credits in one of the following basic survey sequences: HST 101,102 (U.S. history survey); HST 111,112 (modern Europe survey); HST 121,122 (global history survey); HST 210, 211, (ancient/medieval/ renaissance survey)

Of the 21 upper-division credits, 3 must be in HST 401 Senior Seminar.

Distribution requirement: The history department divides its course offerings into three broad categories: American, European, and Global. Students must take at least 3 credits (1 course) in each of these three areas.

Concentration requirement: Each student must complete a concentration, consisting of 15 credits (5 courses), in one of the three distribution areas. Lower-division survey courses and HST 401 can count toward this total. It is strongly encouraged, but not required, that the HST 401 fall within the student's area of concentration.

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## History Minor

Contact: The History Department Office  
145 Eggers Hall  
315-443-2210 or 9926  
e-history@maxwell.syr.edu

Faculty Alan Allport, Susan Branson, Craig B. Champion, Andrew W. Cohen, Albrecht Diem, Michael R. Ebner, Carol Faulkner, Jeffrey Gonda, Paul M. Hagenloh, Samantha Kahn Herrick, Amy Kallander, George Kallander, Osamah F. Khalil, Radha Kumar, Norman A. Kutcher, Chris Kyle, Elisabeth D. Lasch-Quinn, Andrew Lipman, Laurie Marhoefer, Gladys McCormick, Dennis Romano, Mark G. Schmeller, Martin S. Shanguhya, Junko Takeda, Margaret Susan Thompson

Understanding history—the record of what people have thought, said, and done—is essential in understanding the world of today. Students explore not only events of the past, but also how they were shaped by such factors as religion, economics, and geography and how these factors influence our own lives. The curriculum, which leads to a B.A. in history, also provides rigorous training in research, analysis, and writing.

### MINOR IN HISTORY

To complete a minor in history, students take 18 credits of history, including: 6 credits in lower-division and 6 credits in upper-division courses (300 or higher), all in a single general area of history (American, European, or Global). Minors must also take one additional subject area upper-division course and HST 401.

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## History Secondary Teacher Preparation

Combined Bachelor's/Master's Degrees in History and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall mrsarno@syr.edu

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## History Of Architecture Major

Theodore Philip Cateforis, Chair  
308 Bowne Hall  
315-443-4184

Matilde Mateo, Advisor  
Department of Art and Music Histories  
Suite 308 Bowne Hall  
315-443-5035  
Faculty Jean-François Bédard, Susan Henderson, Matilde M. Mateo

### MAJOR REQUIREMENTS

To fulfill the requirements of the Major in Architectural History, students must complete 30 credits of upper-division courses. Of the 30 total credits, 24 should be on history of architecture from the list below, 9 of which should be HOA courses and 15 of which should be ARC courses. The remaining 6 credits can be from the list below or any upper-division HOA courses. No credit for studio courses in art or music may be used for this major. Students may petition to have up to 9 credits of selected topics courses in architectural history (ARC or HOA) count toward the major.

Pre-Requisite: HOA 105/106 or ARC 133/134 (credits do not count towards the major)

The following courses offered by the School of Architecture (ARC) and the Department of Art and Music Histories (HOA) count as courses on History of Architecture:

Primarily HOA courses;

HOA 304 - Roman Art and Architecture  
HOA 396 - Art and Architecture of India  
HOA 405 - The Mediterranean City: Architectural Ritual and Power (Florence Center)  
HOA 410 - Art and Ideology in Medieval Spain  
HOA 412 - The Gothic Spell  
HOA 520 - Italian Urbanism: 100 Cities (Florence Center)

Primarily ARC courses;

ARC 332/HOA 323 - Sixteenth Century Italian Architecture  
ARC 334 - The Architecture of Revolutions: European Architecture from the Scientific to the Industrial Revolution  
ARC 335/HOA 322 - Early Renaissance Architecture in Italy  
ARC 336/HOA 324 - Italian Seventeenth Century Architecture  
ARC 337/HOA 374 - American Architecture, Settlement to 1860  
ARC 338/HOA 375 - American Architecture, 1860-World War I  
ARC 431/HOA 479 - Modern Architecture  
ARC 432/HOA 419 - The City in Architectural History  
ARC 433/HOA 439 - French Architecture, Sixteenth and Seventeenth Centuries  
ARC 435/HOA 389 - Islamic Architecture  
ARC 436/HOA 475 - Modern Architecture: The International Style to the Present

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## History Of Architecture Minor

Theo Cateforis, Chair  
308 Bowne Hall  
315-443-4184

Matilde Mateo, Advisor  
Department of Art and Music Histories  
Suite 308 Bowne Hall  
315-443-5035

### Requirements

The Minor in Architectural History requires 18 credits of coursework. These courses must be upper-level (300 level and above), of which 15 need to be from the list below. Of these 15 credits, 6 must be HOA courses taken at the Department of Art & Music Histories, and 9 must be ARC courses, taken at the School of Architecture. The remaining 3 credits may be taken from the list below or from any HOA upper-level courses. Students may petition to have up to 6 credits of selected topics courses in architectural history (ARC or HOA) count toward the minor.

Pre-Requisite: HOA105/106 or ARC133/134 (their credits do not count toward the minor)

The following courses offered by the School of Architecture (ARC) and the Department of Art & Music Histories (HOA) count as courses on the History of Architecture:

Primarily HOA courses -

HOA 304 - Roman Art and Architecture  
HOA 396 - Art and Architecture of India  
HOA 405 - The Mediterranean City: Architectural Ritual and Power (Florence Center)  
HOA 410 - Art and Ideology in Medieval Spain  
HOA 412 - The Gothic Spell  
HOA 520 - Italian Urbanism: 100 Cities (Florence Center)

Primarily ARC courses -

ARC 332/HOA 323 - Sixteenth Century Italian Architecture  
ARC 334 The Architecture of Revolutions: European Architecture from the Scientific to the Industrial Revolution  
ARC 335/HOA 322 - Early Renaissance Architecture in Italy  
ARC 336/HOA 324 - Italian Seventeenth Century Architecture  
ARC 337/HOA 374 - American Architecture, Settlement to 1860  
ARC 338/HOA 375 - American Architecture, 1860-World War I  
ARC 431/HOA 479 - Modern Architecture  
ARC 432/HOA 419 - The City in Architectural History  
ARC 433/HOA 439 - French Architecture, Sixteenth and Seventeenth Centuries  
ARC 435/HOA 389 - Islamic Architecture  
ARC 436/HOA 475 - Modern Architecture: The International Style to the Present

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## International Relations Major

Contact:

International Relations Program  
225 Eggers Hall  
315-443-2306  
IR-Advisor@maxwell.syr.edu

Faculty Alan Allport, Hossein Bashiriyeh, G. Matthew Bonham, Mehrzad Boroujerdi, Hans C. Buechler, John S. Burdick, Kristina Buzard, Horace Campbell, Linda Carty, A.H. Peter Castro, Matthew R. Cleary, Goodwin Cooke, Francine D'Amico, David Kwame Dixon, Gavan Duffy, Michael R. Ebner, Colin Elman, Miriam Fendius Elman, Margarita Estévez-Abe, Paul M. Hagenloh, Jonathan K. Hanson, Azra Hromadzic, Matthew Huber, Seth Jolly, George Kallander, William F. Kelleher Jr., Osamah F. Khalil, Audie Klotz, Natalie Koch, Norman A. Kutcher, Mary E. Lovely, Amy Lutz, Laurie Marhoefer, Allan C. Mazur, Gladys McCormick, Daniel McDowell, Don Mitchell, Devashish Mitra, Chandra Talpade Mohanty, Glyn Morgan, Piyusha Mutreja, Lourenço Paz, Deborah Pellow, Thomas Perreault, Robin Riley, David J. Robinson, Robert A. Rubinstein, Mark Rupert, Anoop Sadanandan, S.N. Sangmpam, Hans Peter Schmitz, Maureen Trudelle Schwarz, Yüksel Sezgin, Martin S. Shanguhya, James B. Steinberg, Farhana Sultana, Junko Takeda, Brian D. Taylor, Stuart J. Thorson, Cecilia Van Hollen, Susan S. Wadley, John C. Western, Jamie L. Winders

The undergraduate major in international relations helps students develop the analytic, cultural, and linguistic skills needed to understand contemporary international affairs, to function effectively in a global environment, and to prepare for further academic or professional study and international career opportunities. This multidisciplinary program provides students with analytic tools and approaches from social science disciplines—anthropology, economics, geography, history, political science, and sociology—to explore current issues and to conceptualize global citizenship. For additional information, please consult our web page at <http://www.maxwell.syr.edu/IR/>

### MAJOR REQUIREMENTS

Requirements for the major include either 33 or 36 credits in international relations plus demonstrated proficiency in a contemporary spoken language other than English. Credits for internships in international relations, including internships abroad and IRP 471 Global Internship in Washington, D.C., may

be counted toward the major upon prior approval by the International Relations Program.

Each major must complete three (or four) introductory courses:

1. PSC 124 International Relations or PSC 139 International Relations (Honors) (3 credits);
2. ECN 203 Economic Ideas and Issues (3 credits) or ECN 101 Microeconomics and ECN 102 Macroeconomics (6 credits); and
3. MAX 132 Global Community or ANT 185 Global Encounters (3 credits).

To be eligible to declare the undergraduate major in International Relations, students must achieve a grade of 'B' or better in at least one (1) of the three required introductory courses taken for the major at Syracuse University.

Of the 33 or 36 credits in the major, 24 credits must be in courses numbered 300 or above. Eighteen (18) of these credits are devoted to two concentrations within the major: 3 courses/9 credits are taken in a geographic concentration in either Africa, Asia, Europe, Latin America and the Caribbean, or the Middle East and North Africa, and 3 courses/9 credits are taken in a topic concentration in either Intercultural Communication (ICC), International Security and Diplomacy (ISD), International Law and Organizations (ILO), or International Political Economy (IPE).

The remaining 6 credits must include one upper-division elective on any international topic or geographic area and a 400-level capstone experience. This capstone is an in-depth research project which may be undertaken in a senior seminar, an independent study, or an honors project on an appropriately international theme, as approved by the International Relations Program.

In addition to the 33 or 36 credits required in courses in international relations, each student major must demonstrate proficiency in a contemporary spoken language other than English. This language should be spoken in the geographic area chosen for the student's region concentration. Proficiency must be demonstrated by coursework to at least the level of Course IV (202) taught by the Syracuse University Department of Languages, Literatures, and Linguistics - <http://lang.syr.edu> or the equivalent. We strongly encourage students to continue language study to an advanced level of literacy and fluency. Students for whom English is a second language must complete ENL 211 and ENL 213.

Graduation with a Bachelors of Arts degree in international relations requires an overall grade point average of 2.0 or higher in 24 credits of upper-division courses for the major, including a grade of 'C' or better for work undertaken to fulfill the senior capstone requirement.

#### ADDITIONAL PROGRAM OPPORTUNITIES

International relations majors are expected to study abroad during their undergraduate program. Syracuse University Abroad (SU Abroad) offers a rich variety of courses that can be applied to the International Relations major requirements. Please see <http://suabroad.syr.edu>.

Participation in the Maxwell-in-Washington International Relations Semester, a 15-credit seminar and internship program, is recommended for all majors. For more information on this program, please contact the International Relations Programs office and see our webpage at [http://www.maxwell.syr.edu/IR\\_Maxwell\\_in\\_DC/](http://www.maxwell.syr.edu/IR_Maxwell_in_DC/)

Co-curricular activities, such as the International Relations Learning Community, a residential program for students new to Syracuse University, as well as our International Relations Honor Society Sigma Iota Rho, Model United Nations Club and Team, International Relations Club, Conversations in IR speakers series, colloquia, and related activities, are available. Please see our webpage for more information. <http://www.maxwell.syr.edu/ir/>

The International Relations Program also offers minors in Global Political Economy and Global Security Studies. For more information, please see our "Affiliated Minors" webpage under "Academics" at [http://www.maxwell.syr.edu/IR\\_affiliated\\_minors/](http://www.maxwell.syr.edu/IR_affiliated_minors/)

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## International Relations Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in International Relations and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not

necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Certificate In Iroquois Linguistics For Language Learners

Contact:

Scott Manning Stevens  
314 Tolley Humanities Building  
scsteven@syr.edu  
315-443-8785

The Iroquois language family is a group of distinct but closely related languages. Of these languages, six are spoken by the Haudenosaunee Confederacy: Mohawk, Oneida, Onondaga, Cayuga, Seneca, and Tuscarora. These languages share a common grammatical structure and cultural history. This certificate program will explore the commonalities and differences among the Iroquois languages.

The courses are designed for students and teachers of Iroquois languages, addressing many different needs. They provide an excellent foundation for Iroquois language students, teachers, linguists, anthropologists, and others. These courses will contribute to Iroquois language revitalization efforts and expand knowledge of the Iroquois languages.

The Certificate in Iroquois Linguistics provides a unique opportunity to study the linguistic principles and grammatical features that are unique to the Iroquois languages. This program also offers a unique opportunity to study Iroquois linguistics with rich examples from the six Haudenosaunee (Six Nations Iroquois Confederacy) languages.

Iroquois linguistics entails the study of a number of interacting grammatical systems within the Iroquois languages. The Certificate Iroquois Languages (CIL) sequence of courses will study all of the grammatical systems within the Iroquois Languages. The student will study the grammatical systems that the Iroquois languages have in common as well as the parts of the grammatical system which makes each of the Iroquois languages distinct.

The Iroquois verb is especially complex. It is imperative that someone who is learning or teaching an Iroquois language has a complete understanding of the grammatical systems that are interacting within the verb; to achieve fluency in an Iroquois language requires a full understanding of the grammatical systems. The Native Speakers of the Iroquois Languages acquire the grammatical systems naturally. In Iroquois Linguistics one seeks to model their knowledge.

A student in the Certificate in Iroquois Linguistics will also explore and learn to use the vast scholarly resources which are available to those who learn the linguistic terminology and concepts that are employed within these resources.

### COURSE REQUIREMENTS:

Fall:

NAT 301 Iroquois Verb Morphology I (3 credits)

Analyze the Iroquois verb. Introduction to the morphological structure common to all Iroquois languages.

NAT 305 Iroquois Phonetics and Phonology (3 credits)

Explore the sounds and sound systems of Iroquois Languages (Onondaga, Mohawk, Seneca, Cayuga, Oneida, and Tuscarora). Examine how these sound systems are related to writing systems.

Spring:

NAT 302 Iroquois Verb Morphology II (3 credits)

Analyze the Iroquois verb. Introduction to the morphological structure common to all Iroquois languages. Prerequisite: NAT 301.

NAT 306 Iroquois Syntax and Semantics (3 credits)

Explore the semantic distinctions and syntactic structures in Iroquois Languages. Prerequisite:

Summer:

NAT 308 Iroquois Linguistics in Practice (3-6 credits)

Guides students through the practical application of phonetics, phonology, semantics, morphology, and syntax to the Iroquois language learning and teaching experience. Prerequisites: NAT 301, 302, 305, and 306.

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## Italian Minor

Italian Language, Literature, and Culture

Stefano Giannini

309 H.B. Crouse

315-443-2136.

A minor in Italian consists of a minimum of 18 credits including ITA 202 and 15 other credits in upper-division courses. Twelve of the 15 credits in upper-division courses are in courses taught in Italian; 3 of the credits in upper-division courses may be taught in Italian, in English, or in English with readings in Italian.\* A LIT course at the 200 level taught in English by Italian Program faculty may be substituted for an upper-division course taught in English to satisfy the minor requirements.

\*As approved by the program advisor.

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## Italian Language, Literature And Culture

Contact: Stefano Giannini

Languages, Literatures, and Linguistics

309 H.B. Crouse

315-443-2136.

Faculty Stefano Giannini

The major in Italian language, literature, and culture, which leads to a B.A. degree, provides students with a mastery of the language and a broad knowledge of Italian literature and culture. Lower-division courses teach the skills needed to read, write, and speak Italian. After the second year, students are trained to develop an oral and written command of the language. Literature and film studies cover areas of studies from Dante and the Renaissance to modern and contemporary periods.

All students with more than one year of high school Italian are required to take a placement examination (accessible on line via the "my slice" page), given immediately before registration each semester. The requirement applies to all students regardless of class standing or previous study.

Prospective majors should consult the Italian program coordinator as early as possible. Early consultation is particularly important for students with little or no preparation in Italian so they may be sure to satisfy prerequisites and requirements within four years.

### STUDY ABROAD

Students studying Italian are strongly encouraged to spend a semester or a year abroad. Syracuse University's program in Florence, Italy, enables students to take fully accredited classes in Italian language and literature, fine arts, history, political science, and a number of electives outside arts and sciences. For students fluent in Italian, placements are available at the Centro per Stranieri at the University of Florence. For further information, contact the Italian program coordinator or Syracuse University Abroad, 106 Walnut Place.

### MAJOR REQUIREMENTS

A major in Italian consists of ITA 202 plus 24 credits in upper-division courses. Eighteen of the credits in upper-division courses are from courses taught in Italian; 6 of the credits may be in upper-division courses taught in Italian, in English, or in English with readings in Italian as approved by the program advisor. LIT courses at the 200 level taught in English by Italian language faculty may be substituted for upper-division courses taught in English to satisfy the major requirements.

\*As approved by the program advisor.

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## Jewish Education

Coordinator: Corinne Roth Smith, Professor

157 Huntington Hall, 315-443-9321, crsmith@syr.edu

The primary purpose of this minor is to better prepare SU undergraduates to teach in Jewish congregational schools, camps, community centers, youth organizations.

Admission:

- GPA 2.8 or above
- 1-2 page statement on why the individual would like to declare a minor in Jewish Education
- The JSP Director and Jewish Education Minor Coordinator will review each candidate's courses completed and professional disposition standards before recommending a student for a community internship. Those not approved will be asked to un-declare the minor.

Curriculum Requirements:

Core Courses: (6 credits)

JSP/REL 114 (3 cr.) The Bible

or

JSP/REL 215 (3 cr.) The Hebrew Bible

JSP/REL 135 (3 cr.) Introduction to Judaism

Additional Judaic Studies Content (9 credits)

- Must be 300 level and above
- Must include courses cross-listed with JSP, including those offered abroad. Other courses with Judaic Studies content can be approved by the JSP director.
- One course in history, sociology or political science is strongly recommended.

Pedagogy Courses (7-9 credits):

- EDU 303 (3 cr.) Teaching and Learning for Inclusive Schooling (includes field experience)

or

- EDU 204 (4 cr.) Principles of Learning in Inclusive Classrooms (includes field experience)

Students in Teacher Preparation Programs will overlap this course with their education major.

- EDU 355 (3 cr.). Fundamentals of Teaching for Non-Majors (course to be regularized). Students in Teacher Preparation Programs may substitute a methods course from their teacher preparation area for this course.
- EDU 470 Experience Credit (Practicum in Jewish Education (1-2 cr.)) (non-teacher preparation majors complete two credits/semesters, and enroll concurrently with EDU 355; Teacher Preparation majors complete one credit/semester and enroll in their field specific methods course prior to or concurrent with EDU 470):
- The practicum semester(s) will include sessions during which congregational/agency educators convey supplementary information on Jewish traditions, modes of thought, and teaching strategies.

Total Credits: 22-24

Additional Hebrew requirement: Students must complete HEB 101 (4 cr.), or achieve placement test results placing them into HEB 102 or higher. (Students are not required to take HEB 102, however). This requirement must be completed before the internship semester.

Note: Students in the Inclusive Elementary and Special Education program can best fit the Judaic Studies courses into their curriculum if they are Human Thought and Expression concentrators.

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## Jewish Studies Minor

Jewish Studies

Zachary J. Braiterman, Director

zbraiter@syr.edu

501 Hall of Languages

315-443-5719

This interdisciplinary minor explores Modern Jewish culture and religion. Faculty research and teaching focus on the Hebrew Bible, Hebrew and Yiddish fiction, European and American literature, Jews in modern Europe, the arts, modern Judaic thought and culture, Israel, and the Palestinian-Israeli conflict. The minor provides broad, interdisciplinary knowledge of Jewish experience both historical and contemporary, and is meant to prepare students for further

pursuits in Jewish culture, history, and religion upon graduation, either academically or in private life. The Judaic Studies Program offers courses and advising to students, and a range of events (lectures, films, musical performances, etc.) for students, faculty, and the larger community. Graduate students are eligible to apply for the Benjamin Fellowship, and all students may submit Holocaust-related papers to the undergraduate and graduate Kalina Prize competition.

#### Requirements:

The minor requires 18 credits in Jewish Studies. Students take a 6 credit core, which includes two courses selected from:

- JSP/REL 114: The Bible
- JSP/REL 135: Judaism
- JSP/REL 231: Judaic Literature

An additional 9 credits are required in related courses chosen in consultation with the director of the program. Two years of Hebrew are recommended but not required.

- JSP/REL 300: Selected Topics
- JSP/REL 307: The Temple and the Dead Sea
- JSP/REL 311: The Bible as Literature
- JSP/REL 331: European & American Judaic Literature
- JSP/REL 333: Yiddish Literature in Translation
- JSP/REL 334: Modern Judaism
- JSP/REL 335: Israeli Literature & Culture
- JSP/REL 337: Shoah: Responding to the Holocaust
- JSP/REL 400: Selected Topics
- JSP/REL 435: Modern Judaic Thought
- JSP/REL 490: Independent Study
- JSP/REL 500: Selected Topics
- JSP/REL 416: The Torah/Pentateuch
- HEB 201: Hebrew III
- HEB 202: Hebrew IV
- HEB 301: Advanced Hebrew
- HEB 303: Advanced Hebrew

Plus the following 3 credits: JSP 439 Senior Judaic Studies Seminar

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## Latin American Studies Minor

### Latin American Studies

Myrna Garcia, Director and Program Advisor  
mygarcia@syr.edu  
310 H.B.C.  
315-443-9489

#### REQUIREMENTS

The minor in Latin American Studies requires a total of 18 credits from the list above; 12 credits are in courses numbered above 299. For Spanish language majors and students whose first language is Spanish, at least 9 credits must be in non-language courses. Students intending to declare a minor in Latin American Studies are strongly advised to contact the Director of the Latino-Latin American Program to discuss the selection of suitable courses and other issues.

#### Declaring a minor

Students intending to declare a minor in Latin American Studies contact the Director of the Latino-Latin American Program to discuss the selection of suitable courses and other issues.

Courses should be selected from the following list in consultation with the advisor. Additional courses in Anthropology, English and Textual Studies, History, History of Art, History of Music, Geography, Political Sciences and Spanish are recommended and may be petitioned for LAS credit in consultation with the program director.

#### Anthropology

- LAS 318/ANT 322 South American Cultures
- LAS/ANT 523 Culture Change in Latin America English

#### English

- LAS 200/ETS 230 Ethnic Literary Traditions
- LAS 300/ETS 350 Latino Fiction
- ETS 315 U.S. Literature of the Caribbean Diaspora

#### Geography

- LAS/GEO 321 Latin American Development: Spatial Aspects
- LAS/GEO 325 Colonialism in Latin America
- LAS/GEO 520 Research on Latin America

#### History

- LAS/HST 322 Colonial Latin America
- LAS 313/HST 323 Modern Latin America
- LAS/HST 324 Recent Latin American History
- LAS/HST/WGS 371 Gender in Latin American History

#### Political Science

- LAS/PSC 333 Comparative Government: Latin America
- LAS/PSC 335 US & Mexico

#### Spanish

- LAS 300/SPA 301 Approaches to Reading Texts
- LAS 302/SPA 322 Introduction to Latin American Literature
- LAS/SPA 433 Business Spanish
- LAS/SPA 461 Nobel Prize Writers of the Spanish Speaking World
- LAS/SPA 462 Border Culture
- LAS/SPA 463 Contemporary Latin American Theater
- LAS/SPA 465 Literature and Popular Culture
- LAS/SPA 467 Film and Literature
- LAS/SPA 471 Contemporary Latin American Literature
- LAS/SPA/WGS 475 Women, Myth, and Nation in Latin American Literature
- LAS/SPA 479 Perspectives on Mexico and Central America: Literature, Art, Film
- LAS/SPA 481 The Literature of Latinos in the United States
- LAS/SPA 489 Hispanic Caribbean Narrative and Film
- LAS/SPA 493 Afro-Hispanic Topics in the Caribbean Literature
- LAS/SPA 494 Hispanic Caribbean Literature and Film
- LAS/SPA 495 Marginal Cultures in Hispanic Caribbean Literature
- LAS/SPA 497 Text and Context in Cuban Revolutionary Literature

## Latino-Latin American Studies Major

Myrna Garcia, Director  
 mygarcia@syr.edu  
 310 H.B.C.  
 315-443-9489

The Latino-Latin American Studies program of the College of Arts and Sciences leads to the B.A. degree and embraces an interdisciplinary approach to culture, development, resources, history, and societies of these critical regions and their peoples. This recently modified and innovative program is designed to promote awareness and understanding of the many issues faced by the Latino and Latin American peoples of the western hemisphere. A wide range of faculty from several departments and with complementary perspectives provide a stimulating entry into the interrelated worlds of Latino America and Latin America.

#### MAJOR REQUIREMENTS

Students are required to take 30 credits of coursework, 24 of which are in courses numbered above 299. Courses should be selected from the following list in consultation with the advisor. Additional courses in Anthropology, English and Textual Studies, History, History of Art, History of Music, Geography, Political Sciences and Spanish are recommended and may be petitioned for LAS credit in consultation with the program director.

#### Anthropology

- LAS 318/ANT 322 South American Cultures
- LAS/ANT 523 Culture Change in Latin America English

## Political Science

- LAS/PSC 333 Comparative Government: Latin America

## English

- LAS 200/ETS 230 Ethnic Literary Traditions
- LAS 300/ETS 350 Latino Fiction
- ETS 315 U.S. Literature of the Caribbean Diaspora

## Geography

- LAS/GEO 321 Latin American Development: Spatial Aspects
- LAS/GEO 325 Colonialism in Latin America
- LAS/GEO 520 Research on Latin America

## History

- LAS/HST 322 Colonial Latin America
- LAS 313/HST 323 Modern Latin America
- LAS/HST 324 Recent Latin American History
- LAS/HST/WGS 371 Gender in Latin American History

## Spanish

- LAS 300/SPA 301 Approaches to Reading Texts
- LAS 302/SPA 322 Introduction to Latin American Literature
- LAS/SPA 433 Business Spanish
- LAS/SPA 461 Nobel Prize Writers of the Spanish Speaking World
- LAS/SPA 463 Contemporary Latin American Theater
- LAS/SPA 465 Literature and Popular Culture
- LAS/SPA 467 Film and Literature
- LAS/SPA 471 Contemporary Latin American Literature
- LAS/SPA/WGS 475 Women, Myth, and Nation in Latin American Literature
- LAS/SPA 479 Perspectives on Mexico and Central America: Literature, Art, Film
- LAS/SPA 481 The Literature of Latinos in the United States
- LAS/SPA 489 Hispanic Caribbean Narrative and Film
- LAS/SPA 493 Afro-Hispanic Topics in the Caribbean Literature
- LAS/SPA 495 Marginal Cultures in Hispanic Caribbean Literature
- LAS/SPA 497 Text and Context in Cuban Revolutionary Literature

Additional courses may be petitioned with approval of advisor.

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## Latino-Latin American Studies Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Latino-Latin American Studies and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA

and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## LGBT Studies Minor

Lesbian, Gay, Bisexual and Transgender Studies  
Roger Hallas, Director  
309 Tolley Humanities Building  
315-443-4947

Faculty Barbara Applebaum, Dorri Beam, Susan Branson, Linda Carty, Tucker B. Culbertson, Albrecht Diem, Carol Fadda-Conrey, Beth Ferri, Roger Hallas, Margaret Himley, Thomas M. Keck, Claudia Klaver, Andrew S. London, Laurie Marhoefer, Vivian M. May, Charles Morris, Donald E. Morton, Dana M. Olwan, Jackie Orr, Elizabeth C Payne, Minnie Bruce Pratt, Erin Rand, Robin Riley, William A. Robert, Perry Singleton

### Requirements

The minor in Lesbian, Gay, Bisexual and Transgender (LGBT) Studies requires 18 credits of course work: two lower division core courses (QSX 111 Queer Histories, Communities, and Politics and QSX 112 Sexualities, Genders, Bodies) and four upper division courses approved for the minor. QSX 111 counts towards the social science requirement and QSX 112 counts towards the humanities divisional requirement in the Arts and Sciences Core Curriculum: both QSX 111 and QSX 112 count toward the critical reflections requirement. There are no cluster requirements for students; students may take any of the approved courses or petition to substitute other courses with substantial LGBT content or projects. Currently approved courses include those listed below. Course with partial focus on LGBT content have been marked with an asterisk. No more than two of these courses can be used to fulfill the requirements of the minor.

Two lower division core courses (required)

QSX 111: Queer Histories, Communities, and Politics

Explores and analyzes queer histories, communities and politics from the ancient past to the contemporary, global present through an interdisciplinary reading of research, theory, memoir, biography, fiction, and documentary film.

QSX 112: Sexualities, Genders, Bodies

Explores how sexuality, gender, and embodiment are understood across communities and through time with an interdisciplinary analysis of literature, film, mass media, websites, research, and theory.

The courses for the minor are clustered thematically, and each cluster will offer at least one course every fourth semester. Often, more than one course will be offered per semester.

Communities, Places, and Identities: This cluster explores the social and spatial dimensions of sexuality, the production of sexual identities, and LGBT lives and experiences.

- ARC 500 Space and Sexuality
- CRS 568 Rhetoric of Social Change\*
- ETS/WGS 360 Gender and Sexuality in the Arab World
- QSX/WGS/SOC 300 Sex, Gender and the City (SU London only)
- QSX 306 Sexuality in Spain (SU Madrid only)
- QSX 400 Sexualities and Social Life in Spain (SU Madrid only)
- SOC/QSX 456 LGBT Studies in Sociology
- WGS/QSX 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies

Histories and Knowledges: This cluster analyzes the ways knowledge about sexuality is and has been constructed through social structures, cultural contexts, systems of power, epistemologies, and analytical practices.

- AAS 309 Race, Gender, and Sexuality in the African Diaspora
- CRS 360 Lincoln's Rhetorical Worlds\*
- ETS/WGS 360 Theories of Gender and Sexuality
- HST 362 Nazi Germany and the Holocaust\*

- HST/QSX/WGS 389 LGBT History
- REL 310 Medieval Christianities\*
- REL/QSX 357 Queerly Religious
- WGS 438 Trans Genders and Sexualities

Representation, Media, and Performance: This cluster addresses the ways LGBT cultures and practices have been performed and represented in art and culture.

- CRS 360 Public Memory\*
- ETS/WGS 360 Documenting Sexualities
- ETS 360/QSX 300 James Bond and British Masculinity\* (SU London only)
- ETS/WGS 360 Cinema and Sexual Difference
- QSX 400 Queer Cinema in Europe (SU Florence only)
- QSX 400 Practice of Eros: A History of Sexuality in Europe (SU Florence only)
- WRT 422 LGBT Creative Nonfiction
- WGS 365 Negotiating Differences: Coming of Age Narratives

Institutions and Public Policy: This cluster studies the ways legal, political, and educational institutions both shape and are shaped by LGBT lives and experiences.

- CFE 300 Queer Youth, Straight Schools: LGBT Issues in Education
- PSC/QSX 384 Sexuality and the Law
- SWK/HTW/QSX 437 Lesbian, Gay, Bisexual and Transgender (LGBT) Health & Well Being

## Linguistic Studies Major

Contact: Jaklin Kornfilt  
 Director, Linguistic Studies  
 340 H.B. Crouse  
 315-443-5375.

Faculty Tej K. Bhatia, Amanda Brown, Richard W. Buttny, Kevan Edwards, Mary Louise Edwards, Gerald R. Greenberg, Diane Grimes, Jaklin Kornfilt, Elizabeth D. Liddy, Amy Lutz, Thomas McKay, Linda Milosky, Amardo Rodriguez, Robert A. Rubinstein, Maria Emma Ticio Quesada, Robert Van Gulick, Susan S. Wadley, Bei Yu

Linguistics is the study of the nature and use of language and provides insight into the workings of the human mind. The major ties together studies in many areas, such as anthropology, child and family studies, computer science, English and other languages, geography, literary criticism, mathematics, philosophy, psychology, sociology, speech communication, speech pathology, and linguistics proper.

LIN 201 is an introduction to linguistic studies and is a prerequisite to the major and to advanced courses. It does not, however, count toward major requirements.

### MAJOR REQUIREMENTS

Linguistic studies majors and prospective majors must consult the director of the program before registration.

Students must fulfill the Liberal Arts Core Language Skills requirement in one language and successfully complete at least 6 credits in an additional language (other than English) that is structurally significantly different from the language used to fulfill the Liberal Arts Core requirement. In addition, students successfully complete LIN 301 Introductory Linguistic Analysis, LIN 431 Phonological Analysis, and LIN 441 Syntactic Analysis. Major requirements also include the successful completion of at least 18 credits of additional work, of which at least 9 credits are in courses numbered 300 or above. The 18 credits must be in approved linguistic studies courses, chosen from at least three of the following groups:

#### Psychology and Biology of Language

- CFS 365 Language Development in Children and Families
- COG 301 Introduction to Cognitive Science
- LIN 491 Universal Grammar and Second Language Acquisition
- LIN 591 Second-Language Acquisition
- CSD 212 Introduction to Communication Sciences and Disorders
- CSD 315 Anatomy and Physiology of Speech and Hearing Mechanisms
- CSD 316 Introduction to Applied Phonetics
- CSD 345 Fundamentals of Speech Science
- CSD 409 Neural Processes of Speech and Language

#### Language in Culture and Society

- LIN/ANT 202 Languages of the World
- LIN 471 Dimensions of Bilingualism and Multiculturalism
- LIN/ANT 472 Language, Culture, and Society
- LIN 481 Global Communication through World Englishes
- LIN/ANT/SOC 571 Topics in Sociolinguistics

#### Logic and Language

- PHI 251 Logic
- PHI 351 Logic and Language
- PHI 551 Mathematical Logic
- PHI 552 Modal Logic
- PHI 565 Philosophy of Language

#### History and Structure of Language

- LIN/ANT 202 Languages of the World
- LIN 251 English Words
- LIN 451 Morphological Analysis
- LIN 461 Introduction to Historical Linguistics
- SPA 436 The Structure of Spanish

#### Language Pedagogy

- LIN 421 Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching
- Advanced Methods of Teaching Languages: English/Foreign Language Teaching

## Linguistics Studies Minor

Jaklin Kornfilt

340 HB Crouse

315-443-5375

Faculty Tej K. Bhatia, Amanda Brown, Richard W. Buttny, Kevan Edwards, Mary Louise Edwards, Gerald R. Greenberg, Diane Grimes, Rania Habib, Jaklin Kornfilt, Elizabeth D. Liddy, Amy Lutz, Thomas McKay, Linda Milosky, Amardo Rodriguez, Robert A. Rubinstein, Maria Emma Ticio Quesada, Robert Van Gulick, Susan S. Wadley, Bei Yu

LIN 201 is an introduction to linguistic studies and is a prerequisite to the minor and to advanced courses. It does not, however, count toward minor requirements.

To complete a minor in linguistic studies, students must successfully complete 18 credits.

LIN 301 Introductory Linguistic Analysis and LIN 441 Syntactic Analysis are required. Of the remaining 12 credits, 6 must be in courses numbered above 299. Students choose four courses from those listed below.

#### Psycholinguistics/Sociolinguistics/History and Structure of Language

- ANT 372 Issues in Intercultural Conflict and Communication
- CFS 365 Language Development in Children and Families
- LIN 251 English Words
- LIN 431 Phonological Analysis
- LIN 451 Morphological Analysis
- LIN 461 Introduction to Historical Linguistics
- LIN 471 Dimensions of Bilingualism and Multiculturalism
- COG 301 Introduction to Cognitive Science
- LIN/ANT 472 Language, Culture, and Society
- LIN 491 Universal Grammar and Second Language Acquisition
- LIN/ANT/SOC 571 Topics in Sociolinguistics
- LIN 591 Second-Language Acquisition
- CRS 430 Intercultural Speech Communication

#### Languages of the World

- LIN/ANT 202 Languages of the World
- LIN/ANT 472 Language, Culture and Society
- CRS 430 Intercultural Speech Communication

## Philosophy of Language

CIS 468 Natural-Language Processing  
CIS 473 Automata and Computability  
PHI 251 Logic  
PHI 551 Mathematical Logic  
PHI 565 Philosophy of Language

## Language Pedagogy

LIN 421 Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching  
LIN 422 Advanced Methods of Teaching Languages: English/Foreign Language Teaching

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## Logic Minor

Thomas McKay  
541 Hall of Languages  
315-443-2245

Faculty Howard A. Blair, Kevan Edwards, Jaklin Kornfilt, Thomas McKay

### Requirements

The minor in Logic requires 18 credits, selected in consultation with the program advisor. At least 12 credits are in courses numbered above 299. Students take the following courses (though suitable courses in special topics may be substituted, subject to the program advisor's approval).

Introduction to Concepts of Logic (two courses required)

- PHI 251 Logic

And one of the following three courses

- PHI 252 Logic and Language
- CIS 275 Introduction to Discrete Mathematics
- MAT 375 Introduction to Abstract Mathematics

Techniques of Logical Investigation (at least one course)

- CIS 473 Logic and Computability
- CIS 521 Discrete Mathematics and Data Structures
- PHI 551 Symbolic Logic
- PHI 552 Modal Logic

Other Courses (choose two or three)

- CIS 473 Logic and Computability
  - CIS 468 Natural Language Processing
  - CIS 567 Knowledge Representation and Reasoning
  - LIN 441/641 Syntactic Analysis
  - MAT 593 History of Mathematics
  - PHI 373 Introduction to the Philosophy of Science
  - PHI 487 History of Epistemology
  - PHI 555 Philosophy of Mathematics
  - PHI 565 Philosophy of Language
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## Mathematics Major

Chair: Uday Banerjee  
215 Carnegie Building  
315-443-1472

Major Advisors: S.P. Diaz, L. Kovalev, D. Zacharia .

Faculty Uday Banerjee, Pinyuen Chen, Dan Coman, J. Theodore Cox, Steven Diaz, Helen M. Doerr, Jack E. Graver, Philip S. Griffin, Peter D. Horn, Tadeusz Iwaniec, Hyune-Ju Kim, Mark Kleiner, Leonid Kovalev, Loredana Lanzani, Graham J. Leuschke, Adam Lutoborski, Joanna O. Masingila, Terry R. McConnell, Claudia Miller, Jani Onninen, Evgeny Poletsky, Declan Quinn, Lixin Shen, John Ucci, Gregory Verchota, Andrew Vogel, William Voltermann,

All students who plan to take any courses in mathematics should take the Mathematics Placement Examination. Those who do not pass the algebra portion of the test are advised to take MAT 112 as their first mathematics course.

Students who complete any calculus course numbered 284 or higher with a grade of C or better are exempt from the quantitative skills requirement. Otherwise, students may satisfy the quantitative skills requirement by passing two courses in an approved sequence, as described in the Liberal Arts Core Curriculum Handbook. Students who have been awarded credits in calculus on the basis of the CEEB Advanced Placement Examination may use those credits to satisfy this requirement.

There are two calculus sequences, MAT 285, 286 and MAT 295,296,397. Advisors are available in the Department of Mathematics to assist students in the choice of the appropriate calculus sequence, which is very important since switching sequences is difficult. Furthermore, only one of MAT 284 or 285 may be taken for credit. Students cannot receive credit for MAT 284 or 285 after successful completion of MAT 295. Also, students cannot receive credit for MAT 295 after successful completion of MAT 286.

As a preliminary requirement for the mathematics major, students complete 18 credits in the following classes with no grade below a C: MAT 295, 296, 331, 397, and MAT 375. These courses are prerequisites for most upper-division courses. The following sequence is recommended: MAT 295 in the first semester; MAT 296 in the second semester; MAT 331, 397 in the third semester; and MAT 375 when appropriate. However, students with knowledge of trigonometry and a year of high school calculus may be able to enter the sequence at MAT 296 or even MAT 397; students with less preparation may be advised to complete MAT 194 before beginning the calculus sequence. Students considering becoming mathematics majors are strongly encouraged to talk to a mathematics major advisor as soon as possible. Computer science students (only) who have credit for CIS 275, and are pursuing a dual major in mathematics, need not take MAT 375.

Students who wish to teach mathematics at the secondary school level should satisfy the requirements for the B.S. in mathematics and dually enroll in the School of Education. For further information about mathematics education, see “Education/Arts and Sciences (dual program)” in this section of the catalog.

Students who plan to pursue graduate study in mathematics should obtain the B.S. degree and consider taking at least one first-year graduate (600-level) course.

#### B.A. DEGREE REQUIREMENTS

In addition to the preliminary requirement described above, students are required to complete with an average of at least 2.0 and no grade below D, MAT 412 and 15 additional credits in upper division mathematics (MAT) courses numbered 400 or higher except 485, at least two of which are from a single one of the groupings below:

Analysis: MAT 511,512,513,554,562

- Analysis: MAT 511, 512, 513, 554, 562
- Algebra: MAT 531,534,541
- Finite Mathematics: MAT 531,541,545,551,
- Applied analysis: MAT 414,517,518,581
- Probability and statistics: MAT 521,525,526

With consent of the advisor, these groupings may be altered.

#### B.S. DEGREE REQUIREMENTS

Students interested in pursuing the B.S. degree in mathematics obtain, in advance, the approval of a mathematics major advisor and the department chair of a petition to the effect that the upper-division courses to be taken satisfy the requirement for a B.S. degree.

In addition to the preliminary requirement described above, the student is required to complete the following coursework with an average of at least 2.0 and no grade below a D:

- MAT 412, 512 (analysis sequence)
- MAT 531, 534 (algebra sequence)
- MAT 521 (probability and statistics)

and at least one of these:

- MAT 414 (differential equations) or
- MAT 551 (geometry)

and 12 additional credits in mathematics (MAT) courses numbered 490 or higher. With prior approval of the mathematics major advisor, a student may substitute another MAT course numbered 490 or higher for the MAT 412 requirement. Up to 6 credits in advanced courses in other departments that have been approved in advance by the student's major advisor may be included in the 12 credits.

Distinction in Mathematics is awarded by the Mathematics Department upon completion of a B.S. in mathematics with a minimum cumulative GPA of 3.4,

a minimum GPA of 3.6 in mathematics (MAT) courses at the 300+ level, and either an A or A- in the Senior Seminar or a high-quality Honors Thesis. See the Mathematics Department undergraduate advisor for additional requirements.

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## Mathematics Minor

Adam Lutoborski  
315-443-1489  
alutobor@syr.edu

Faculty Uday Banerjee, Pinyuen Chen, Dan Coman, J. Theodore Cox, Steven Diaz, Helen M. Doerr, Jack E. Graver, Philip S. Griffin, Peter D. Horn, Tadeusz Iwaniec, Hyune-Ju Kim, Mark Kleiner, Leonid Kovalev, Loredana Lanzani, Graham J. Leuschke, Adam Lutoborski, Joanna O. Masingila, Terry R. McConnell, Claudia Miller, Jani Onninen, Evgeny Poletsky, Declan Quinn, Lixin Shen, John Ucci, Gregory Verchota, Andrew Vogel, William Voltermann, Stephan Wehrli, William Wylie, Yuan Yuan, Dan Zacharia

### Requirements

The minor in mathematics requires the completion of 21 credits with a grade point average of 2.0 or better. Students complete a 15-credit core that includes the calculus sequence (MAT 295, 296,397) and either MAT 331 (recommended) or MAT 485.

In addition, students select 6 credits in one of the following subject areas:

- Algebra: MAT 531 and one course chosen from MAT 534,541, or MAT/CIS 545.
- Analysis: Any two courses chosen from MAT 511,512,513,562.
- Applied Mathematics: Any two courses chosen from MAT 517,518,532.
- Differential Equations: MAT 414,517.
- Geometry: MAT 531,551 or MAT 531,554
- Probability and Statistics: MAT 521,525 or MAT 521,526

Note: Students who take MAT 485 instead of MAT 331 may not use the differential equations sequence to satisfy minor requirements.

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## Mathematics Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Mathematics and Secondary Education (Math) Teacher Preparation Program

School of Education contact: Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall. mrsarno@syr.edu

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for a New York Teaching certification for grades 7-12 in mathematics. It is an alternative to the existing undergraduate Arts and Sciences/Education dual programs in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title Mathematics. The second admission stage involves an application to graduate school. Each admission stage requires a 3.0 cumulative GPA and a 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Mathematics Education

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

#### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

#### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

### Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

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## Page 2 Of Mathematics Education

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Contact: Joanna Masingila, 203 Carnegie Building, 315-443-1483, or [jomasing@syr.edu](mailto:jomasing@syr.edu)

In addition to the professional education requirements, students in mathematics education complete the Bachelor of Science in mathematics and the following requirements:

### Core Requirements

Mathematics education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- WRT 205 Writing Studio 2 OR
- WRT 209 Writing Studio 2 (Honors) (3 credits)
- One approved history (HST) course (3 credits)

- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts related course within Arts and Sciences (HOA or HOM) or other approved humanities course focusing on one or more of the arts (3 credits)
- One humanities course (cannot be history (HST) or fine arts (FIA) (3 credits)
- One multicultural humanities or social science course two-course sequence in calculus-based physics (3 credits)
- Two course sequence in calculus-based physics (PHY 211, 212, 221 and 222) (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study

### Mathematics Content

- MAT 295 Calculus I (4 credits)
- MAT 375 Introduction to Abstract Mathematics (3 credits)
- MAT 296 Calculus II MAT (4 credits)
- MAT 331 First Course in Linear Algebra (3 credits)
- MAT 397 Calculus III (4 credits)
- MAT 412 Introduction to Real Analysis I (3 credits)
- MAT 512 Introduction to Real Analysis II (3 credits)
- MAT 521 Introduction to Probability and Statistics (3 credits)
- MAT 525 Mathematical Statistics OR
- MAT 526 Probability (3 credits)
- MAT 531 Second Course in Linear Algebra (3 credits)
- MAT 534 Introduction to Abstract Algebra (3 credits)
- MAT 541 Introduction to Number Theory (3 credits)
- MAT 551 Fundamental Concepts of Geometry (3 credits)
- MAT 593 History of Mathematics (3 credits)
- One 400 level or higher mathematics course, by advisement (3 credits)

## Medical Anthropology

Minor in Medical Anthropology

Contact:  
Robert Rubinstein, rar@syr.edu

Faculty Tom Brutsaert, Sandra D. Lane, Shannon A. Novak, Deborah Pellow, Rebecca Peters, Robert A. Rubinstein, Maureen Trudelle Schwarz, John Marshall Townsend, Cecilia Van Hollen

Medical anthropology is a vibrant subfield of anthropology with both academic and practical dimensions that explores the relationships among society, culture, health, illness, and medicine. This minor is designed to introduce undergraduates to the field of medical anthropology in order to prepare them for applied work or future research in the area of global health. This minor may be appropriate for students pursuing degrees in the health sciences, international relations, STS, or other social sciences such as anthropology, sociology or political science.

### General Requirements:

To complete a minor in medical anthropology, students must take a minimum of 18 credits, with 12 credits at the 300-400 level.

Required courses: 12 credits

- ANT 111: Introduction to Cultural Anthropology.
- ANT 131: Introduction to Biological Anthropology
- One of the following courses: ANT 357: Health, Healing, and Culture; ANT 465: Critical Issues in Medical Anthropology; ANT/HTW 463: Global Health
- ANT 481: Ethnographic Techniques

Elective courses: 6 credits

Students must take at least 2 courses from the following list:

- ANT 357: Health, Healing, and Culture
- ANT/HTW/MES 382: Health in the Middle East
- ANT 400/600: Medical and Religious Pluralism
- ANT 400/600: Reading the Body
- ANT 433: Human Osteology
- ANT 434: Anthropology of Death
- ANT 436: Bioarchaeology

ANT/WGS 455: Culture and AIDS  
ANT/WSP/HTW 462: Culture and Reproductive Health and Medicine  
ANT/HTW 463: Global Health  
ANT 465: Critical Issues in Medical Anthropology  
ANT 467: Culture and Mental Disorders  
ANT 469: Medical Anthropology in Ecological Perspective  
HTW 401: Epidemiology  
HTW 415: Public Health Ethics

Students may petition to have other courses count towards the Minor in Medical Anthropology. Petitions must be approved by the Department of Anthropology.

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## Certificate In Medicolegal Death Investigation

### Contact:

Michael Sponsler, sponsler@syr.edu  
Professor of Chemistry, Director of Curricular Programs for the Forensic and National Security Sciences Institute at Syracuse University  
1-014 Center Sci & Tech  
315-443-4880

### Faculty:

Michael Sponsler, sponsler@syr.edu  
1-014 Center Sci & Tech  
315-443-4880

### Program Description:

The Certificate in Medicolegal Death Investigation is a 12-credit program that offers instruction that can be tailored to a wide variety of professionals who may either directly or tangentially become involved in cases of deaths that require investigation. In addition to those in the medicolegal field, this includes primary responders (police officers, paramedics, etc.), coroners, funeral directors, and others who have not yet earned a bachelor's degree. Knowledge gained in this certificate will help these professionals to aid the investigation in death cases by preserving evidence, providing suitable documentation, and appropriately interacting with others at the scene or involved in the case. Thus, this certificate program will help these various people become more effective in their own professions as it intersects with death investigation.

### Admission:

The primary criterion for admission into this program will be employment in a position that potentially impacts the investigations in death cases, requiring the knowledge that this program offers.

### Requirements:

I. GATEWAY COURSE - 3 Credits Required  
FSC 435 Medicolegal Death Investigation I 3 cr.  
FSC 436 Medicolegal Death Investigation II 3 cr.  
FSC 437 Medicolegal Death Investigation for Emergency Responders 3 cr.

II. ELECTIVES - 9 Credits Required  
FSC 435 Medicolegal Death Investigation I 3 cr.  
FSC 436 Medicolegal Death Investigation II 3 cr.  
FSC 437 Medicolegal Death Investigation for Emergency Responders 3 cr.  
FSC 440 Special Topics in Forensic Science (approved topics only\*) 3 cr.  
FSC 451 Forensic Pathology 3 cr.  
FSC 453 Forensic Toxicology 3 cr.  
FSC 462 Forensic Entomology 3 cr.  
FSC 463 Bloodstain Pattern Analysis 3 cr.  
FSC 467 Forensic Photography 3 cr.  
FSC 468 Crime Scene Investigation 3 cr.  
FSC 490 Independent Study or Internship in Forensic Science 1-6 cr.

\*Relevant workshops will be run under FSC 440, and these will be identified as appropriate for use as electives in this program.

Transfer Credit:  
Maximum of 3 credits

Part-time Study:  
May be pursued

Degree:  
Certificate in Medicolegal Death Investigation

Total Credits: 12 (limit of 3 transfer credits)

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## Medieval And Renaissance Studies Minor

Medieval and Renaissance Studies  
Amanda Eubanks Winkler, Advisor  
308 Bowne Hall  
315-443-4584  
awinkler@syr.edu

Faculty Crystal Bartolovich, Jean-François Bédard, Dympna Callaghan, Albrecht Diem, Laurinda Dixon, Wayne Franits, Hope Glidden, Samantha Kahn Herrick, Chris Kyle, Matilde M. Mateo, Gary M. Radke, Dennis Romano, Stephanie Shirilan, Junko Takeda, Amanda Winkler

### Requirements:

Medieval and Renaissance Studies explores the birth of our own familiar world while introducing students to an often alien and mysterious past. Students will embark an intellectual adventure through coursework that focuses on the advent of science, the voyages of discovery, the birth of democracy, the writings of the great poets from Dante to Shakespeare, the monumental achievements of artists such as Michelangelo and Rembrandt, the birth of print culture and censorship, monastic life, the Reformation, the beginnings of capitalism and consumerism, as well as the power of city states.

The minor is open to all undergraduates university-wide.

Total Credits Needed: 18 credits distributed as follows:

I. Two courses (6 credits) from the group of courses listed below (no restrictions):

- ETS 113 - Survey of British Literature before 1789
- ETS 121- Introduction to Shakespeare
- HOA 105 - Arts and Ideas
- HOM 165 - Understanding Music, Part I .
- HOM 266 - History of European Music before 1750
- HST 111 - Early Modern Europe, 1350-1815
- HST 211 - Medieval and Renaissance Europe
- HST 212 - Religion in Medieval and Reformation Europe
- HST 231 - English History: from the Roman Occupation to the Revolution of 1688
- LIT 245 - Florence and Renaissance Civilization

II. The remaining 12 credits must be courses at the 300 level or above.

III. One upper division history [HST] course (3 credits) on a Medieval and/or Renaissance topic.

IV. Three additional upper division courses (9 credits) on Medieval and/or Renaissance topics. See List of courses below.

V. No more than three courses (9 credits) upper or lower division may be taken in the same discipline.

List of Upper Division Courses in Medieval and Renaissance Studies.

N.B. In addition to the courses below, there are many courses in ETS, History (300 Special topics, 401, Senior seminars), LIT/ITA and other departments whose subject changes from semester to semester and that can be counted toward the minor. Courses are also offered in the various SU Abroad centers that may also be counted toward the minor. Those wishing to have any of these courses count should petition the coordinator (advisor) of the Medieval and Renaissance Studies Minor to have these courses count toward the minor.

- HOA 410 -Art and Ideology of Medieval Spain
- HOA 323/ARC 332 - Sixteenth-Century Italian Architecture
- HOA 322/ARC 335 - Renaissance Architecture in Italy, 1400-1520
- HOA 324/ARC 336 - Italian Seventeenth-Century Architecture
- HOA 430 - Northern Renaissance Art, 15th century
- HOA 431 - Northern Renaissance Art, 16th century
- HOA 311 - Italian Medieval Art
- HOA 312 - Romanesque Art
- HOA 313 - Gothic Art
- HOA/DRA 561 - Music and Shakespeare
- HOA 421 - Early Renaissance Art
- HOA 422 - High Renaissance Art and Mannerism

- HOA 425 - Leonardo da Vinci: Artist and Engineer
- HOA 426 - Michelangelo's Italy
- HOA 445 - Baroque Art in Southern Europe
- HOA 446 - Baroque Art in Northern Europe
- HOA 439/ARC 433 - French Architecture, 16th and 17th Centuries
- HOA 530 - History of Printmaking
- HOA 540 - Seventeenth-Century Dutch Painting
- HOA 541 - Arts and Ideas in the Seventeenth Century
- HST 310 - Early Medieval Europe
- HST 311 - Medieval Civilization
- HST 312 - Reformation of the Sixteenth Century
- HST 313 - French Revolution: Sun King to Guillotine
- HST 355 - The Italian Renaissance
- HST 357 - From Henry VIII to Elizabeth I
- HST 358 - Revolution and Reaction in 17th Century England
- HST 367 - Plague in European Society
- HST 376 - Renaissance London
- HUM 420 - Studies in Renaissance Cultural History
- PHI 311 - The Rationalists
- SPA 441 - Medieval and Golden Age Literature
- SPA 443 - Cervantes

## Middle Eastern Studies Major

Program Director: Mehrzad Boroujerdi  
 332 Eggers Hall  
 315-443-5877  
 mes@maxwell.syr.edu

Faculty Ahmed E. Abdel-Meguid, Hossein Bashiriyeh, Mehrzad Boroujerdi, Zachary J. Braiterman, Miriam Fendius Elman, Carol Fadda-Conrey, Ken Frieden, Rania Habib, Susan Henderson, Amy Kallander, Tazim R. Kassam, Osamah F. Khalil, Amos Kiewe, Natalie Koch, Jaklin Kornfilt, Sandra D. Lane, Dana M. Olwan, Kara Richardson, Robert A. Rubinstein, Ossama "Sam" Salem, Yüksel Sezgin, James W. Watts

The Middle Eastern Studies Program provides students with the opportunity to study the languages, history, culture, religions and politics of the Middle East. Overseen by the College of Arts & Sciences and the Moynihan Institute of Global Affairs at the Maxwell School, the MESP brings together faculty members from many departments including Anthropology, Architecture, Art and Music Histories, English and Textual Studies, Geography, Health and Wellness, History, International Relations, Language, Literature, and Linguistics, Law, Philosophy, Political Science, Religion and Women's and Gender Studies.

### MAJOR REQUIREMENTS

This interdisciplinary major, leading to a B.A. in Middle Eastern Studies, requires 36 credits in Middle Eastern Studies courses. The major will require students to complete (a) three core courses, (b) three consecutive semesters in one of the regional languages (Arabic, Hebrew, Persian, and Turkish), (c) two lower division courses and (d) three upper division courses. The Major is open to all undergraduates who have completed at least two Middle Eastern content courses (one of which can be a language course) and have a GPA of 2.8 or better. Prospective majors must meet with the Program Director before submitting a major application. At least 18 of the 36 credits required for the major should be in courses numbered above 299. A maximum of six credits of independent study can be applied to the major by petition. Experience credit courses (i.e., internships) may not be used to satisfy the requirements of the major.

Required Core Courses (choose three courses, 9 credits)

Language Category(three consecutive courses, 12 credits):

Lower Division Courses(two courses, 6 credits):

Upper Division Courses (three courses from across at least two different departments, 9 credits)

- ETS/MES 315: Arab American Literature and Culture
- MES 350: Gender, Violence, and Sexualities in the "War on Terror"
- MES 360: Reading Gender and Sexualities: Gender and Sexuality in the Arab World
- WGS 453: Feminisms, Sexualities, and Human Rights in Middle Eastern Societies

Required Core Courses(choose three courses, 9 credits)

- MES/HST 318: Middle East to 1900

- MES/PSC 344: Politics of the Middle East
- MES 430: Senior Seminar in Middle Eastern Studies, including but not limited to:
  - ANT/IRP/MES 468/668: Middle East in Anthropological Perspective
  - ANT/IRP/MES 707: Culture and World Affairs
  - ARC 435/735: Islamic Architecture
  - HST/MES 644: Israel & Palestine: Historical Approaches
  - REL 607: Ancient Religious Rhetoric
  - REL 625: Pluralism in Islam
  - REL/ANT 628: Muslim Rituals, Practices, and Performances
  - REL/JSP 676: Religion and Judaic Literature
  - PSC/MES 682: Social Theory & Middle East Politics
  - PSC/MES/PAI 684: International Relations of the Middle East

Language Category(three consecutive courses, 12 credits):

- ARB 101,102, 201, 202, 301, 302 Arabic
- PRS 101,102, 201, 202 Persian
- HEB 101,102, 201, 202, 301, 303 Hebrew
- TRK 101,102, 201, 202 Turkish

Lower Division Courses(two courses, 6 credits):

- ARB 202 Arabic III
- HEB 202 Hebrew III
- ETS 235 Classics of World Literature I
- PRS 202 Persian III
- REL/JSP 107 Religion, Literature, Film
- REL/JSP 114 The Bible
- REL/JSP/LIT 131 Great Jewish Writers
- REL/JSP 135 Judaism
- REL/SAS/MES 165 Discovering Islam
- REL/JSP 215 The Hebrew Bible
- REL 217 The New Testament
- REL/JSP/LIT 231 Judaic Literature
- REL 261 Faith & Reason in Islamic thought & Civilization
- TRK 202 Turkish III

Upper Division Courses (three courses from across at least two different departments, 9 credits)

- ANT/HTW/MES 382 Health in the Middle East
- ANT/IRP/MES 468/668 Middle East in Anthropological Perspective
- ANT/IRP/MES 707 Culture in World Affairs
- ARB 301 Arabic V
- ARB 302 Arabic VI
- ARC 435/735/HOA 389 Islamic Architecture
- ETS 410/MES 406 The Middle East in Graphic Novel
- ETS/MES 315: Arab American Literature and Culture
- HEB 301 Advanced Hebrew
- HEB/JSP 401 Hebrew Literature in the Original
- HOM/MES/SAS 386: Sounds of the Silk Road
- HST/MES 318 The Middle East to 1900
- HST/MES 319 Middle East in the 20th Century
- HST/PSC/MES 368 Islam and the West
- HST/WGS 379 Race, Gender and Colonialism
- HST/MES 644 Israel and Palestine: Historical Approaches
- HUM 404 "Azahar": The Islamic Conquest and the Christian Reconquest
- LIT/MES 336 Arabic Cultures
- MES 350 Gender, Violence, and Sexualities in the "War on Terror"
- MES 360: Reading Gender and Sexualities: Gender and Sexuality in the Arab World
- MES 495 Distinction Thesis in Middle East Studies
- PHI 308 Classical Islamic Philosophy
- PSC/REL/JSP/MES 342 Religion and Politics in the Israeli-Palestinian Conflict
- PSC/MES 344 Politics of the Middle East

- PSC/MES 345 Islam and Politics in Asia
- PSC/MES 349 Politics of Iran
- PSC/SOC 362/REL 355 Religion, Identity & Power
- PSC/MES 366 Representations of the Middle East
- PSC/MES 367 Oil, Water & War
- PSC/MESHST 368 Islam and the West
- PSC/MES 391: Revolutions in the Middle East
- PSC/MES 392: Sociology of Islamic Fundamentalism
- PSC/MES 393: Middle Eastern Political Systems
- PSC/MES 394: History of Islamic Political Thought
- PSC/MES 395: Democratization in the Muslim World
- PSC/MES 682 Social Theory and Middle East Politics
- PSC/MES/IRP 684: International Relations of the Middle East
- REL 301 Ancient Near Eastern Religions and Cultures
- REL/JSP 307 The Temple and the Dead Sea Scrolls
- REL/JSP/MES 308 Ancient Judaism and the Origins of Christianity
- REL/JSP 311 The Bible as Literature
- REL/HUM/JSP/MES 321 Christians, Jews and Muslims
- REL/JSP 334 Modern Judaism
- ETS 315/REL/JSP/LIT 335 Israeli Literature and Culture
- REL/SAS/MES 364 Muslim Poets and Storytellers
- REL/SAS 367/MES 365 God and Beauty in Islamic Art
- REL/JSP 416 The Torah/Pentateuch as a Scripture
- REL/PHI/JSP 435 Modern Judaic Thought
- REL/WGS/SAS/MES 465 /REL 626 Beyond the Veil: Gender Politics in Islam
- REL 607 Ancient Religious Rhetoric
- REL 625 Pluralism in Islam
- REL/ANT 628 Muslim Rituals, Practices, and Performances
- REL/JSP 676 Religion and Judaic Literature
- WGS 453: Feminisms, Sexualities, and Human Rights in Middle Eastern Societies

## Middle Eastern Studies Minor

Middle Eastern Studies Minor

Mehrzad Boroujerdi  
mes@maxwell.syr.edu  
315-443-5877

This interdisciplinary minor examines the history, culture, languages, religions, and politics of the Middle East. Faculty research and teaching focus on ancient source texts, the art, literature, history, and culture of the Middle East; conflict resolution; gender issues; and contemporary political issues. Students may study these and other aspects of the Middle East.

Requirements:

The minor requires 20 credits in Middle Eastern Studies, at least 12 in courses numbered 300 or above. Students take an 11 credit core consisting of:

1. an introductory course (either MES/PSC 344 or MESHST 318)
2. two consecutive courses in one regional language (Arabic, Hebrew, Persian, Turkish) between levels 101 and 202

Nine additional credits are required in upper division courses from at least two different departments including but not limited to those listed below. Students may take any of the approved courses or petition to substitute other courses with substantial Middle East content.

Approved Courses:

- ANT/HTW/MES 382 Health in the Middle East
- ANT/IRP/MES 468 Middle East in Anthropological Perspective
- ARB 301 Arabic V
- ARB 302 Arabic VI
- ARC 435/HOA 389 Islamic Architecture
- ETS 410/MES 406 The Middle East in Graphic Novels
- ETS/MES 315: Arab American Literature and Culture

- HEB 301 Advanced Hebrew
- HEB/JSP 303 Advanced Hebrew II
- HEB/JSP 401 Hebrew Literature in Original
- HST/MES 318 The Middle East to 1900
- HST/MES 319 Middle East in the 20th Century
- HST/WGS 379 Race, Gender and Colonialism
- HUM 404 "Azahar": The Islamic Conquest and the Christian Reconquest
- LIT/MES 336 Arabic Cultures
- HOM/MES/SAS 386: Sounds of the Silk Road
- HST/PSC/MES 368 Islam and the West
- MES 350: Gender, Violence, and Sexualities in the "War on Terror"
- MES 360: Reading Gender and Sexualities: Gender and Sexuality in the Arab World
- PHI 308 Classical Islamic Philosophy
- PSC/REL/JSP/MES 342 Religion and Politics in the Israeli-Palestinian Conflict
- PSC/MES 344 Politics of the Middle East
- PSC/MES 345 Islam and Politics in Asia
- PSC/MES 349 Politics of Iran
- PSC/SOC 362/REL 355 Religion, Identity and Power
- PSC/MES 366 Representations of the Middle East
- PSC/MES 367 Oil, Water & War
- PSC/MES/HST 368 Islam and the West
- PSC/MES 391: Revolutions in the Middle East
- PSC/MES 392: Sociology of Islamic Fundamentalism
- PSC/MES 393: Middle Eastern Political Systems
- PSC/MES 394: History of Islamic Political Thought
- PSC/MES 395: Democratization in the Muslim World
- REL 301 Ancient Near Eastern Religions and Cultures
- REL/JSP 307 The Temple and the Dead Sea Scrolls
- REL/JSP/MES 308 Ancient Judaism and the Origins of Christianity
- REL/JSP 311 The Bible as Literature
- REL/HUM/JSP/MES 321 Christians, Jews and Muslims
- REL/JSP 334 Modern Judaism
- REL/JSP/LIT 335/ETS 315 Israeli Literature and Culture
- REL/SAS/MES 364 Muslim Poets and Storytellers
- REL/SAS 367/MES 365 God and Beauty in Islamic Art
- REL/PHI/JSP 435 Modern Judaic Thought
- REL/WGS/SAS/MES 465/REL 626 Beyond the Veil: Gender Politics in Islam
- WGS 454: Feminisms, Sexualities, and Human Rights in Middle Eastern Societies

## Modern Foreign Language Major

Modern Foreign Language Major

Contact: Gail Bulman  
 Associate Professor of Spanish  
 340 H.B. Crouse  
 315-443-5385  
[gabulman@syr.edu](mailto:gabulman@syr.edu)

The major requires 36 credits in courses numbered 202 and above in two of the following languages: French, German, Italian, Russian, and Spanish. Normally students will take 18 credits in each of the two languages. However, they may petition to take 21 credits in one language and 15 in the other.

Modern Foreign Language majors are strongly encouraged to spend a semester or a year abroad.

## Modern Jewish Studies

Modern Jewish Studies  
 Zachary J. Braiterman, Director

zbraiter@syr.edu  
501 Hall of Languages  
315-443-5719

Faculty Zachary J. Braiterman, Erella Brown, Miriam Fendius Elman, Ken Frieden, Sanford Sternlicht, Harvey Teres, Laurence Thomas, James W. Watts

This interdisciplinary major explores Modern Jewish culture and religion. Faculty research and teaching focus on the Hebrew and Yiddish fiction, European and American literature, Jews and Judaism in modern Europe and America, the arts, thought and culture, Israel, and the Palestinian-Israeli conflict. The major provides broad, interdisciplinary knowledge of Jewish experience both historical and contemporary, and is meant to prepare students for further pursuits in Jewish culture, history, and religion upon graduation, either academically or in private life. The Jewish Studies Program offers courses and advising to students, and a range of events (lectures, films, musical performances, etc.) for students, faculty, and the larger community. Graduate students are eligible to apply for the Benjamin Fellowship, and all students may submit Holocaust-related papers to the undergraduate and graduate Kalina Prize competition.

#### Major Requirements:

The major requires 24 credits of appropriate work. Because of the interdisciplinary character of Jewish Studies courses, it is crucial that the following clusters be delineated and approved in consultation with the Director.

1. Students take two courses selected from

- JSP/REL 114: The Bible
- JSP/REL 131: Great Jewish Writers
- JSP/REL 135: Judaism
- JSP/REL 215: The Hebrew Bible
- JSP/REL 231: Judaic Literature

2. Students will demonstrate proficiency at the level of HEB 202 (by way of coursework or a placement exam), and will take 18 credits in the following HEB and/or JSP upper-division courses. Among these courses students are required to take the Judaic Studies Senior Seminar (JSP/REL 439).

- JSP/REL 307: The Temple and the Dead Sea Scrolls
- JSP/REL 311: The Bible as Literature
- JSP/REL 331: European & American Judaic Literature
- JSP/REL 333: Yiddish Literature in Translation
- JSP/REL 334: Modern Judaism
- JSP/REL 335: Israeli Literature & Culture
- JSP/REL 337: Shoah: Responding to the Holocaust
- JSP/REL 416: The Torah/Pentateuch as a Scripture
- JSP/REL 435: Modern Judaic Thought
- JSP/REL 439 Judaic Studies Senior Seminar
- JSP/REL 490: Independent Study
- HEB 301: Advanced Hebrew I
- HEB 303: Advanced Hebrew II
- HEB 401: Hebrew Literature in the Original

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## Music History And Cultures Major

Theo Cateforis, Chair  
308 Bowne Hall  
315-443-4184

Amanda Winkler, Director of Undergraduate Studies  
308 Bowne Hall  
315-443-4584

Faculty Carol Babiracki, Theo Cateforis, Rodney Foster, Sydney Hutchinson, Bette Kahler, Stephen Meyer, Amanda Winkler

The major in Music History and Cultures is designed for students who wish to study music in its historical, social and cultural contexts and in relation to other arts. Although majors are encouraged to develop performance skills, the focus of the degree is on the study of musical cultures and styles in a liberal arts environment.

#### Lower Division Requirements (14 credits)

1) Musical skills (8 credits). Students are required to demonstrate competency in basic musical skills by successfully completing the first-year music theory sequence (MTC 145 and MTC 146), and the corresponding first-year ear training sequence (MTC 147 and MTC 148).

MTC 145 Diatonic Harmony I (3)  
MTC 146 Diatonic Harmony II (3)  
MTC 147 Ear Training (1)  
MTC 148 Ear Training (1)

2) Introduction to music history and culture (6 credits). Students are required to complete two courses from the following list. One of these two courses must be from the European music history sequence (HOM 266, 267, 268):

- HOM 165: Understanding Music I
- HOM 166: Understanding Music II
- HOM 195: Performance Live
- HOM 266: European Music before 1750
- HOM 267: European Music 1750-1945
- HOM 268: European and American Music since 1945
- HOM 285: Introduction to World Music

Upper Division Requirements (18 credits)

1) Breadth requirement (9 credits). Students must complete at least one upper-division course in European Music (HOM 360s, 460s, 560s) and two courses from among the following areas: Music and Technology (HOM 310s, 410s, 510s), Latin American Music (HOM 320s, 420s, 520s), Music and Dance (HOM 350s, 450s, 550s), American Music (HOM 370s, 470s, 570s), and Ethnomusicology / World Music (HOM 380s, 480s, 580s). Students cannot take both non-European music courses in the same area.

2) Major electives (6 credits). Students must take at least 6 additional upper-division credits. 3 of these credits may be earned in non-music HOA courses (i.e. art history or history of architecture). Candidates for departmental honors (see below) may use HOM 496 (3 credits) to count toward the fulfillment of this requirement.

3) Students must fulfill at least one of these upper-division requirements with a 500-level course.

4) HOM 396: Junior Seminar: Musicology in Action (3 credits). This course, required of all Music History and Culture majors, will normally be offered each spring semester. The specific content of the course will vary from year to year, but its purpose will remain the same; to stimulate critical thought about music and to hone our students' research and writing skills.

5) HOM 496: Distinction in Music History and Cultures (3 credits, required only for students earning a degree with distinction). Majors who have earned a cumulative GPA of at least 3.4 and a cumulative departmental GPA of at least 3.7 will be invited to earn a degree with distinction. In order to earn this honor, students are required to enroll in HOM 496. These students will work independently, under the supervision of a faculty member, to complete a large-scale project in some aspect of music history or cultures. Students will determine the topic for their Distinction Project in consultation with a thesis advisor, whom they will choose from among the Music History and Culture faculty (in exceptional cases other faculty may serve in this capacity). The thesis will also be evaluated by a second reader, chosen by the thesis advisor (in consultation with the student) from other faculty in Music History and Cultures or related disciplines. In most cases, the project will take the form of a formal essay approximately 6000 words in length. Alternative types of projects are also possible, provided that they meet with the approval of the Music History and Cultures faculty. Regardless of the topic, the project should constitute original work, serving as a persuasive demonstration of the student's skills and talents as well as a vivid component of the student's credentials.

Performance Requirements (8 - 12 credits)

In addition to the course requirements listed above, students in the B. A. in Music History and Cultures program are required to complete at least four semesters of individual studio lessons. Students are also required to participate in a Syracuse University performing ensemble for at least four semesters. These requirements may be fulfilled at any point in the degree program.

Students may petition to have up to 9 credits of appropriate courses in music history taken outside the department (non-HOM courses) count toward the music history and cultures major.

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## Music History And Cultures Minor

Theo Cateforis, Chair  
308 Bowne Hall  
315-443-4184

Amanda Winkler, Director of Undergraduate Studies  
308 Bowne Hall  
315-443-4584

Faculty Carol Babiracki, Theo Cateforis, Rodney Foster, Sydney Hutchinson, Bette Kahler, Stephen Meyer, Amanda Winkler

The minor in music history and cultures requires 18 credits of coursework drawn from the departmental HOM offerings. Of these 18 credits, 6 may be earned in courses from the lower-division, music history courses (100 and 200 level) while the remaining 12 must be earned in upper-level (300 level and above). Students may petition to have up to 6 credits of selected topics courses in music history (HOM 300, HOM 400, HOM 500 or HOM 600) count toward the minor. In addition, students may petition to have up to 6 credits of music history courses taken outside the department count toward the minor.

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## Native American Studies Minor

Native American Studies

Scott Manning Stevens

314 Tolley Humanities

scsteven@syr.edu

315-443-8785

Faculty Douglas V. Armstrong, Philip P. Arnold, Christopher R. DeCorse, Stephanie A. Fetta, Gregg Lambert, Richard R. Loder, Maureen Trudelle Schwarz, Sascha Scott

The Minor in Native American Studies provides an understanding of the religious, historical, political and aesthetic dimensions of the Native Nations of the Americas. In consultation with the advisor students plan the programming according to their individual needs and interests.

### Requirements:

The minor is open to the full university community. It requires completion of six courses (18 credits) from two different departments. Twelve of the 18 credits must be in courses numbered above 299. Examples of available courses leading to a minor in Native American Studies could include (but are in no way limited to) the following:

- NAT 105 Introduction to Native American Studies
- REL/NAT 142 Native American Religion
- SOC/WGS 248 Ethnic Inequalities and Intergroup Relations
- ETS 230 Ethnic Literary Traditions-Native American Literature
- ANT 273 & NAT/REL244 Indigenous Religions
- NAT 300/EFB 305 Indigenous Issues and the Environment
- NAT 301 Iroquois Verb Morphology 1
- NAT 305 Iroquois Phonetics and Phonology
- NAT 302 Iroquois Verb Morphology 2
- NAT 306 Iroquois Syntax and Semantics
- NAT 308 Iroquois Linguistics In Practice
- ETS 310/NAT 400 Literary Periods: Contemporary American Indian Fiction
- ETS 315/NAT 400 Ethnic Literatures and Cultures: American Indian Political Literature 820-1930
- NAT 346 / HOA 387 Native North American Art
- HST 302 Early American History: From Invasion to Empire 1607-1697
- HST 330 Iroquois History: Peoples of the Long House
- ANT/NAT 323 Peoples and Cultures of Native North America
- REL/NAT 347 Religion and the Conquest of America
- REL/NAT 348 Religion and American Consumerism
- SOC/NAT 441 Federal Indian Policy and Native American Identity
- SOC/NAT 444 Contemporary Native American Movements
- ANT/NAT 445 Public Policy Archaeology
- ANT/NAT 447 Archaeology of the Americas
- ANT/NAT 456 Representations of Indigenous Peoples in Popular Culture
- ANT/NAT 459 Contemporary Experience in Native North America
- ANT/NAT 461 Museums and Native Americans
- EFB 496 Plants and Culture:

Other selected topics courses may apply when content is relevant and permission is secured from the director of Native American Studies.

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## Integrated Learning Major In Neuroscience

Integrated Learning Major in Neuroscience

Contact: John Russell

366 Life Sciences Complex

Professionals in technically demanding fields are commonly asked to apply their expertise to other seemingly unrelated disciplines. As a result, they must have a comprehensive understanding of not only their own field, but also secondary knowledge of another broadly based, often interdisciplinary, field of study. A chemist might lend his or her expertise to a matter of legal or ethical importance. A curator might evaluate scientific and historical evidence about a painting's authenticity. A journalist might research a story involving science, medicine, and technology.

Integrated Learning Majors provide broad, interdisciplinary opportunities for students through valuable tools and knowledge in a variety of fields. This synergistic approach adds scholarly mettle to both the major and the interdisciplinary program, while exploiting their connective properties. For example, an undergraduate interested in chemistry could have an integrated learning program in forensic science. Or a student pursuing archeology could have an integrated learning major in ethics, with focus on social science research.

Majors in the integrated learning major in Neuroscience will integrate with: Biochemistry, Biology, Communication Sciences & Disorders (CSD), Linguistics, Philosophy, Physics and Psychology) and two majors in Engineering and Computer Sciences (Bioengineering and Chemical Engineering).

Requirements: An overall GPA of at least 2.0; a GPA of no lower than 3.0 in the 24 credit hours counting towards the Neuroscience IL Major, a grade no lower than "B-" in the two required entry level courses (BIO 211 and PSY 223) and students must successfully complete all of the requirements necessary to obtain a major in one of the following majors: Biochemistry, Biology, Communication Sciences & Disorders (CSD), Linguistics, Philosophy, Physics and Psychology) and two majors in Engineering and Computer Sciences (Bioengineering and Chemical Engineering). Other requisite majors may also be possible with approval of director.

Required Entry Courses: 6 credits (Grade of B- or better required in these two entry courses)

- BIO/NEU 211 Introduction to Neuroscience and
- PSY 223 Biopsychology (prereq PSY 205)

Required courses: Intersection of Mind and Brain; 9 credits

- PSY 332 Cognitive Psychology (prereq: PSY 205) or
- COG/NEU 301 Intro to Cognitive Science
- CSD 409 Cognitive Neuroscience of Speech & Language
- BIO/NEU 407 Advanced Neuroscience

Elective Courses: 6 credits chosen from the courses listed below. Two courses must be thematically related to one another and from fields other than the students primary major. Courses with the same prefix are presumed to be thematically-related. Other courses may be paired as thematically-related with permission of the student's advisor.

#### Biology

- BIO 326 Genetics (prereq BIO 121, 123, and CHE 106)
- BIO 327 Genetics and Cell Biology II (prereq BIO 121, 123, and CHE 106)
- BIO 417 Animal Behavior and Evolutionary Biology Lab (prereq BIO 345 or permission)

#### Communication Sciences & Disorders

- CSD 315 Anatomy & Physiology of the Speech System (prereq: CSD 212)
- CSD 325 Fundamentals of Hearing Science (prereq: CSD 212)
- CSD 345 Fundamentals of Speech Science (prereq: CSD 315)
- CSD 422 Development of Speech and Language
- CSD 429 Basic Clinical Audiology

#### Linguistics

- LIN 301 Introduction to Linguistic Analysis (prereq: LIN 201)
- LIN 431 Phonological Analysis (prereq: LIN 301)
- LIN 441 Syntactic Analysis (prereq: LIN 301)
- LIN 451 Morphological Analysis (prereq: LIN 301)
- LIN 491 Universal Grammar and Second Language Acquisition (prereq: LIN 301)
- LIN 571 Topics in Sociolinguistics

#### Mathematics

- MAT 397 Calculus III (prereq: MAT 296 or equivalent)
- MAT 331 First Course in Linear Algebra (prereq: MAT 286 or 296)
- MAT 485 Differential Equations and Matrix Algebra for Engineers (prereq: MAT 397)

#### Philosophy

- PHI 378 Minds and Machines (prereq: any PHI or computer science course)
- PHI 373 Introduction to the Philosophy of Science (prereq: PHI 107, 251, or 551)
- PHI 375 Philosophy of Biology: What can Evolution Explain (prereq: 1 PHI and 1 BIO course)
- PHI 377 Philosophy of Psychology (prereq: PSY 205)
- PHI 533 Philosophy of Mind

#### Physics

- PHY 307 Science and Computers I (prereq: PHY 211)
- PHY 308 Science and Computers II (prereq: PHY 307 and MAT 285/286 or MAT 295/296)
- PHY 315 Biological and Medical Physics (prereq: PHY 212 or 216)
- PHY 360 Vibrations, Waves, and Optics (Prereq: PHY 212)
- PHY 444 Soft Matter (prereq: any 300-level MAT or physical science course)
- PHY 531 Thermodynamics and Statistical Mechanics (prereq: PHY 361)

#### Psychology

- PSY 315 Drugs & Human Behavior (prereq: PSY 205)
- PSY 321 Sensation & Perception (prereq: PSY 205)
- PSY 323 Brain & Behavior (prereq: PSY 205)
- PSY 324 Developmental Biopsychology (prereq: PSY 205)
- PSY 331 Lab in Sensation and Perception (prereq: PSY 313, coreq or prereq PSY 321)
- PSY 332 Lab in Cognitive Psychology (prereq: PSY 205, coreq or prereq PSY 322)
- PSY 334 Lab in Developmental Biopsychology (prereq: PSY 205, coreq or prereq PSY 324)
- PSY 373 Human Memory (prereqs: PSY 204, PSY 322)
- PSY 382 Health Psychology (prereq: PSY 205)
- PSY 392 Stress and Health (prereq: PSY 205)
- PSY 426 Cognitive Neurochemistry (prereq: PSY 205)
- PSY 437 Cognition & Aging (prereq: PSY 205)

#### Biomedical and Chemical Engineering

- BEN 364/664 Quantitative Physiology (prereq: BEN 305)
- BEN 458 Biomedical Imaging

#### Engineering and Computer Sciences

- ELE 351 System and Signal Analysis (prereq: ELE 232, MAT 296)
- ELE 352 Digital Signal Processing (prereq: ELE 351)

#### Required Capstone Course: 3 credits

- PSY 496 Neuroscience in the Arts, the Sciences, and Society

## Philosophy Major

Contact: Director of Undergraduate Studies

541 Hall of Language

315-443-2245.

Faculty Kenneth Baynes, Frederick C. Beiser, Benjamin Bradley, Janice Dowell, Kevan Edwards, Kim Frost, André Gallois, Samuel Gorovitz, Mark Heller, Kris McDaniel, Thomas McKay, Hille Paakkunainen, Kara Richardson, Emily E. Robertson, John E. Robertson, David Sobel, Laurence Thomas, Robert Van Gulick

Using reason and argument, philosophers seek to answer the most fundamental of questions: What am I? What can I know? What must I do? Because the study of philosophy so effectively sharpens and extends the mind, many students find it to be the ideal companion to other courses of study.

The philosophy curriculum has two principal divisions. The first division consists of studies that are central to philosophy proper. There are four core areas: ethics, logic, metaphysics and the theory of knowledge, and the history of philosophy. The second division includes courses devoted to the philosophical examination of other areas of inquiry and culture, such as mathematics, the natural and social sciences, language, politics and the law, the arts, history, education, and religion.

Students particularly interested in political philosophy should see the program description under that heading in this section of the catalog.

Students particularly interested in logic should see the description of the logic concentration, included under “Interdisciplinary Minors” in this section of the

catalog.

## MAJOR REQUIREMENTS

Students seeking a BA in philosophy are required to complete at least 33 credit hours in philosophy, at least 24 credits of which are numbered 300 or above. In order for a course to count towards a student's major program, the student must receive a grade of C or better in the course. Each student must fulfill the following requirements:

1. PHI 251 Introduction to Logic
  2. PHI 401 Philosophy Majors' Seminar
  3. PHI 307 or PHI 510.
  4. PHI 311 or PHI 313.
  5. At least one course from each of the following core areas:
    - A. Metaphysics and Epistemology  
PHI 321 20th Century Theories of Knowledge, Reality and Meaning  
PHI 341 Philosophy of Religion  
PHI 378 Minds and Machines  
PHI 487 History of Epistemology  
PHI 583 Metaphysics  
\*Other appropriate courses as approved by the Director of Undergraduate Studies
    - B. Value Theory  
PHI 317 Social Contract Theory  
PHI 391 History of Ethics  
PHI 393 Contemporary Ethics  
PHI 394 Environmental Ethics  
PHI 395 Philosophy of Art  
PHI 417 Contemporary Political Philosophy  
PHI 493 Contemporary Ethical Issues  
\*Other appropriate courses as approved by the Director of Undergraduate Studies
    - C. Logic, Language and Philosophy of Science  
PHI 373 Introduction to the Philosophy of Science  
PHI 375 Philosophy of Biology: What Can Evolution Explain?  
PHI 377 Philosophy of Psychology  
PHI 551 Symbolic Logic  
PHI 552 Modal Logic  
PHI 555 Philosophy of Mathematics  
PHI 565 Philosophy of Language  
PHI 573 Philosophy of Physical Science  
PHI 575 Philosophy of Social Science  
\*Other appropriate courses as approved by the Director of Undergraduate Studies
- 

## Philosophy Minor

Director of Undergraduate Studies  
541 Hall of Languages  
315-443-2245

Faculty Kenneth Baynes, Frederick C. Beiser, Benjamin Bradley, Janice Dowell, Kevan Edwards, Kim Frost, André Gallois, Samuel Gorovitz, Mark Heller, Kris McDaniel, Thomas McKay, Hille Paakkunainen, Kara Richardson, Emily E. Robertson, John E. Robertson, David Sobel, Laurence Thomas, Robert Van Gulick

### Requirements:

To complete a minor in philosophy, students take 18 credits, 12 of which are in philosophy courses numbered 300 or above. In order for a course to count towards a student's minor program, the student must receive a grade of C or better.

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## Physics Major

Director of Undergraduate Studies

Faculty Cristian Armendariz-Picon, Marina Artuso, Stefan Ballmer, Steven Blusk, Mark Bowick, Duncan Brown, Simon Catterall, JiJi Fan, Martin B. Forstner, Kenneth Foster, Jay Hubisz, Matthew LaHaye, John Laiho, Edward D. Lipson, M. Lisa Manning, M. Cristina Marchetti, Alan Middleton, Liviu Movileanu, Britton Plourde, Carl Rosenzweig, Peter Saulson, Eric A. Schiff, Jennifer Schwarz, Tomasz Skwarnicki, Mitchell Soderberg, Paul Souder, Sheldon Stone, Gianfranco Vidali, Scott Watson

Physicists idealize the behavior of matter and energy in terms of mathematical representations called the “fundamental laws of nature” and seek to explain the properties of nuclei, atoms, molecules, and systems of these particles (gases, liquids, crystals, etc.). Undergraduate courses provide a background in classical physics, quantum mechanics, and laboratory techniques.

The department offers coursework leading to either a B.A. or a B.S. degree. The major leading to the B.S. degree is modeled on the recommendations of the American Physical Society for students intending to pursue graduate work in physics. Students submit a petition to receive a B.S. in physics and should consult the director of undergraduate studies concerning required courses. For information about certification to teach physics at the secondary school level, see “Education/Arts and Sciences (dual program)” in this section of the catalog.

Other information about physics can be found on the Internet at [physics.syr.edu](http://physics.syr.edu).

#### B.A. DEGREE REQUIREMENTS

The B.A. degree in physics is an important accomplishment for students considering careers in such widely varying areas as law, journalism, corporate management, and teaching. In all of these fields a liberal education incorporating serious study of a scientific discipline is an asset.

- Development of analytical and computational skills through the study of advanced undergraduate physics.
- Development of written and verbal communication skills, including the specialized skills required for the communication of technical information.
- Development of a broad understanding of the role of science and technology in modern life. The bachelor of arts degree requires completion of at least 30 credits of physics and astronomy courses.

Eight credits of lower-division courses are required:

- PHY 211 General Physics I (or PHY 215)
- PHY 221 General Physics Laboratory I
- PHY 212 General Physics II (or PHY 216)
- PHY 222 General Physics Laboratory II

Eighteen credits of upper-division physics and astronomy courses are required, including:

- PHY 344 Experimental Physics
- PHY 361 Modern Physics

#### B.S. DEGREE REQUIREMENTS

The B.S. degree is intended to provide a deep understanding of physical principles and the ability to solve challenging technical problems. Many students who complete the B.S. pursue graduate work in physics or other scientific or engineering disciplines or medical school, while others directly go on to use these skills in a variety of technically-oriented careers.

The B.S. degree in physics requires at least 39 credits of physics course work, including at least 30 credits of upper-division courses (numbered 300 or above). The required course work for the B.S. includes:

31 credits in PHY courses:

- PHY 211 (or 215), PHY 212 (or 216) and laboratory PHY 221, 222 [4 + 4]
- PHY 344 – Experimental Physics I [4]
- PHY 360 – Vibrations, Waves & Optics [3]
- PHY 361 – Modern Physics [3]
- PHY 424 - Electricity and Magnetism I [3]
- PHY 523 – Advanced Mechanics [3]
- PHY 531 – Thermodynamics and Statistical Mechanics [3]
- PHY 567 - Quantum Mechanics I [4]

15-18 credits in Mathematics:

- MAT 295/296 Calculus I & II [4 + 4]
- MAT 397 Calculus III [4]
- MAT 485 Differential Equations and Matrix Algebra [3]  
( or MAT 331[3] + MAT 414[3] )

3 credits in Computing:

- PHY 307 Science and Computers [3], or an approved course from ECS, such as ECS 102 or ECS 104, chosen in consultation with your advisor (If PHY 307 is taken, it counts toward 39 total PHY credits.)

5-8 elective PHY credits:

- Additional elective courses chosen in consultation with your advisor. (PHY307 may be used toward elective credits.)

While not required for the B.S, students interested in pursuing graduate study in physics are strongly encouraged to pursue additional course work in consultation with their academic advisor.

Students are also encouraged to take an introductory lecture and lab course from another scientific discipline, including chemistry, biology, or earth science.

For sample syllabi, see the departmental web page: [physics.syr.edu/undergraduate](http://physics.syr.edu/undergraduate).

#### OPTION IN BIOLOGICAL AND MEDICAL PHYSICS

Sophisticated biophysical technologies are increasingly employed in medicine and other health professions; examples include ultrasound, computed tomography, magnetic resonance imaging, fiberoptic endoscopy, and laser surgery. Moreover, the rapidly advancing knowledge in the biomedical fields depends on biophysical concepts and methods, notably electrophysiology, pharmacological kinetics, and biomolecular structure determination. Accordingly, there is need for health care professionals and life scientists with ample training in the physical as well as biological sciences.

The following interdisciplinary option under the B.S. in physics is designed for students who are adept at the mathematical problem solving and conceptual aspects of physics, and who are interested in careers in biology, biological physics, medical physics, or medicine. Students with demonstrated proficiency in both physical and biological sciences will have special advantages not only for admission to and performance in graduate and professional schools, but also for their subsequent careers. More specifically, such training would be particularly relevant for the following fields of medicine: cardiology, neurology, ophthalmology, and radiology.

The following course sequence and variations meet the general prerequisites for medical school admission established by the Association of American Medical Colleges and also apply for careers in most of the other health professions. Credits are shown in square brackets. Courses followed by an asterisk are specifically required for admission to most medical schools.

#### First Year

- General Physics I (PHY 211[3])\*
- Physics Laboratory (PHY 221[1])\*
- General Physics II (PHY 212[3])\*
- Physics Laboratory II (PHY 222[1])\*
- General Chemistry I (CHE 106[3])\*
- General Chemistry I - Lab (CHE 107[1])\*
- General Chemistry II (CHE 116[3])\*
- General Chemistry II - Lab (CHE 117[1])\*
- Calculus I (MAT 295[4])\*
- Calculus II (MAT 296[4])\*

#### Second Year

- General Biology w/Lab (BIO 121[4])\*
- General Biology w/Lab (BIO 123[3] / BIO 124[1])\*
- Organic Chemistry (CHE 275[3])\*
- Organic Chemistry - Lab (CHE 276[2])\*
- Organic Chemistry (CHE 325 [3])\*
- Organic Chemistry - Lab (CHE 326 [2])\*
- Calculus III (MAT 397[4])

#### Third Year

- Vibrations, Waves & Optics (PHY 360[3])
- Modern Physics (PHY 361[3])
- Experimental Physics I (PHY 344[4])
- Biological and Medical Physics (PHY 315[3])
- Genetics and Cell Biology I or II (BIO 326 or BIO 327[3])
- Structural and Physical Biochemistry (CHE 474[3])

#### Fourth Year

- Electromagnetics I (PHY 424/ELE 324[3])
- Thermodynamics and Statistical Mechanics (PHY 531[3])
- Differential Equations and Matrix Algebra (MAT 485[3])

## Electives

Seven or more credits should be selected from the following courses:

- BIO 475[2] Biochemistry Lab
- BIO 575[3] Biochemistry I
- ELE 524[3] Applied Optics (w/lab)
- MAT 517[3] PDEs and Fourier Series
- PHY 444[3] Soft Matter
- PHY 462[4] Experimental Physics II
- PHY 425[3] Electromagnetics II
- PHY 523[3] Advanced Mechanics
- PHY 567[4] Quantum Mechanics
- PHY 576[3] Solid-State Physics

Note: Honors Program students should register for research in a biophysics laboratory, under the auspices of BIO 460[3], CHE 450[3], or PHY490[3]. For students intending to apply to M.D./ Ph.D. programs, such experience in a biophysics research laboratory is strongly recommended.

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## Physics Minor

Director of Undergraduate Studies  
201 Physics Building  
315-443-3901

To complete a minor in physics, students take 20 credits in physics, PHY 211 (or PHY 215), PHY 212 (or PHY 216), PHY 221, PHY 222 are required; an additional 12 credits of coursework numbered 300 or above is required.

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## Physics Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Physics and Secondary Science Education (Physics) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Physics (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Policy Studies Major

### Policy Studies

Contact: William D. Coplin  
Director, Public Affairs Program  
102 Maxwell Hall  
315-443-2348  
Email: wdcoplin@syr.edu

Faculty Kristi J. Andersen, Douglas V. Armstrong, John S. Burdick, A.H. Peter Castro, William D. Coplin, Marjorie L. DeVault, Donald H. Dutkowsky, Jerry Evensky, Kathleen A. Hinchman, Eric Kingson, W. Henry Lambright, Elisabeth D. Lasch-Quinn, Mary E. Lovely, Allan C. Mazur, Robert D. McClure, Don Mitchell, Mark Monmonier, Nancy R. Mudrick, Arthur Paris, William S. Pooler, Sarah B. Pralle, Grant D. Reeher, J. David Richardson, Robert A. Rubinstein, Mark Rupert, Michael Wasylenko, John C. Western, John M. Yinger

The major introduces students to historical, social, economic, and political factors shaping contemporary public policy issues. Students develop an expertise in a public policy area of their choice that provides a broad range of scholarly perspectives.

Students also acquire practical skills by studying policy issues through coursework in the Public Affairs Program, other departments in the Maxwell School and in the College of Arts and Sciences, Sport and Human Dynamics, Management, and Newhouse. Students develop skills in social science research, computer applications, data collection and analysis, written and oral communications, interpersonal relations, planning, management, and problem solving. These skills are needed to obtain desirable entry-level positions in business, government, and the non-profit sector. They also serve as excellent preparation for admission to leading law schools and public, business, and health administration, as well as other graduate programs. The skills are also essential for participating effectively as a citizen in today's world.

Several of the required major courses involve internships and policy-related field work. An integral part of the policy studies major is the completion of a research project for a government agency or community organization. This study is frequently used by graduates to display their talents to prospective employers and graduate schools. A practicum is also required in which students complete an internship or work as a research consultant on an applied project. Students complete no less than 6 and as many as 15 credits in community-based coursework.

Students take 60 percent of their coursework in a core that develops basic skills and covers essential concepts. The other 40 percent of coursework is taken in one of four topical specializations: (1) Society and the Legal System; (2) Environment; (3) Business and Government; and (4) Health, Education, and Human Services. A major in Policy Studies leads to a B.A. degree in the College of Arts and Sciences.

Before admission to the major, students must have a "B" or better in PAF 101 (Introduction to Analysis of Public Policy) and have completed or passing by mid-semester MAX 201 (Quantitative Methods) or a suitable alternative approved by Professor Coplin. Students must complete at least 35 hours of public service by taking PAF 110 or a suitable alternative approved by Professor Coplin. An interview with Professor William D. Coplin, Director of the Public Affairs Program, is necessary before formally admitted as majors.

### MAJOR REQUIREMENTS

Students are required to take an 18-credit core and a 12-credit topical specialization. At least six courses must be numbered 300 or above.

#### Core

The core introduces research skills necessary to analyze public policy issues. The following are required:

- PAF 101 An Introduction to the Analysis of Public Policy
- MAX 201 Quantitative Methods
- PAF 315 Methods of Public Policy Analysis and Presentation
- PAF 410 Practicum in Public Policy
- ECN 203 Economic Ideas and Issues
- MAX 123 Critical Issues for the United States

#### Topical Specializations

Students complete 12 credits in one of the four Topical Specializations: (1) Environment; (2) Government and Business; (3) Health, Education, and Human Services; (4) Society and the Legal System. No more than 9 credits may be taken from any department other than Public Affairs. A course selection guide that lists course options in each area is available in the Public Affairs Program office every semester prior to registration. The courses chosen are to be approved by the policy studies advisor.

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## Policy Studies Minor

## POLICY STUDIES

Contact: Michelle Walker  
Director, Community Programs, Public Affairs Program  
102 Maxwell Hall  
315-443-4683  
Email: mawalker@syr.edu

The minor in policy studies requires 18 credits, of which at least 12 credits include courses numbered 300 or above.

### Required Courses

- PAF 101 An Introduction to the Analysis of Public Policy
- ECN 203 Economic Ideas and Issues
- PAF 410 Practicum in Public Policy

The remaining 9 credits are taken from courses numbered 300 or above within one specialization.

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## Policy Studies Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Policy Studies and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 138 Huntington Hall mrsarno@syr.edu

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Political Philosophy Major

Contact: John Robertson  
Philosophy  
530 Hall of Languages  
315-443-5826  
or  
Elizabeth Cohen  
Political Science

Faculty See faculty listings under the programs in philosophy and in political science.

Political philosophy is reflective thought on group activity. It differs from political science in that it is a conceptual inquiry, while political science is a more empirical and practical application of that inquiry. The program enables students to pursue studies using the resources of both the philosophy department and the political science department. Students take coursework in ethics, political theory, history of political thought, law, and human nature. Some other topics of study include governmental structures and their ideal implementation, political behavior, civil liberties, the relationship between individuals and governments, and philosophy of law.

#### MAJOR REQUIREMENTS

The program requires a total of 30 credits.

Of these, 12 credits are selected from the following courses:

- PHI 107 Theories of Knowledge and Reality
- PHI 317/PSC 373 Political Philosophy: The Social Contract Tradition and its Critics
- PHI 417/PSC 382 Contemporary Political Philosophy
- PSC 125 Political Theory
- PHI 107 may also apply toward satisfaction of the humanities divisional requirements in the Liberal Arts Core.

In addition, students choose two of the following four areas, and take nine credits in each: (1) history of political thought; (2) law; (3) ethics and politics; and (4) human nature and political theory. Each course selection needs the approval of a political philosophy advisor. The courses listed below satisfy these area requirements. However, additional courses in philosophy or political science, such as selected topics courses, may be approved, as may certain courses in other departments such as history or sociology, as well as appropriate courses given outside of the arts and sciences. Each political philosophy student consults with the advisor about course selections each semester. The illustrative examples are:

(1) History of political thought:

- PSC 326/HST 383 Foundations of American Political Thought
- PSC 327/HST 342 Modern American Political Thought
- PSC 371 Democratic Theory and Politics
- PSC 372 Marxist Theory
- PHI 418/618 Hegel, Marx, and Nietzsche

(2) Law:

- ECN 575/LAW 733 Law and Market Economy
- PSC 324 Constitutional Law I
- PSC 325 Constitutional Law II
- PSC 352 International Law
- PSC 374 Law and Society
- PSC 375/PHI 397 Philosophy of Law

(3) Ethics and politics:

- PHI 393 Contemporary Ethics
- PHI 493 Contemporary Ethical Issues
- PSC/WGS 356 Political Conflict
- PSC 376 Revolution and Civil Violence
- ANT 483/683 Social Movement Theory
- PHI 343 Philosophy of Education
- PHI/PSC 379 American Slavery and the Holocaust
- PHI 422/622 20th-Century French and German Philosophy

(4) Human nature and political theory:

- ANT 415 Culture and Personality
- PHI 197 Human Nature
- PHI 391 History of Ethics
- PSC/WGS 319 Gender and Politics
- PSC 337 Political Psychology
- PHI 377 Philosophy of Psychology
- SOC 335/635 Political Sociology
- SOS/PHI 575 Philosophy of Social Science
- WGS 301 Feminist Theory

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## Political Science Major

Political Science  
100 Eggers Hall  
315-443-2416

Faculty Kristi J. Andersen, Michael Barkun, Hossein Bashiriyeh, Kenneth Baynes, James P. Bennett, G. Matthew Bonham, Mehrzad Boroujerdi, Keith J. Bybee, Horace Campbell, Matthew R. Cleary, Elizabeth F. Cohen, Francine D'Amico, Bruce W. Dayton, Renée de Nevers, David Kwame Dixon, Gavan Duffy, Colin Elman, Miriam Fendius Elman, Margarita Estévez-Abe, Christopher G. Faricy, Shana Gadarian, Dimitar D. Gueorguiev, Jonathan K. Hanson, Margaret Hermann, Seth Jolly, Thomas M. Keck, Ralph Ketcham, Audie Klotz, W. Henry Lambright, Robert D. McClure, Daniel McDowell, Glyn Morgan, Quinn Mulroy, Spencer Piston, Sarah B. Pralle, Grant D. Reeher, Mark Rupert, Anoop Sadanandan, S.N. Sangmpam, Hans Peter Schmitz, Yüksel Sezgin, Abbey Steele, Jeffrey M. Stonecash, Brian D. Taylor, Laurence Thomas, Margaret Susan Thompson, Stuart J. Thorson

Political science is the study of politics, government, and their relationship with other aspects of society. Courses in political science enable students to use political theory and empirical analyses to make sense of their world, to interpret political phenomena in the United States and in other areas of the world, and to understand world politics. Skills in research, analysis, and critical thinking that political science students acquire help to prepare them for careers in politics and government, journalism and communication, and business, as well as post-graduate study.

Note: Students are required to fulfill the requirements for the B.A. or minor in political science as stipulated in the course catalog for the academic year in which they declare their political science major or minor. Graduation with a B.A. or a minor in political science requires a 2.0 average in the upper-division coursework applied toward the major or minor.

### MAJOR REQUIREMENTS

To declare a political science major, students must complete one PSC course with a grade no lower than a C-. The B.A. in political science requires 30 credits, including PSC 121, one additional course at the 100 level, and PSC 202. Of the remaining 21 credits, 18 are taken in courses numbered 300 or above. An additional 3 credits may be taken at the 100 level as part of the remaining 21 credits, but no more than a total of 9 credits may be taken at the 100 level. PSC courses with a grade of D may not be applied toward the major requirements. The upper-division courses regularly offered by the department are included in the list below. PSC majors must take at least one course from the approved list of courses with international content (approved courses are designated with an asterisk [\*], see list below). Political science majors must take at least 9 credits of coursework included in one cluster of related upper-division courses. (Clusters are listed below.) Experience credit courses may not be used to satisfy major requirements. Political science majors seeking a degree with honors must satisfy the requirements of the Honors Program in addition to the requirements for the major in political science.

### Political Science Courses and Clusters

The courses regularly offered by the department for application toward a major are listed below. Special topics courses (PSC 300, PSC 411) and courses which may be taken multiple times (PSC 350) may be included in a cluster with the approval of the undergraduate advisor. Courses taken abroad may also count with the approval of the undergraduate advisor. Finally, students may petition to construct their own cluster; this petition will be considered by the department's Undergraduate Studies Committee.

- PSC 121 American National Government and Politics
- PSC 122 American State and Local Government and Politics
- PSC 123\* Comparative Government and Politics
- PSC 124\* International Relations
- PSC 125 Political Theory
- PSC 129 American National Government and Politics (Honors)
- PSC 139\* International Relations (Honors)
- PSC 202 Introduction to Political Analysis
- PSC 317 Local Internship
- PSC 495 Distinction Thesis in Political Science I
- PSC 496 Distinction Thesis in Political Science II

### Law and Politics

- PSC 304 The Judicial Process
- PSC 316 The Supreme Court in American Politics
- PSC 324 Constitutional Law I
- PSC 325 Constitutional Law II
- PSC 352\* International Law
- PSC 374 Law and Society
- PSC 375/PHI 397 Philosophy of Law
- PSC/QSX 384 Sexuality and the Law

## Public Policy

- PSC 302 Environmental Politics and Policy
- PSC 303 Development of the American State
- PSC 305 U.S. Congressional Politics
- PSC 308 The Politics of U.S. Public Policy
- PSC 309 Interest Group Politics
- PSC 312 Urban Government and Politics
- PSC 315 Politics and Media
- PSC 318 Technology, Politics, and Environment
- PSC 323 Politics of the Executive Branch
- PSC 357\* U.S. Foreign Policy
- PSC 359\* Foreign Policymaking
- PSC 361\* Politics in the Cyber-Age
- PSC 369\* Global Migration
- PSC/PAF 418\* Comparative Public Policy in Practice (London)
- PSC 427\* Policy Seminar / Contemporary Europe (Strasbourg)
- PSC 462/ECN 362\* Globalization, Development and Environment (London)

## Political Economy

- PSC/LAS 333\* Politics of Latin America
- PSC 334/LAS 335\* Mexico and the United States
- PSC 335\* Politics of East Asia
- PSC 351\* Political Economy of Development
- PSC 355\* International Political Economy
- PSC/AAS 365\* International Political Economy of the Third World
- PSC/MES 367\* Oil, Water, and War
- PSC 369\* Global Migration
- PSC 388\* Politics of Globalization
- PSC/GEO 396\* European Integration
- PSC 425\* Hong Kong in the World Political Economy (Hong Kong)
- PSC/IRP/GEO/INB 443\* South East Asia in World Political Economy (Hong Kong)
- HST/PSC/IRP/INB 444\* Culture, Business and Political Economics in East Asia (Hong Kong)

## American Politics

- PSC 302 Environmental Politics and Policy
- PSC 303 The Development of the American State
- PSC 304 The Judicial Process
- PSC 305 U.S. Congressional Politics
- PSC/AAS 306 African American Politics
- PSC 308 The Politics of U.S. Public Policy
- PSC 309 Interest Group Politics
- PSC 311 American Political Parties
- PSC 313 Campaign Analysis
- PSC 314 Public Opinion and Electoral Behavior
- PSC 315 Politics and Media
- PSC 316 The Supreme Court in American Politics
- PSC 321 Populism and Conspiracy Culture
- PSC 323 Politics of the Executive Branch
- PSC 324 Constitutional Law I
- PSC 325 Constitutional Law II
- PSC 326/HST 383 Foundations of American Political Thought
- PSC 327/HST 342 Modern American Political Thought
- PSC 328/WGS 318 American Social Movements
- PSC 329/HST 341 The Modern American Presidency
- PSC 357\* U.S. Foreign Policy
- PSC/PHI/JSP 379 American Slavery and the Holocaust
- PSC 398 How the U.S. Became a Great Power

## Comparative Politics

- PSC 331\* Canadian Politics
- PSC/LAS 333\* Politics of Latin America
- PSC 334/LAS 335\* Mexico and the United States
- PSC 335\* Politics of East Asia

- PSC 338\* Comparative Political Parties
- PSC 339\* Transitions to Democracy
- PSC/AAS 341\* Politics of Africa
- PSC/MES/REL/JSP 342\* Religion and Politics in the Israeli-Palestinian Conflict
- PSC 343\* Politics of Europe
- PSC/MES 344\* Politics of the Middle East
- PSC/MES 345\* Islam and Politics in Asia
- PSC/AAS 346\* Comparative Third World Politics
- PSC 347\* Politics of Russia
- PSC 348\* Politics and the Military
- PSC/MES 349\* Politics of Iran
- PSC 351\* Political Economy of Development
- PSC/SOC 362/REL 355\* Religion, Identity and Power (London, Madrid)
- PSC/AAS 364\* African International Relations
- PSC/AAS 365\* International Political Economy of the Third World
- PSC/MES 366\* Representations of the Middle East
- PSC/MES/HST 368\* Islam and the West (London)
- PSC 387\* Ethnic Conflict
- PSC 388\* Politics of Globalization
- PSC/SAS 389\* Politics of India
- PSC/MES 391\* Revolutions in the Middle East
- PSC/MES 392\* Sociology of Islamic Fundamentalism
- PSC/MES 393\* Middle Eastern Political Systems
- PSC/MES 394\* History of Islamic Political Thought
- PSC/MES 395\* Democratization in the Muslim World
- PSC/GEO 396\* European Integration
- PSC 401\* Government and Politics in Great Britain (London)
- PSC 402\* Government and Politics in Italy (Florence)
- PSC 403\* Government and Politics in France (Strasbourg)
- PSC 404\* Government and Politics in Spain (Madrid)
- PSC 405\* Politics of the European Union (offered regularly through SU Abroad)
- PSC/SOS 407\* Political Integration and Disintegration in Western Europe (Florence)
- PSC 409\* The European Union (London)
- PSC 414\* European Identity Seminar (Strasbourg)
- PSC 421/HST 411\* Contemporary Central and Eastern Europe (Strasbourg)
- PSC 422/HST 412\* Understanding 20th Century Spain (Madrid)
- PSC/HST/IRP/LAS 424\* Dictatorships, Human Rights, and Historical Memory in the Southern Cone (Santiago)
- PSC 425\* Hong Kong in the World Political Economy (Hong Kong)
- PSC 427\* Policy Seminar / Contemporary Europe (Strasbourg)
- PSC 428/IRP/LAS/SPA 334/HST 406\* Contemporary Issues in Chile and Latin America (Santiago)
- PSC 429\* European Human Rights (Strasbourg)
- PSC 431/PAI 515\* China in Transition (Beijing)
- PSC 432/SOC 312\* The Pale and Beyond (Dublin and Belfast)
- PSC 442\* Democratization in East Asia (Hong Kong)
- PSC/IRP/GEO/INB 443\* South East Asia in World Political Economy (Hong Kong)
- HST/PSC/IRP/INB 444\* Culture, Business and Political Economics in East Asia (Hong Kong)
- PSC 445\* Contemporary British Politics and the Modern World (London)
- PSC/HST 452\* Italy: Past, Present and Future Challenges (Florence)
- PSC/HST 453\* Twentieth-Century Europe (Florence)
- PSC 456/REL 356\* Religion and Conflicts in Contemporary Europe (Strasbourg)
- PSC/IRP/SOC 458\* Contemporary Issues in Turkey (Istanbul)
- PSC 473\* London Seminar

#### Democracy and Political Mobilization

- PSC 302 Environmental Politics and Policy
- PSC 307 The Politics of Citizenship
- PSC 308 The Politics of U.S. Public Policy
- PSC 309 Interest Group Politics
- PSC 311 American Political Parties
- PSC 314 Public Opinion and Electoral Behavior
- PSC/WGS 319 Gender and Politics
- PSC 321 Populism and Conspiracy Culture
- PSC 326/HST 383 Foundations of American Political Thought
- PSC 327/HST 342 Modern American Political Thought
- PSC 328/WGS 318 American Social Movements

- PSC 337\* Political Psychology
- PSC 338\* Comparative Political Parties
- PSC 339\* Transitions to Democracy
- PSC/MES/REL/JSP 342\* Religion and Politics in the Israeli-Palestinian Conflict
- PSC 356\* Political Conflict
- PSC/SOC 362/REL 355\* Religion, Identity and Power (London, Madrid)
- PSC 371 Democratic Theory and Politics
- PSC 378 Power and Identity
- PSC 383 Civil Society and Democracy
- PSC 386/WGS/SOC 354\* Gender, Militarism and War
- PSC/MES 391\* Revolutions in the Middle East
- PSC/MES 395\* Democratization in the Muslim World
- PSC/SOS 408\* Comparative Social Movements (Florence)
- PSC/PHI/WGS 413 Identity and Difference (Florence)
- PSC 414\* European Identity Seminar (Strasbourg)
- PSC 442\* Democratization in East Asia (Hong Kong)

#### Global Governance and Foreign Policy

- PSC 322\* International Security
- PSC 334/LAS 335\* Mexico and the United States
- PSC 350\* Problems in International Relations
- PSC 352\* International Law
- PSC 353\* International Organization
- PSC 354\* Human Rights and Global Affairs
- PSC 355\* International Political Economy
- PSC 357\* U.S. Foreign Policy
- PSC/LAS 358\* Latin American International Relations
- PSC 359\* Foreign Policymaking
- PSC/PHI 363\* Ethics and International Relations
- PSC 388\* Politics of Globalization
- PSC/GEO 396\* European Integration
- PSC 397\* Realism and Power Politics in International Relations
- PSC 398\* How the United States Became a Great Power
- PSC 405\* Politics of the European Union (offered regularly through SU Abroad)
- PSC/SOS 407\* Political Integration and Disintegration in Western Europe (Florence)
- PSC/IRP 412\* Global Governance: The United Nations System
- PSC 414\* European Identity Seminar (Strasbourg)
- PSC 429\* European Human Rights (Strasbourg)
- PSC/HST 441\* Europe and International Security Issues (Strasbourg)
- PSC/IRP/SOC 458\* Contemporary Issues in Turkey (Istanbul)
- PSC 462/ECN 362\* Globalization, Development and Environment (London)

#### Political Theory

- PSC 307 The Politics of Citizenship
- PSC 326/HST 383 Foundations of American Political Thought
- PSC 327/HST 342 Modern American Political Thought
- PSC/PHI 363\* Ethics and International Relations
- PSC/MES 366\* Representations of the Middle East
- PSC 371 Democratic Theory and Politics
- PSC 372 Marxist Theory
- PSC 373/PHI 317 Political Philosophy: The Social Contract Tradition and Its Critics
- PSC 378 Power and Identity
- PSC 381 Political Fiction and Film
- PSC 382/PHI 417 Contemporary Political Philosophy
- PSC 383 Civil Society and Democracy
- PSC 385 Rationality and Politics
- PSC/MES 394\* History of Islamic Political Thought
- PSC 399/PHI 319/REL 371 God in Political Theory
- PSC/PHI 406\* Citizenship from Modernity to Globalization (Florence)

#### International War and Peace

- PSC 322\* International Security
- PSC/MES/REL/JSP 342\* Religion and Politics in the Israeli-Palestinian Conflict
- PSC 348\* Politics and the Military

- PSC 352\* International Law
- PSC 354\* Human Rights and Global Affairs
- PSC 356\* Political Conflict
- PSC 359\* Foreign Policymaking
- PSC/PHI 363\* Ethics and International Relations
- PSC/MES 367\* Oil, Water and War
- PSC 376\* Revolution and Civil Violence
- PSC 377 Religion and Politics
- PSC/PHI/JSP 379\* American Slavery and the Holocaust
- PSC 386/WGS/SOC 354\* Gender, Militarism and War
- PSC 387\* Ethic Conflict
- PSC/MES 391\* Revolutions in the Middle East
- PSC/MES 392\* Sociology of Islamic Fundamentalism
- PSC 397\* Realism and Power Politics in International Relations
- PSC/IRP 412\* Global Governance: The United Nations System
- PSC 429\* European Human Rights (Strasbourg)
- PSC/HST 441\* Europe and International Security Issues (Strasbourg)
- PSC 456/REL 356\* Religion and Conflicts in Contemporary Europe (Strasbourg)

#### DISTINCTION IN POLITICAL SCIENCE

Minimum Department GPA 3.5

Minimum Cumulative GPA 3.5

Award of Distinction in Political Science requires successful completion of 6 credits of distinction thesis preparatory coursework (PSC 495 and PSC 496) and successful defense of written thesis.

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## Political Science Minor

Political Science  
100 Eggers Hall  
315-443-2416

Political science is the study of politics, government, and their relationship with other aspects of society. Courses in political science enable students to use political theory and empirical analyses to make sense of their world, to interpret political phenomena in the United States and in other areas of the world, and to understand world politics. Skills in research, analysis, and critical thinking that political science students acquire help to prepare them for careers in politics and government, journalism and communication, and business, as well as post-graduate study.

Note: Students are required to fulfill the requirements for the B.A. or minor in political science as stipulated in the course catalog for the academic year in which they declare their political science major or minor. Graduation with a B.A. or a minor in political science requires a 2.0 average in the upper-division coursework applied toward the major or minor.

#### MINOR REQUIREMENTS

The minor in political science requires 18 credits of coursework. Students are required to take one of the following courses at the 100 level: PSC 121 or PSC 129, PSC 122, PSC 123, PSC 124 or PSC 139, or PSC 125. Of the remaining 15 credits, 12 are taken in courses numbered 300 or above. The remaining 3 credits may be taken at either the 100 level or in a course numbered 300 or above. PSC minors must take at least one course from the approved list of courses with international content (approved courses are designated with an asterisk [\*], see list below).

#### COURSES

The courses regularly offered by the department for application toward the minor are listed below. Courses taken abroad may also count with the approval of the undergraduate advisor.

- PSC 121 American National Government and Politics (required for PSC majors)
- PSC 122 American State and Local Government and Politics
- PSC 123\* Comparative Government and Politics
- PSC 124\* International Relations
- PSC 125 Political Theory
- PSC 129 American National Government and Politics (Honors)
- PSC 139\* International Relations (Honors)
- PSC 202 Introduction to Political Analysis (required for PSC major)
- PSC 300 Selected Topics

- PSC 302 Environmental Politics and Policy
- PSC 303 The Development of the American State
- PSC 304 The Judicial Process
- PSC 305 U.S. Congressional Politics
- PSC/AAS 306 African American Politics
- PSC 307 The Politics of Citizenship
- PSC 308 The Politics of U.S. Public Policy
- PSC 309 Interest Group Politics
- PSC 311 American Political Parties
- PSC 312 Urban Government and Politics
- PSC 313 Campaign Analysis
- PSC 314 Public Opinion and Electoral Behavior
- PSC 315 Politics and Media
- PSC 316 The Supreme Court in American Politics
- PSC 317 Local Internship
- PSC 318 Technology, Politics, and Environment
- PSC/WGS 319 Gender and Politics
- PSC 321 Populism and Conspiracy Culture
- PSC 322\* International Security
- PSC 323 Politics of the Executive Branch
- PSC 324 Constitutional Law I
- PSC 325 Constitutional Law II
- PSC 326/HST 383 Foundations of American Political Thought
- PSC 327/HST 342 Modern American Political Thought
- PSC 328/WGS 318 American Social Movements
- PSC 329/HST 341 The Modern American Presidency
- PSC 331\* Canadian Politics
- PSC/LAS 333\* Politics of Latin America
- PSC 334/LAS 335\* Mexico and the United States
- PSC 335\* Politics of East Asia
- PSC 336\* Political Leadership
- PSC 337\* Political Psychology
- PSC 338\* Comparative Political Parties
- PSC 339\* Transitions to Democracy
- PSC/AAS 341\* Politics of Africa
- PSC/MES/REL/JSP 342\* Religion and Politics in the Israeli-Palestinian Conflict
- PSC 343\* Politics of Europe
- PSC/MES 344\* Politics of the Middle East
- PSC/MES 345\* Islam and Politics in Asia
- PSC/AAS 346\* Comparative Third World Politics
- PSC 347\* Politics of Russia
- PSC 348\* Politics and the Military
- PSC/MES 349\* Politics of Iran
- PSC 350\* Problems in International Relations
- PSC 351\* Political Economy of Development
- PSC 352\* International Law
- PSC 353\* International Organization
- PSC 354\* Human Rights and Global Affairs
- PSC 355\* International Political Economy
- PSC 356\* Political Conflict
- PSC 357\* U.S. Foreign Policy
- PSC/LAS 358\* Latin American International Relations
- PSC 359\* Foreign Policymaking
- PSC 361\* Politics in the Cyber-Age
- PSC/SOC 362/REL 355\* Religion, Identity and Power (London and Madrid)
- PSC/PHI 363\* Ethics and International Relations
- PSC/AAS 364\* African International Relations
- PSC/AAS 365\* International Political Economy of the Third World
- PSC/MES 366\* Representations of the Middle East
- PSC/MES 367\* Oil, Water and War
- PSC/MES/HST 368\* Islam and the West (London)
- PSC 369\* Global Migration
- PSC 371 Democratic Theory and Politics
- PSC 372 Marxist Theory
- PSC 373/PHI 317 Political Philosophy: The Social Contract Tradition and Its Critics

- PSC 374 Law and Society
- PSC 375/PHI 397 Philosophy of Law
- PSC 376\* Revolution and Civil Violence
- PSC 377 Religion and Politics
- PSC 378 Power and Identity
- PSC/PHI/JSP 379\* American Slavery and the Holocaust
- PSC 381 Political Fiction and Film
- PSC 382/PHI 417 Contemporary Political Philosophy
- PSC 383 Civil Society and Democracy
- PSC/QSX 384 Sexuality and the Law
- PSC 385 Rationality and Politics
- PSC 386/WGS/SOC 354 Gender, Militarism, and War
- PSC 387 Ethnic Conflict
- PSC 388\* Politics of Globalization
- PSC/SAS 389\* Politics of India
- PSC/MES 391\* Revolutions in the Middle East
- PSC/MES 392\* Sociology of Islamic Fundamentalism
- PSC/MES 393\* Middle Eastern Political Systems
- PSC/MES 394\* History of Islamic Political Thought
- PSC/MES 395\* Democratization in the Muslim World
- PSC/GEO 396\* European Integration
- PSC 397\* Realism and Power Politics in International Relations
- PSC 398\* How the United States Became a Great Power
- PSC 399/PHI 319/REL 371 God in Political Theory
- PSC 400 Selected Topics
- PSC 401\* Government and Politics in Great Britain (London)
- PSC 402\* Government and Politics in Italy (Florence)
- PSC 403\* Government and Politics in France (Strasbourg)
- PSC 404\* Government and Politics in Spain (Madrid)
- PSC 405\* Politics of the European Union (offered regularly through SU Abroad)
- PSC/PHI 406\* Citizenship from Modernity to Globalization (Florence)
- PSC/SOS 407\* Political Integration and Disintegration in Western Europe (Florence)
- PSC/SOS 408\* Comparative Social Movements (Florence)
- PSC 409\* The European Union (London)
- PSC 411 Senior Seminars
- PSC/IRP 412\* Global Governance: The United Nations System
- PSC/PHI/WGS 413 Identity and Difference (Florence)
- PSC 414\* European Identity Seminar (Strasbourg)
- PSC/PAF 418\* Comparative Public Policy in Practice (London)
- PSC 421/HST 411\* Contemporary Central and Eastern Europe (Strasbourg)
- PSC 422/HST 412\* Understanding 20th Century Spain (Madrid)
- PSC/HST/IRP/LAS 424/PAI 624\* Dictatorships, Human Rights, and Historical Memory in the Southern Cone (Santiago)
- PSC 425\* Hong Kong in the World Political Economy (Hong Kong)
- PSC 427\* Policy Seminar / Contemporary Europe (Strasbourg)
- PSC 428/IRP/LAS/SPA 334./HST 406\* Contemporary Issues in Chile and Latin America (Santiago)
- PSC 429\* European Human Rights (Strasbourg)
- PSC 431/PAI 515\* China in Transition (Beijing)
- PSC 432/SOC 312\* The Pale and Beyond (Dublin and Belfast)
- PSC/HST 441\* Europe and International Security Issues (Strasbourg)
- PSC 442\* Democratization in East Asia (Hong Kong)
- PSC/IRP/GEO/INB 443\* South East Asia in the World Political Economy (Hong Kong)
- PSC/HST/IRP/INB 444\* Culture, Business and Political Economics in East Asia (Hong Kong)
- PSC/HST 445\* Contemporary British Politics and the Modern World (London)
- PSC 450 Undergraduate Research Program
- PSC/HST 452\* Italy: Past, Present and Future Challenges (Florence)
- PSC/HST 453\* Twentieth-Century Europe (Florence)
- PSC 456/REL 356\* Religion and Conflicts in Contemporary Europe (Strasbourg)
- PSC/IRP/SOC 458/PAI 658\* Contemporary Issues in Turkey (Istanbul)
- PSC 462/ECN 362\* Globalization, Development and Environment (London)
- PSC 470 Experience Credit
- PSC 473\* London Seminar
- PSC 490 Independent Study

\* Foreign or international content

# Political Science Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Political Science and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Psychology Major

Peter Vanable, Ph.D., Chair  
430 Huntington Hall  
315-443-2354

Faculty: Kevin Antshel, Benita A. Blachman, D. Bruce Carter, Catherine A. Cornwell, Amy H. Criss, Jeanne Denti, Joseph Ditre, Tanya L. Eckert, Craig K. Ewart, Les Gellis, Richard M. Gramzow, Randall S. Jorgenson, Michael Kalish, Lawrence J. Lewandowski, Stephen Maisto, Brian K. Martens, Leonard Newman, Tibor Palfai, Aesoon Park, Natalie Russo, Lael Schooler, Laura VanderDrift, Peter A. Vanable and Corey White.

Psychology is the scientific study of behavior. Professional psychologists may be researchers investigating behavior and/or practitioners, applying their knowledge and skills to individual and social problems.

The Psychology Department offers several options for students. These include a Bachelor of Arts major, a Bachelor of Science major, and a minor.

Students planning to pursue a career in which a background in psychology is useful, such as business, communications, or social services, will find the B.A. degree to be an appropriate track. These students are encouraged to pursue experiences through part-time work or internships in their area of interest. Students interested in pursuing professional careers in psychology, social work, or other professional fields such as law will need to attend graduate school and obtain an advanced degree. These students are encouraged to consult with their academic advisor for advice on whether the B.A. or B.S. degree is most appropriate to meet their long-term goals. The B.S. degree is recommended for students planning professional careers in such fields as medicine, dentistry, and physical therapy. All students should consult regularly with their faculty advisor in planning a program of study that is consistent with their future academic and career goals. All students are encouraged to utilize the career resources available in the Department of Psychology, the College of Arts and Sciences, and the University to learn about opportunities and prepare strategies to meet their goals.

### PETITIONS

Students interested in taking a psychology class at another institution and transferring it to Syracuse University to count toward either the major or minor must complete a petition form (downloadable from the department web site) and bring it and a syllabus for the course to the Advising Office (415 Huntington) for approval prior to enrolling in the course. Petitions may take up to two weeks for review. Winter intersession classes are generally not accepted as transfer credit. Students should plan their program of study in consultation with their academic advisor in order to insure timely completion of

degree requirements No more than three hours of experience credit (PSY 270/470) may be applied toward the minimum number of hours required for the major.

#### BACHELOR OF ARTS IN PSYCHOLOGY DEGREE

The B.A. requires a minimum of 30 credits in psychology (PSY) courses, 18 of which must be numbered 300 or above. Students must earn a grade point average of at least a 2.0 in all upper-division Psychology courses taken at Syracuse University and counted towards the completion of the major (see MySlice for the GPA calculator). Students must begin by taking PSY 205 Foundations of Human Behavior (or the Honors equivalent, PSY209). PSY 205 (or PSY 209) is a prerequisite for all other psychology courses except PSY252. All majors also must complete PSY 313 Introduction to Research Methodology and are encouraged to complete this course in addition to the required statistics sequence as soon as possible. Majors must satisfy a two-semester statistics sequence from the list below which also satisfies the quantitative skills requirement of the Liberal Arts Core:

<u>Math Sequence Options</u>	
Preferred Option for Math Sequence: MAT221 & PSY252	
Alternative Math Sequence #1	MAT 121 & (PSY252 or MAT122)
Alternative Math Sequence #2	MAT 221 & MAT222
Alternative Math Sequence #3	(MAT285 & MAT286) & PSY252
Alternative Math Sequence #4	(MAT295 & MAT296) & PSY252

Note: Credit from courses with a MAT prefix will not count towards the 30 credit minimum for the B.A.; only courses with a PSY prefix count.

#### PSYCHOLOGY AREA REQUIREMENTS AND ELECTIVES

One 3-credit course must be completed in each of the four areas of psychology listed below. A single course may be used to satisfy requirements in only one area. Students may petition to have psychology (i.e., PSY) courses not listed in the four areas (e.g., PSY 400) count as completing a group requirement. Please note some courses are offered infrequently (COI) which are included in the lists below:

##### Cognitive/Neuroscience

- PSY 223 Introduction to Biopsychology
- PSY 315 Drugs and Human Behavior
- PSY 321 Introduction to Sensation and Perception
- PSY 322 Cognitive Psychology
- PSY 323 Brain and Behavior
- PSY 324 Developmental Biopsychology
- PSY 373 Human Memory
- PSY 426 Cognitive Neurochemistry
- PSY 437 Cognition and Aging
- PSY 496 Neuroscience in the Arts, the Sciences and Society (COI)

##### Developmental/Educational

- PSY 335 Psychology of Childhood
- PSY 336 Psychology of the Adolescent
- PSY 337 Psychology of Adult Life: Maturity and Old Age

- PSY 353 Psychological Measurement (COI)
- PSY 365 Educational Psychology (COI)
- PSY 432 Applied Behavior Analysis with Children and Youth
- PSY 445 Behavior Disorders in Children
- PSY 447 Psychology of Childhood Reading Disorders

Social/Personality

- PSY 274 Social Psychology
- PSY 382 Health Psychology
- PSY 392 Stress and Health
- PSY 393 Personality
- PSY 474 Forensic Psychology

Clinical/Health

- PSY 315 Drugs and Human Behavior
- PSY/WGS 329 Biopsychological Perspectives of Women's Health
- PSY 353 Psychological Measurement
- PSY 382 Health Psychology
- PSY 384 Health and Behavior
- PSY 392 Stress and Health
- PSY 393 Personality
- PSY 395 Abnormal Psychology
- PSY 415 Introduction to Clinical Psychology
- PSY 431 Alcohol Use and Abuse
- PSY 432 Applied Behavior Analysis with Children and Youth
- PSY 445 Behavior Disorders in Children
- PSY 474 Forensic Psychology

Psychology Electives

The B.A. student selects additional Psychology (PSY) electives from the areas above to achieve the minimum of 30 credits.

BACHELOR OF SCIENCE IN PSYCHOLOGY DEGREE

B.S. students must earn a grade point average of at least a 2.0 in all upper-division Psychology courses taken at Syracuse University and counted towards the completion of the major (see MySlice for the GPA calculator). Students must begin by taking PSY 205 Foundations of Human Behavior (or the Honors equivalent, PSY209). PSY 205 (or PSY 209) is a prerequisite for all other psychology courses except PSY252. All majors also must complete PSY 313 Introduction to Research Methodology and are encouraged to complete this course in addition to the required statistics sequence as soon as possible. Majors must satisfy a two-semester statistics sequence from the list below which also satisfies the quantitative skills requirement of the Liberal Arts Core:

<u>Math Sequence Options</u>	
Preferred Option for Math Sequence: MAT221 & PSY252	
Alternative Math Sequence #1	MAT 121 & (PSY252 or MAT122)

Alternative Math Sequence #2	MAT 221 & MAT222
Alternative Math Sequence #3	(MAT285 & MAT286) & PSY252
Alternative Math Sequence #4	(MAT295 & MAT296) & PSY252

## PSYCHOLOGY AREA REQUIREMENTS AND ELECTIVES

One 3-credit course must be completed in each of the four areas of psychology listed below. A single course may be used to satisfy requirements in only one area. Students may petition to have psychology (i.e., PSY) courses not listed in the four areas (e.g., PSY 400) count as completing a group requirement. Please note some courses are offered infrequently (COI) which are included in the lists below:

### Cognitive/Neuroscience

- PSY 223 Introduction to Biopsychology
- PSY 315 Drugs and Human Behavior
- PSY 321 Introduction to Sensation and Perception
- PSY 322 Cognitive Psychology
- PSY 323 Brain and Behavior
- PSY 324 Developmental Biopsychology
- PSY 373 Human Memory
- PSY 426 Cognitive Neurochemistry
- PSY 437 Cognition and Aging
- PSY 496 Neuroscience in the Arts, the Sciences and Society (COI)

### Developmental/Educational

- PSY 335 Psychology of Childhood
- PSY 336 Psychology of the Adolescent
- PSY 337 Psychology of Adult Life: Maturity and Old Age
- PSY 353 Psychological Measurement (COI)
- PSY 365 Educational Psychology (COI)
- PSY 432 Applied Behavior Analysis with Children and Youth
- PSY 445 Behavior Disorders in Children
- PSY 447 Psychology of Childhood Reading Disorders

### Social/Personality

- PSY 274 Social Psychology
- PSY 382 Health Psychology
- PSY 392 Stress and Health
- PSY 393 Personality
- PSY 474 Forensic Psychology

### Clinical/Health

- PSY 315 Drugs and Human Behavior
- PSY/WGS 329 Biopsychological Perspectives of Women's Health

- PSY 353 Psychological Measurement
- PSY 382 Health Psychology
- PSY 384 Health and Behavior
- PSY 392 Stress and Health
- PSY 393 Personality
- PSY 395 Abnormal Psychology
- PSY 415 Introduction to Clinical Psychology
- PSY 431 Alcohol Use and Abuse
- PSY 432 Applied Behavior Analysis with Children and Youth
- PSY 445 Behavior Disorders in Children
- PSY 474 Forensic Psychology

#### Psychology Elective

One three-credit elective course in psychology is also required; this course can be selected from any of the area lists.

#### REQUIRED PSYCHOLOGY LECTURE-LAB SEQUENCE

B.S. students are required to complete one psychology lecture-laboratory sequence (5-6 credits). Courses selected to complete the sequence may not be used to satisfy area requirements previously listed. There are no substitutions for this requirement. The following course sequences qualify for this requirement:

- PSY 321, 331 Introduction to Sensation and Perception
- PSY 322, 332 Cognitive Psychology
- PSY 324, 334 Developmental Biopsychology
- PSY 382, 383 Health Psychology
- PSY 442, 443 Research Methods in Child Psychology
- PSY 471, 472 Experimental Social Psychology (COI)

#### REQUIRED RESEARCH IN CREDITS

B.S. students must complete 4 credits of directed research experience by securing a faculty sponsor and registering for research in credits (PSY 291, 292, 293, 294, 491, 492, 493, 494). These 4 credits are directed by the student's B.S. degree sponsor. There are no substitutions for this requirement.

#### MATHEMATICS AND NATURAL SCIENCE REQUIREMENTS

##### Required Natural Science Sequence

In addition to the two-semester statistics sequence indicated previously, B.S. students must complete a one-year lecture-laboratory sequence in the natural sciences. A sequence must be in biology (BIO 121, BIO 123 and BIO 124), chemistry (CHE 106/116 and CHE 107/117; CHE 109/119 and CHE 129/139), or physics (PHY 101 and PHY 102; PHY 211/221 and PHY 212/222; PHY 215/221 and PHY 216/222).

##### Mathematics and Natural Sciences Electives

Students must complete three elective courses (9 credits) in mathematics and/or in the natural sciences areas from the list below. These elective courses are intended to deepen or enhance the student's research experience and scholarly interests in the sciences, and should be selected in consultation with the student's B.S. sponsor.

##### ANTHROPOLOGY

- ANT 131 Introduction to Biological Anthropology
- ANT 431 Human Variation
- ANT 433 Human Skeletal Anatomy

##### ASTRONOMY

All AST courses.

##### BIOLOGY

All BIO courses.

##### CHEMISTRY

All CHE courses.

##### COMMUNICATION SCIENCES AND DISORDERS

CSD 212-CSD 315 Introduction to Communication Sciences and Disorders: Anatomy and Physiology of Speech and Hearing

CSD 212 -CSD 325 Introduction to Communication Sciences and Disorders: Fundamentals of Hearing Science

CSD 345 Fundamentals of Speech Science

CSD 409 Cognitive Neuroscience of Speech and Language

EARTH SCIENCES

EAR 101 Dynamic Earth(orEAR105 Earth Science; credit will not be given for both 101&105)

All EAR courses

GEOGRAPHY

GEO 155 -GEO 215 The Natural Environment; Global Environmental Change

GEO 155 -GEO 316 The Natural Environment; River Environments

GEO 155 -GEO 326 The Natural Environment; The Geography of Climate and Weather

GEO 482 Environmental Remote Sensing

GEO 555 Biogeography

GEO 583 Environmental Geographical Information Systems

MATHEMATICS

All MAT courses above 230.

PHYSICS

All PHY courses.

SCIENCE TEACHING

All SCI courses.

SCIENCE, TECHNOLOGY AND SOCIETY

All STS courses may be accepted by petition

OTHER SCHOOLS AND COLLEGES ( \*Apply as Non-Arts & Sciences credit)

DAVID B. FALK COLLEGE OF SPORT AND HUMAN DYNAMICS

\*NSD 225 Nutrition in Health

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## Psychology Minor

### Requirements

The minor in psychology provides those students majoring in another discipline with a breadth or depth of experience in psychology to complement their major. For the minor, a total of 18 credits in psychology (PSY) including PSY205, and 12 credits numbered 300 or above, must be completed. No more than 3 credits of experience credit (PSY 270 or 470), independent study (PSY 290 or 490), or Research in (PSY 291, 292, 293, 294, 491, 492, 493, or 494) may be counted in the minimal credit hours for the minor in psychology. Courses taken with the pass/fail/audit option may not be applied toward the minor. Psychology (PSY) courses taken outside of Syracuse University for credit towards the minor must be approved by the department. A limit of 3 hours of transfer credit in Psychology may be applied toward the minor. To declare a minor, please visit 415 Huntington Hall and speak with an available adviser.

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## Religion Major

Chair: James W. Watts

501 Hall of Languages

315-443-3861

Director of Undergraduate Studies: Gareth J. Fisher

505 Hall of Languages

315-443-3861

Faculty Ahmed E. Abdel-Meguid, Philip P. Arnold, Zachary J. Braiterman, Virginia Burrus, Gareth J. Fisher, Ken Frieden, Ann Grodzins Gold, M. Gail Hamner, Tazim R. Kassam, Vincent W. Lloyd, R. Gustav Niebuhr, William A. Robert, Marcia C. Robinson, Joanne P. Waghorne, Ernest E. Wallwork, James W. Watts

Knowledge of religion is critical in today's world. The academic study of religion at Syracuse University offers students the opportunity to explore religion in a cross-cultural and interdisciplinary context. Students who take courses in religion learn to interpret the dynamics of religious convictions, actions, and expressions.

Religious traditions and practices engage such questions as: What kind of life is most worth living? How do we understand the nature of the world? How do we relate to ourselves and to others?

Students study religious life and thought from the perspectives of arts, ethics, gender, history, literature, mythology, philosophy, political theory, psychology, scriptural studies, social sciences, and theology.

The academic study of religion is a critical undertaking and an often transforming experience introducing students to unfamiliar aspects of their own world, and to the religious realities of our global situation.

The Department of Religion has articulated three goals that shape its teaching and its expectations of what students in its courses and programs may expect to gain from this study:

1. to understand better the nature and diversity of religious expressions in the contemporary world and in history, and their power in peoples' personal and collective lives;
2. to think more deeply and critically about religious experience and its modes of expression and forms of interpretation;
3. to recognize and appreciate the difficulties and possibilities in a disciplined study of religion; and to become aware of a diversity of approaches and methods within that study.

## MAJOR REQUIREMENTS

The major requires 30 credits of appropriate work, approved in consultation with the Director of Undergraduate Studies. Because of the interdisciplinary character of religion courses, it is crucial that the following clusters (in depth and breadth/diversity) be delineated and approved in consultation with the Director of Undergraduate Studies, in keeping with the following conditions:

1. at least four courses that ensure depth by clustering around one of the following:
  1. a particular tradition (e.g., Buddhism, Judaism)
  2. a particular geographical area or historical period (e.g., America, South Asia)
  3. a particular thematic (e.g., philosophy, popular culture)
2. at least three courses that ensure breadth and/or diversity of study, as decided in consultation with the Director of Undergraduate Studies.
3. REL 391
4. of the 10 courses, 6 must be at the 300 level or above.
5. up to 6 credits may be earned in individualized work within the Department of Religion (e.g., independent study, honors thesis).
6. up to 6 credits may be earned in advisor-approved courses outside the Department of Religion.

## Introductory Courses

- REL 101 Religions of the World
- REL 102 Religion Today in a Globalizing World
- REL 103 Religion and Sports
- REL 104 Religion and Science
- REL 106 What is Belief?
- REL/JSP 107 Religion, Literature, and Film
- REL/JSP 114 The Bible
- REL 120 Introduction to the Study of Religion
- REL 121 Pilgrimage
- REL/SAS 123 Religious Auto/Biography
- REL 125 Religion and Sexuality
- REL 126 Ecstasy, Transgression, Religion
- REL/JSP/LIT 131 Great Jewish Writers
- REL/JSP 135 Judaism
- REL/NAT 142 Native American Religions
- REL 156 Christianity
- REL/SAS 165 Discovering Islam
- REL/SAS 185 Hinduism
- REL/SAS 186 Buddhism
- REL 191 Religion, Meaning, and Knowledge
- REL 205 Ancient Greek Religion

- REL 206 Greco-Roman Religion
- REL/JSP 215 Hebrew Bible
- REL 217 The New Testament
- REL/ANT 221 Morality and Community
- REL 223 Faith, Doubt, and Fanaticism
- REL 227 Gods: A Cross-Cultural Gallery
- REL/LIT/JSP 231 Judaic Literature
- REL/LIT/JSP 235 Travel Narratives and Pilgrimages
- REL 241 Religious Diversity in America
- REL 242 Religious Issues in American Life
- REL/NAT 244/ANT 273 Indigenous Religions
- REL 246 Religion and Popular Culture
- REL 252 Religious Ethics and Social Issues
- REL 255 Depth Psychology and Religious Ethics
- REL 261 Faith and Reason in Islamic Thought & Civilization
- REL 281/AAS 241 African Religions: An Introduction
- REL/SAS 283 India's Religious Worlds
- REL 291 Comparative Themes and Issues
- REL 294 Mythologies
- REL 295 Religion and Art

#### Advanced Courses

- REL 300 Selected Topics
- REL 301 Ancient Near Eastern Religions and Cultures
- REL/JSP 307 The Temple and the Dead Sea Scrolls
- REL 309 Early Christianities
- REL 310 Medieval Christianities
- REL/JSP 311 The Bible as Literature
- REL 320 Religion and Culture
- REL 324 Religion and Storytelling
- REL 326 Religion and Film
- REL/JSP 331 European and American Judaic Literature
- REL/JSP 332 Jewish Textual Tradition
- REL/LIT/JSP 333 Yiddish Literature in Translation
- REL/JSP 334 Modern Judaism
- REL/JSP/LIT 335 Israeli Literatures and Culture
- REL/JSP 337 Shoah: Responding to the Holocaust
- REL/JSP 338 American Judaism
- REL/WGS 341/HST 387 Women, Abolition, and Religion in 19th-Century America
- REL 343 American Religions and the News Media
- REL/AAS 345 African American Religious History
- REL/NAT 347 Religion and the Conquest of America
- REL/NAT 348 Religion and American Consumerism
- REL 351 Theorizing Religion, Culture, Theology
- REL 352 Sociology of Religion and Morals
- REL 353 Religion and Nature
- REL/PHI 354 Kierkegaard and Nietzsche
- REL 355/PSC/SOC 362 Religion, Identity, and Power
- REL/QSX 357 Queerly Religious
- REL 358 Critical Issues in Religious Thought
- REL/SAS/MES 364 Enchanting Words: Muslim Poets, Singers and Storytellers
- REL/SAS/MES 367 The Quest for Beauty and the Sacred in Islam
- REL 364 Islamic Literatures
- REL/SAS 367 God and Beauty in Islamic Art
- REL 371/PHI 319/PSC 399 God in Political Theory
- REL 375 Religion and Ethics in Post-Freudian Depth Psychologies
- REL/SAS/WGS 384 Goddesses, Women, and Power in Hinduism
- REL 385 Religion in Chinese Society
- REL 386 Studies in Buddhism
- REL 391 Advanced Religion Seminar
- REL 393 Extreme Religion
- REL 395 Religions and the Natural Environment
- REL 396 Mysticism
- REL 400 Selected Topics
- REL/ANT/HST/WGS 409 A History of Witchcraft

- REL/JSP 416/REL 616 The Torah/Pentateuch as Scripture
- REL/CLA/LIT 421 Classical Mythology
- REL/PHI/JSP 435 Modern Judaic Thought
- REL/JSP 439 Senior Seminar in Judaic Studies
- REL 440 Modern Religious Thought
- REL 449 Religious Dimensions of Whiteness
- REL/SAS/WGS/MES 465 Beyond the Veil: Gender Politics in Islam
- REL 470 Experience Credit
- REL/ANT 471 Religion and Society in Brazil
- REL 487/687 Global Hinduism
- REL 490 Independent Study
- REL 498 Thesis Preparation
- REL 499 Honors Thesis
- REL 500 Selected Topics in Religion
- REL 551/PHI 593 Ethics and the Health Professions
- REL 552/PHI 594 Bioethics
- REL 557 Modern Theology
- REL 595 Religion, Art, and Aesthetics

Qualified undergraduates may take 500-level courses after consulting with the Department of Religion advisor and obtaining, before registration, the instructor's written approval.

## Religion Minor

Chair: James W. Watts  
 501 Hall of Languages  
 315-443-3861

Knowledge of religion is critical in today's world. The academic study of religion at Syracuse University offers students the opportunity to explore religion in a cross-cultural and interdisciplinary context. Students who take courses in religion learn to interpret the dynamics of religious convictions, actions, and expressions.

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1. to understand better the nature and diversity of religious expressions in the contemporary world and in history, and their power in peoples' personal and collective lives;
2. to think more deeply and critically about religious experience and its modes of expression and forms of interpretation;
3. to recognize and appreciate the difficulties and possibilities in a disciplined study of religion; and to become aware of a diversity of approaches and methods within that study.

### Requirements

Students take 18 credits of appropriate and approved work in keeping with the following conditions:

1. at least 12 credits in courses numbered 300 or above;
2. all credits will be taken in courses offered by the Department of Religion.

Students interested in pursuing a minor in religion should contact the Director of Undergraduate Studies in 501 Hall of Languages, 315-443-3861.

## Religion And Society Major

R. Gustav Niebuhr  
313 Tolley Humanities Building  
315-443-5723  
rgniebuh@syr.edu.

Faculty Philip P. Arnold, Michael Barkun, Mehrzad Boroujerdi, Zachary J. Braiterman, John S. Burdick, Ann Grodzins Gold, M. Gail Hamner, Susan Henderson, Samantha Kahn Herrick, Tazim R. Kassam, Prema Kurien, Norman A. Kutcher, Micere Githae Mugo, R. Gustav Niebuhr, Marcia C. Robinson, Dennis Romano, Maureen Trudelle Schwarz, Laurence Thomas, Margaret Susan Thompson, Robert J. Thompson, Susan S. Wadley, Joanne P. Waghorne, Ernest E. Wallwork, James W. Watts

Religion and Society is an interdisciplinary program that provides the opportunity to study the pervasive role of religion in contemporary society, especially in U.S. national politics, international relations, economic development, and popular culture—and in most facets of social change broadly conceived. Course requirements aim to provide students with (1) an understanding of several major religious traditions on their own terms; (2) perspectives on the social and cultural roles played by religion in various periods and places, not the least of which is the contemporary world; and (3) comparative analyses of religion's influence on particular aspects of human cultures, such as politics, violence, and group identity. The program is open to any SU student, and may be especially useful to students interested in pursuing careers in journalism, international relations, law, government, or foreign service.

#### MAJOR REQUIREMENTS

The B.A. in religion and society is designed to encourage study of the interaction of religion with other aspects of public affairs, such as politics, diplomacy, law, and business, on the basis of a broad understanding of various religious traditions. It consists of a minimum of 30 credits (at least 18 credits in courses numbered 300 or above), of which 12 credits must be earned in courses from the Traditions list, 12 from the Religion and Society list, and 6 from either.

#### Traditions Courses (12-18 credits):

- AAS 241/REL 281 African Religions
- AAS/REL 345 African American Religious History
- ANT 273/REL 244 Indigenous Religions
- JSP/REL 135 Judaism
- REL 101 Religions of the World
- REL 142 Native American Religion
- REL 156 Christianity
- REL 165 The Islamic Tradition
- REL 185 Hinduism
- REL 186 Buddhism
- REL 205 Ancient Greek Religion
- REL 206 Greco-Roman Religion
- REL 283 India's Religious Worlds
- REL 301 Ancient Near Eastern Religions

#### Religion and Society Courses (12-18 credits):

- AAS/HST 326 Africa Since 1800
- AAS/HST 402 Slavery and Abolition
- AAS/REL 543 Religious Cultures of the American South
- ANT 373 Magic and Religion
- ANT 440 Topics in African Archaeology
- ANT/REL 471 Religion and Politics in Brazil
- ARC 435 Islamic Architecture
- HST 210 The Ancient World
- HST 212 Religion in Medieval and Reformation Europe
- HST 310,311 Medieval Europe
- HST 312 Reformation of the 16th Century
- HST 318 Islamic Civilization to 1500
- HST 319 Byzantine Empire
- HST 320 Traditional China
- HST 328 Ancient and Medieval India
- HST 354 Decline and Fall of the Roman Empire
- JSP/REL 334 Modern Judaism
- JSP/REL 337 Shoah: Responding to the Holocaust
- PHI/PSC 379 American Slavery and the Holocaust
- PSC/MES 345 Islam and Politics in Asia
- PSC 376 Revolution and Civil Violence
- PSC 377 Religion and Politics
- REL 121 Pilgrimage
- REL 241 Religious Diversity in America

- REL 246 Religion and Popular Culture
- REL 252 Religious Ethics and Social Issues
- REL 300 Religion and the News Media
- REL 324 Religion and Storytelling
- REL 326 Religion and Film
- REL 347 Religion and the Conquest of America
- REL 348 Religion and American Consumerism
- REL 352 Sociology of Religion and Morals
- REL 375 Religion and Ethics in Post-Freudian Depth Psychologies
- REL 395 Religions and the Natural Environment
- REL 449 Religious Dimensions of Whiteness
- WGS/REL 341/HST 387 Women, Abolition and Religion in 19th-Century America
- WGS/REL 384 Goddesses, Women and Power in Hinduism
- WGS/REL 465 Gender in Islam

## Religion And Society Minor

Gustav Niebuhr  
 313 Tolley Humanities Building  
 rgniebuh@syr.edu  
 315-443-5723

### Requirements

A minor in Religion and Society consists of a minimum of 18 credits (at least 12 credits in courses numbered 300 or above), of which 9 credits must be earned in courses from the Traditions list and 9 courses on the Religion and Society list.

### Traditions Courses (9 credits):

- AAS241/REL 281 African Religions
- AAS/REL 345 African American Religious History
- ANT 273/REL 244 Indigenous Religions
- JSP/REL 135 Judaism
- REL 101 Religions of the World
- REL 142 Native American Religion
- REL 156 Christianity
- REL 165 The Islamic Tradition
- REL 185 Hinduism
- REL 186 Buddhism
- REL 205 Ancient Greek Religion
- REL 206 Greco-Roman Religion
- REL 283 India's Religious Worlds
- REL 301 Ancient Near Eastern Religions

### Religion and Society Courses (9 credits):

- AAS/HST 326 Africa Since 1800
- AAS/HST 402 Slavery and Abolition
- AAS/REL 543 Religious Cultures of the American South
- ANT 373 Magic and Religion
- ANT 440 Topics in African Archaeology
- ANT/REL 471 Religion and Politics in Brazil
- HST 210 The Ancient World
- HST 212 Religion in Medieval and Reformation Europe
- HST 310,311 Medieval Europe
- HST 312 Reformation of the 16th Century
- HST 318 Islamic Civilization to 1500
- HST 319 Byzantine Empire
- HST 320 Traditional China
- HST 328 Ancient and Medieval India
- HST 354 Decline and Fall of the Roman Empire
- JSP/REL 307 Second Temple Judaism
- JSP/REL 334 Modern Judaism
- JSP/REL 337 Shoah: Responding to the Holocaust
- PHI/PSC 379 American Slavery and the Holocaust
- PSC/MES 345 Islam and Politics in Asia

- PSC 376 Revolution and Civil Violence
- PSC 377 Religion and Politics
- REL 121 Pilgrimage
- REL 241 Religious Diversity in America
- REL 246 Religion and Popular Culture
- REL 252 Religious Ethics and Social Issues
- REL 300 Religion and the News Media
- REL 324 Religion and Storytelling
- REL 326 Religion and Film
- REL 347 Religion and the Conquest of America
- REL 348 Religion and American Consumerism
- REL 352 Sociology of Religion and Morals
- REL 375 Religion and Ethics in Post-Freudian Depth Psychologies
- REL 395 Religions and the Natural Environment
- REL 449 Religious Dimensions of Whiteness
- WGS/REL 341/HST 387/AAS 400 Women, Abolition and Religion in 19th-Century America
- WGS/REL 384 Goddesses, Women and Power in Hinduism
- WGS/REL 465 Gender in Islam

## Religion And The Media Minor

Gustav Niebuhr  
 313 Tolley Humanities Building  
 rgniebuh@syr.edu  
 315-443-5723

Interdisciplinary in its offerings, the minor incorporates more than 25 courses within 10 departments and programs. The minor is open to any SU student, but it is designed specifically to guide students in journalism and related fields towards an essential understanding of religious traditions and major issues involving religion that they are likely to encounter in their careers.

The Religion and Media minor is built on the premise that religion is a vital part of life in the U.S. and many other nations. Debates about society and politics-about which the news media is expected to inform the public-often cannot be fully understood without reference to the religious ideas, organizations and movements.

### Requirements

The minor requires 18 credits of course work, at least 12 of which must be taken in courses numbered at the 300-level or above. And two required courses REL 242: Religious Issues in American Life and REL 343: Religions and the News Media.

The minor's courses are divided into two clusters. They include the listed courses, but is not restricted to them, allowing for the inclusion of other courses developed later. The minor requires students to take a course only from within the World Religions cluster; the other cluster contains electives and is intended to encourage intellectual exploration of the study of religion.

### World Religions

- AAS/REL 281 African Religions
- AAS/REL 345 African American Religious History
- ANT 273/REL 244 Indigenous Religions
- JSP/REL 135 Judaism
- REL 114 The Bible
- REL 142 Native American Religion
- REL 156 Christianity
- REL 165 Islam
- REL 185 Hinduism
- REL 186 Buddhism

### Issues in Religion

- HST 318 Islamic Civilization to 1500
- HST 320 Traditional China
- HST 325 Africa to 1800
- HST 332 African American History through the 19th century
- HST 328 Ancient and Medieval India
- JSP 231 Judaic Literature
- JSP/REL 334 Modern Judaic Thought

- JSP 335 Israeli Literature and Culture
  - JSP/REL 392 History of the Holocaust
  - PSC/MES 345 Islam and Politics in Asia
  - PSC 377 Religion and Politics
  - PHI 325 Existentialism
  - REL 103 Religion and Sports
  - REL 107 Religion, Literature and Film
  - REL/SAS 283 India's Religious Worlds
  - REL/WSP/SAS 384 Goddesses, Women and Power in Hinduism
  - REL 396 Mysticism
  - WGS/REL/SAS 465 Gender in Islam
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## Russian Minor

Gerald R. Greenberg  
441 Hall of Languages  
315-443-1414

Faculty Gerald R. Greenberg, Erika Haber, Zofia Sztachmiller

To complete a minor in Russian, students take 18 credits in RUS courses, 6 of which may be in lower-division courses.

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## Russian And Central European Studies Minor

Gerry Greenberg  
441 Hall of Languages  
315-443-1414

Faculty Patricia Burak, Gerald R. Greenberg, Erika Haber, Paul M. Hagenloh, Laurie Marhoefer, Karl Solibakke, Zofia Sztachmiller, Brian D. Taylor, Karina von Tippelskirch

The Russian and Central European Studies minor is an interdisciplinary program that has been designed to acquaint students with the field of Russian and Central European studies through the study of art, culture, geography, history, language, literature, and political science.

Students are required to take 18 credits from the courses listed below. Up to 6 credits may be below the 300 level. Courses must be taken from at least two of the eight categories listed below. In addition, students must complete the 201 level in GER, POL, RUS, TRK (or other appropriate languages as instruction becomes available).

### Languages, Literatures, and Linguistics

- Any RUS, GER, POL, or TRK courses above the 201 level (Other appropriate courses with language prefixes as they become available, to be approved by the RCES advisor)

### Anthropology

- ANT 428 Transformation of Eastern Europe

### Art and Music Histories

- HOA 462 European Art Between the Wars

### Geography

- GEO 331 The European Union

### History

- HST 314 Europe from Bismarck to the First World War
- HST 315 Europe in the Age of Hitler and Stalin
- HST 316 Europe Since 1945
- HST 361 Germany to World War I, 1770-1918
- HST 362 Nazi Germany, 1933-1945
- HST 364 The Origins of Modern Russia
- HST 365 Soviet and Contemporary Russia

## Literature in Translation

- LIT 226 Dostoevsky and Tolstoy
- LIT 227 Pasternak and Solzhenitsyn
- LIT 331 Russian Culture Through Fiction and Film
- RUS/LIT 332 Russian Fairy Tales and Folklore
- RUS/LIT 361 Russian Literary Film Adaptations

(Other appropriate LIT courses to be approved by the RCES advisor as they become available)

## Philosophy

- PHI 418 Hegel, Marx, and Nietzsche

## Political Science

- PSC 347 Politics of Russia
- PSC 372 Marxist Theory

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# Russian And Central European Studies Major

Gerry Greenberg,  
441 Hall of Languages  
315-443-1414.

Faculty Patricia Burak, Gerald R. Greenberg, Erika Haber, Paul M. Hagenloh, Laurie Marhoefer, Karl Solibakke, Zofia Sztachmiller, Brian D. Taylor, Karina von Tippelskirch

The Russian and Central European Studies major is an interdisciplinary program that has been designed with some flexibility in order to serve students who wish to focus their liberal arts education on Russian and Central European studies, as well as those who look forward to a career as specialists in Russian or Central European affairs.

## MAJOR REQUIREMENTS

Students are required to take at least 30 credits from the courses listed below. Up to 6 credits may be below the 300 level. In addition, students must complete 201 in GER, POL, RUS, or TRK (or other appropriate languages as instruction becomes available), or earn at least 3 credits at a higher level in a course taught in the language.

### Languages, Literatures, and Linguistics

- Any RUS, POL, TRK, or GER courses above the 201 level

### Anthropology

- ANT 428 Transformation of Eastern Europe

### Art and Music Histories

- HOA 462 European Art Between the Wars

### Geography

- GEO 331 The European Union History

### History

- HST 314 Europe from Bismarck to the First World War
- HST 315 Europe in the Age of Hitler and Stalin
- HST 316 Europe Since 1945
- HST 361 Germany to World War I, 1770-1918
- HST 362 Nazi Germany, 1933-1945
- HST 364 The Origins of Modern Russia
- HST 365 Russia in the 20th Century

## Literature in Translation

- LIT 226 Dostoevsky and Tolstoy
- LIT 227 Pasternak and Solzhenitsyn

- LIT 331 Russian Culture Through Fiction and Film

#### Philosophy

- PHI 418 Hegel, Marx, and Nietzsche

#### Political Science

- PSC 332 Politics of Post Communist Europe
  - PSC 347 Politics of Russia
  - PSC 372 Marxist Theory
- 

## Russian Language, Literature, And Culture Major

Gerald R. Greenberg  
441 Hall of Languages  
315-443-1414.

Faculty Gerald R. Greenberg, Erika Haber, Zofia Sztachmiller

The study of Russian language, literature, and culture provides more than just competence in reading, writing, and speaking the language. Students in this major, which leads to a B.A. degree, also learn about Russian literature, art, folklore, film, media, and business, and, hence, about the people and culture as well. Through courses in other departments, students may also investigate the history, philosophy, and political science of Russia.

Students are admitted to the major through departmental approval and should consult the Russian language coordinator about their majors as early as possible. Early consultation is particularly important for students with little or no preparation in Russian so they may be sure to satisfy prerequisites and requirements within four years.

#### MAJOR REQUIREMENTS

To major in Russian, students complete the following requirements for either Option I or Option II. Option I The program requires 25 credits in RUS courses, 4 of which may be in lower-division courses.

Option II The program requires 28 credits, 16 of which are in RUS courses. (Of the 16 RUS credits, 4 may be in lower-division courses; the rest are in upper-division courses.) The remaining 12 credits (6 of which are in upper-division courses) will be in relevant courses approved by the Russian faculty, taught in English in various departments.

#### STUDY ABROAD

To become more fluent in Russian and to gain additional insight into the Russian culture and its people, students are encouraged to study abroad. For further information on programs administered through Syracuse University, contact the Russian Language Program Coordinator or Syracuse University Abroad.

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## Science Education-Biology

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (evradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

#### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

#### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more

than 12 total credits in this semester, unless approved by an advisor.

## Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

## Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

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## Page 2 Of Science Education-Biology

Contact: John W. Tillotson, 101 Heroy Building, 315-443-2586, [jwtilot@syr.edu](mailto:jwtilot@syr.edu).

In addition to the professional education requirements, students in science education complete the Bachelor of Arts\* with a major in the primary science area and the following requirements:

### Core Requirements

Science education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts-related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM) (3 credits)
- One multicultural humanities or social science course (3 credits)
- One approved calculus course (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

### Science Content

Science education majors are required to complete a major of no less than 30 credits in an area chosen from biology, chemistry, earth sciences, or physics.

In addition to the major or as part of the major's non-departmental science requirements, students must complete an introductory laboratory sequence in a second science area.

\*The B.S. degree may be earned in the primary science area instead of the B.A. with the completion of additional science requirements, paperwork, and an appropriate petition.

\*\* See specific departmental major course requirements for biology.

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## Science Education-Chemistry

### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)

- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

## Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

## Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

## Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

## Page 2 Of Science Education-Chemistry

Contact: John W. Tillotson, 101 Heroy Building, 315-443-2586, jwtillo@syr.edu.

In addition to the professional education requirements, students in science education complete the Bachelor of Arts\* with a major in the primary science area and the following requirements:

### Core Requirements

Science education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts-related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM)) (3 credits)
- One multicultural humanities or social science course (3 credits)
- One approved calculus course (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

### Science Content

Science education majors are required to complete a major of no less than 30 credits in an area chosen from biology, chemistry, earth sciences, or physics.

In addition to the major or as part of the major's non-departmental science requirements, students must complete an introductory laboratory sequence in a second science area.

\*The B.S. degree may be earned in the primary science area instead of the B.A. with the completion of additional science requirements, paperwork, and an appropriate petition.

\*\* See specific departmental major course requirements for biology.

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## Science Education-Earth Science

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvsradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

### Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

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## Page 2 Of Science Education-Earth Science

Contact: John W. Tillotson, 101 Heroy Building, 315-443-2586, jwtillo@syr.edu.

In addition to the professional education requirements, students in science education complete the Bachelor of Arts\* with a major in the primary science area and the following requirements:

### Core Requirements

Science education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts-related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3

credits)

- One humanities course (other than history (HST) or fine arts (HOA or HOM) (3 credits)
- One multicultural humanities or social science course (3 credits)
- One approved calculus course (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

## Science Content

Science education majors are required to complete a major of no less than 30 credits in an area chosen from biology, chemistry, earth sciences, or physics.

In addition to the major or as part of the major's non-departmental science requirements, students must complete an introductory laboratory sequence in a second science area.

\*The B.S. degree may be earned in the primary science area instead of the B.A. with the completion of additional science requirements, paperwork, and an appropriate petition.

\*\* See specific departmental major course requirements for biology.

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## Science Education-Physics

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvaradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

## PROFESSIONAL EDUCATION CORE

## (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

### The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

### Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

## Page 2 Of Science Education-Physics

Contact: John W. Tillotson, 101 Heroy Building, 315-443-2586, [jwtillot@syr.edu](mailto:jwtillot@syr.edu).

In addition to the professional education requirements, students in science education complete the Bachelor of Arts\* with a major in the primary science area and the following requirements:

### Core Requirements

Science education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts-related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM) (3 credits)
- One multicultural humanities or social science course (3 credits)
- One approved calculus course (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

### Science Content

Science education majors are required to complete a major of no less than 30 credits in an area chosen from biology, chemistry, earth sciences, or physics.

In addition to the major or as part of the major's non-departmental science requirements, students must complete an introductory laboratory sequence in a second science area.

\*The B.S. degree may be earned in the primary science area instead of the B.A. with the completion of additional science requirements, paperwork, and an appropriate petition.

\*\* See specific departmental major course requirements for biology.

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## Selected Studies Major

Shruti Viswanathan, Director,  
Advising and Academic Support  
323 Hall of Languages,  
315-443-3150.

The Selected Studies Program offers the student an opportunity to develop a highly individualized curricular plan. This program, which can lead to the B.A. or the B.S. degree, is intended to meet individual needs. It provides considerable freedom in curricular planning, but also requires greatly increased responsibility on the part of the student.

Each student in the Selected Studies Program develops a four-year program of study based on academic goals. He or she is assisted by a faculty advisor who helps to formulate an academically sound curriculum.

### GUIDELINES

Each Selected Studies Program provides for a total of at least 120 credits. Among the courses taken outside of the College of Arts and Sciences, no more than 24 credits may be taken in any one school or college of the University.

Proposals should avoid overspecialization. Proposals that seem to aim at narrow vocational training are likely to be rejected. Students whose applications indicate that they can best be served by a traditional major are likely to be rejected and referred to the appropriate department.

The B.A. in Selected Studies includes at least 90 credits of arts and sciences courses and a minimum of 60 credits in courses numbered at the 300-level or higher (upper division).

The B.S. in Selected Studies Program contains at least 75 credits of arts and sciences courses and a minimum of 50 credits in courses numbered at the 300-level or higher (upper division). It includes a minimum of 36 credits of courses in departments offering the B.S. degree at Syracuse University and exhibit a specialization of no more than 60 credits justifying the title of the program.

### ELIGIBILITY

Any student in good academic standing in the College of Arts and Sciences; with a GPA of 2.5; and with 30 credits of completed graded coursework taken at Syracuse University may apply for admission to the Selected Studies Program, subject to the following considerations:

1. Students are permitted to participate in the Selected Studies Program only after they have completed two semesters at Syracuse, but program proposals may be submitted for review at any time before the end of the junior year.
2. To assure timely approval, the student should submit the proposal to the Director of Advising and Academic Support at least 60 days before the registration period for the program's first semester.
3. A student cannot be admitted to the Selected Studies program later than the second semester of the junior year.

#### APPLICATION

Students who wish to participate in the Selected Studies program should consult Advising and Academic Support, 323 Hall of Languages, for a complete statement of procedures and requirements.

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## Selected Studies In Arts And Sciences

Shruti Viswanathan, Director,  
Advising and Academic Support  
323 Hall of Languages,  
315-443-3150.

The Selected Studies Program offers the student an opportunity to develop a highly individualized curricular plan. This program, which can lead to the B.A. or the B.S. degree, is intended to meet individual needs. It provides considerable freedom in curricular planning, but also requires greatly increased responsibility on the part of the student.

Each student in the selected studies program develops a four-year program of study based on academic goals. He or she is assisted by a faculty advisor who helps to formulate an academically sound curriculum.

#### GUIDELINES

Each Selected Studies Program provides for a total of at least 120 credits. Among the courses taken outside of the College of Arts and Sciences, no more than 24 credits may be taken in any one school or college of the University.

Proposals should avoid overspecialization. Proposals that seem to aim at narrow vocational training are likely to be rejected. Students whose applications indicate that they can best be served by a traditional major are likely to be rejected and referred to the appropriate department.

The B.A. in Selected Studies includes at least 90 credits of arts and sciences courses and a minimum of 60 credits in courses numbered at the 300-level or higher (upper division).

The B. S. in Selected Studies Program contains at least 75 credits of arts and sciences courses and a minimum of 50 credits in courses numbered at the 300-level or higher (upper division). It includes a minimum of 36 credits of courses in departments offering the B.S. degree at Syracuse University and exhibit a specialization of no more than 60 credits justifying the title of the program.

#### ELIGIBILITY

Any student in good academic standing in the College of Arts and Sciences; with a GPA of 2.5; and with 30 credits of completed graded coursework at Syracuse University may apply for admission to the Selected Studies Program, subject to the following considerations:

1. Students are permitted to participate in the Selected Studies Program only after they have completed two semesters at Syracuse, but program proposals may be submitted for review at any time before the end of the junior year.
2. To assure timely approval, the student should submit the proposal to the director of academic advising and counseling services at least 60 days before the registration period for the programs first semester.
3. A student cannot be admitted to the Selected Studies Program later than the second semester of the junior year.

#### APPLICATION

Students who wish to participate in the Selected Studies program should consult the Advising and Academic Support Office, 323 Hall of Languages, for a complete statement of procedures and requirements.

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## Social Studies Education

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

#### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

#### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

### Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

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## Page 2 Of Social Studies Education

Contact: Jeffery Mangram, 150 Huntington Hall, 315-443-2685 or jamangra@syr.edu

In addition to the professional education requirements, students in social studies education complete the Bachelor of Arts in a social science subject area and the following requirements:

### Core Requirements

Social studies education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One mathematics course-Statistics (MAT 121 or 122) is recommended (can also meet one of the program's research requirements) (3 credits)
- One arts related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM)) (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

## Social Studies Content

\* Social studies majors are required to complete a major in an area chosen from African American studies, American studies, anthropology, economics, geography, history, international relations, political science, policy studies, or sociology. If African American Studies or American Studies is chosen, all courses other than required humanities courses must be social science classes.

If history is not the chosen major, the following 18 credits of history must also be completed:

- HST 101 American History to 1865 (3 credits)
- HST 102 American History Since 1865 (3 credits)
- HST 111 Early Modern Europe, 1350-1815 (3 credits)
- HST 112 Modern Europe: Napoleon to the Present (3 credits)
- One nonwestern history course (3 credits)
- One upper-division history (300-level or above) by advisement (3 credits)

All majors must complete a course in economics (ECN), political science (PSC), cultural geography (GEO) from the social science list and one approved "global" course (which may overlap with other requirements).

All majors must complete SED 522 Study of Social Studies and three other courses that are considered social science research methods or theory based courses.

\* See specific departmental major course requirements for your chosen content major.

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## Sociology Major

Chair: Madonna Harrington Meyer  
302 Maxwell Hall,  
315-443-2346.

Andrew London, Undergraduate Director  
302 Maxwell Hall  
315-443-5067

Faculty Marjorie L. DeVault, Dawn Dow, Cecilia A. Green, Madonna Harrington Meyer, Prema Kurien, Andrew S. London, Amy Lutz, Yingyi Ma, Jackie Orr, Arthur Paris, Gretchen Purser, Merril Silverstein, Janet Wilmoth

The undergraduate major in Sociology is designed to provide students with both a broad introduction to the field and an opportunity for concentration within the specialty areas of the department. In addition to required courses in sociological theory and qualitative and quantitative research methods, the department offers a variety of substantive courses in inequality studies (e.g., gender, class, race / ethnicity, sexuality, and disability); health; education; immigration; family, aging and the life course; population studies; criminology and criminal justice; and social policy.

In addition to substantive specialization in Sociology, the major emphasizes skill development in the areas of analytic reasoning, analytic writing, computer literacy, elementary qualitative and quantitative research, information retrieval, and report presentation. Opportunities for internship experiences and/or assisting in faculty research projects are available and encouraged. Majors are encouraged to participate in a senior research seminar culminating in a symposium where they present the results and interpretation of their own research project. The department has an active Sociology Club and offers an annual undergraduate paper award that is supported by a generous gift from a donor.

### MAJOR REQUIREMENTS

Students are required to take 30 credits in Sociology, including Introduction to Sociology (SOC 101), Introduction to Research (SOC 318), Qualitative Methods in Sociology (SOC 319/WGS 317), and Sociological Theory (SOC 406). The 30 credits include an additional six courses, five of which must be numbered above 299 (one of the additional courses may be taken at the 200 level). Students may choose to complete a senior thesis (SOC 495) to fulfill one of the substantive courses. Statistics for Social Science (SOC 513) is recommended for those planning graduate study in the social sciences. Students are advised to take Introduction to Sociology (SOC 101) before enrolling in the other courses. The required research methods courses should be taken in the sophomore or junior year.

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## Sociology Minor

Chair: Madonna Harrington Meyer  
302 Maxwell Hall, 315-443-2346

Undergraduate Director Andrew London

302 Maxwell Hall,  
315-443-5067

Faculty Marjorie L. DeVault, Dawn Dow, Cecilia A. Green, Madonna Harrington Meyer, Prema Kurien, Andrew S. London, Amy Lutz, Yingyi Ma, Jackie Orr, Arthur Paris, Gretchen Purser, Merril Silverstein, Janet Wilmoth

To complete a minor in Sociology, students are required to take 18 credits in Sociology, including: Introduction to Sociology (SOC 101), and Introduction to Research (SOC 318) or Qualitative Methods in Sociology (SOC 319/WGS 317). The 18 credits include an additional four courses, three of which must be numbered above 299 (one of the additional courses may be taken at the 200 level).

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## South Asian Studies Minor

South Asian Studies  
346 Eggers Hall  
315-443-2553

Faculty Ahmed E. Abdel-Meguid, Sarosh Anklesaria, Shobha K. Bhatia, Tej K. Bhatia, Himika Bhattacharya, Mehrzad Boroujerdi, Richard L. Breyer, Tom Brutsaert, Manan Desai, Rashmi Gangamma, Tula Goenka, Ann Grodzins Gold, Roger Hallas, Tazim R. Kassam, Prema Kurien, Devashish Mitra, Chandra Talpade Mohanty, Iswari P. Pandey, Sudha Raj, Kamala Ramadoss, Romita Ray, Lars Rodseth, Jaipaul L. Roopnarine, Anoop Sadanandan, Larry Schroeder, Yüksel Sezgin, Farhana Sultana, Cecilia Van Hollen, Susan S. Wadley, Joanne P. Waghorne

The minor in South Asian Studies provides an understanding of the religious, historical, economic, political and artistic dimensions of the nations of South Asia: Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, Sri Lanka. In consultation with the advisor, students plan the minor according to their individual interests.

### Requirements

The minor requires 18 credits, 12 of which are in courses numbered 300 or above. While not required we urge students to take at least one, if not more, courses in Hindi-Urdu.

Students are required to take one of these two courses:

- HST/SAS 329 Making of Modern India
- ANT/SAS/WGS 324 Modern South Asian Cultures.

In addition, at least three more courses are to be selected from the following list:

- ANT/IRP/SAS 426 Cultures and Politics of Afghanistan and Pakistan
- ANT/SAS/WGS 324 Modern South Asian Cultures
- HOM 384/SAS 385 Music and Dance of India
- HIN/SAS 101 Hindi/Urdu I
- HIN/SAS 102 Hindi/Urdu II
- HIN/SAS 201 Hindi/Urdu III
- HIN/SAS 202 Hindi/Urdu IV
- HIN/SAS 620 Advanced Hindi
- HST/SAS 328 Ancient and Medieval India
- HST/SAS 329 Making of Modern India
- PSC/SAS 389 Politics of India
- REL/SAS 165 Discovering Islam
- REL/SAS 185 Hinduism
- REL/SAS 186 Buddhism
- REL/SAS 283 India's Religious Worlds
- REL/SAS/WGS 384 Goddesses, Women, and Power in Hinduism

Students may choose one course from the following list:

- GEO 367 Gender in a Globalizing World
- HOM 383 Worlds of Dance
- HOM 385 World Music Cultures
- HOM/WGS 494 Music and Gender
- LIN 471 Dimensions of Bilingualism and Multiculturalism
- LIN 481 Global Communication through World Englishes
- HST 375 British Empire

- REL/SAS 123 Religious Auto/Biography
- REL 324 Religions and Storytelling
- REL/SAS 367 The Quest for Beauty and the Sacred in Islam
- REL 395 Religions and the Natural Environment
- REL/SAS 465 Beyond the Veil: Gender Politics in Islam
- REL 487 Global Hinduism
- SOC/SAS 301 Contemporary Asian Americans

In addition, students may petition to fulfill their requirements using selected topics courses dealing with South Asia or courses taken on study abroad programs in South Asia, as well as the Muslim Cultures Program in London.

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## Spanish Minor

Spanish

Myrna García Calderón

Languages, Literatures, and Linguistics

310 HB Crouse

315-443-9489

A minor in Spanish consists of a minimum of 18 credits. Three credits from SPA 202 may be applied to the minor. SPA 301 Approaches to Reading Texts is a requirement for all majors and minors. It is recommended that students take SPA 301 immediately following SPA 202 and before entering any 400-level course. At least 6 credits of 300-level courses must be taken before entering the 400 level. At least 6 credits of 400-level courses are required for the minor.

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## Spanish Education

### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvsradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to

meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

## PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

## Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

## Page 2 Of Spanish Education

Contact: Gail A. Bulman, 340 HBC, 315-443-5385 or [gabulman@syr.edu](mailto:gabulman@syr.edu)

In addition to the professional education requirements, students in Spanish education complete a major in Spanish and the following requirements:

### Core Requirements

Secondary Spanish education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- WRT 205 Writing Studio 2 OR WRT 209 Writing Studio 2 (Honors) (3 credits)
- One mathematics (MAT) course from Liberal Arts Core Quantitative Skills List (3 credits)
- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts related course within Arts and Sciences (HOA or HOM, or other approved humanities course focusing on one or more of the arts) (3 credits)

If available, these may be courses taught in Spanish.

### Spanish Content

Spanish Education students must complete the Spanish Language, Literature and Culture [link to Spanish major] major as defined by the Languages, Literature and Linguistics Department. 30 credits are required at the 300 level and above, with 21 (7 courses) of these at the 400 level. Spanish Education students must include the following courses (not required of other SPA majors) within their programs, with 15 upper division courses completed on the SU campus:

- SPA 302 – Advanced Language Usage (3 credits)
- SPA 321 – Introduction to Spanish Literature (3 credits)
- SPA 322 – Introduction to Latin American Literature (3 credits)
- SPA 435 – Spanish Phonetics and Phonology (3 credits)
- SPA 436 – Structure of Spanish (3 credits)
- SPA 4XX 1 course of Latino Literature (3 credits)
- SPA 4XX – 2 courses of Latin American Literature (6 credits)
- SPA 4XX – 2 courses of Spanish Peninsular Literature (6 credits)

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## Spanish Language, Literature And Culture

Myrna García Calderón

Languages, Literatures, and Linguistics

310 HB Crouse

315-443-9489

The B.A. in Spanish language, literature, and culture offers cross-disciplinary exposure to the various literary genres and linguistic analyses of Spanish, South American, Central American, Caribbean, and Latino cultures. The language and history of the regions encourage students to formulate diverse theoretical models and cultural perspectives, which may be applied to a variety of career options. Courses range from the beginning level through a series of 300- and 400-level courses that allow students to pursue a major or minor in Spanish. All students with more than one year of high school Spanish are required to take a placement examination, which is given every fall. Students who do not take the exam in the fall should consult the Spanish language coordinator about their placement. The examination is a requirement for all students regardless of class standing.

First-year students need permission to enroll in courses numbered 300 or above. SPA 202 or its equivalent is a prerequisite for courses numbered 300 and above. Students, including transfers, with credits earned in Spanish, should consult the major advisor of Spanish as early as possible. Early consultation is also important for students with little or no preparation in Spanish so they may be sure to satisfy prerequisites and requirements within four years.

### STUDY ABROAD

To become fluent in the language and to learn about other cultures and people, students are encouraged to study abroad for a semester or a year. Syracuse University's programs in Madrid, Spain and Santiago de Chile allow students to take fully accredited courses in Spanish language and literature, anthropology, fine arts, history, political science, and public communication. Students should take all of their courses in Spanish. Students choosing Spanish

as a major are encouraged to take advantage of the study abroad program in Madrid or Santiago. Through the Dominican Republic Consortium students also have the opportunity to study in the Caribbean. For further information, contact the Spanish program coordinator or Syracuse University Abroad, 106 Walnut Place.

## MAJOR REQUIREMENTS

The major in Spanish consists of 27 credits in upper division courses taught in Spanish. Three credits from SPA 202 may be applied to the major. SPA 301 Approaches to Reading Texts is a requirement for all majors and minors. It is recommended that students take SPA 301 immediately following SPA 202 and before entering any 400-level course. At least 6 credits of 300-level courses must be taken before entering the 400 level. At least 12 credits of 400-level courses are required for the major.

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## Women's And Gender Studies Major

Department of Women's and Gender Studies  
208 Bowne Hall  
315-443-3560 Fax: 315-443-9221

Administrative Specialist: Susann DeMocker-Shedd,  
208 Bowne Hall,  
315-443-3560;  
Fax 315-443-9221.

Faculty Kal Alston, Himika Bhattacharya, Pedro DiPietro, Vivian M. May, Chandra Talpade Mohanty, Dana M. Olwan, Gwendolyn D. Pough, Minnie Bruce Pratt, Robin Riley

Women's and Gender Studies integrates theory and practice with the aim of transforming social relations, representations, knowledges, institutions, and policies. Through interdisciplinary and comparative approaches, students engage in the study of gender intersectionally and transnationally as a means of understanding the complex ways that ideas and practices about gender, past and present, shape the world around us. Issues of justice, social and economic transformation, and women's agency are central and at each level of study the curriculum emphasizes race, ethnicity, nationality, class, age, sexuality, and different abilities as categories of analysis.

## MAJOR REQUIREMENTS

The B.A. in women's and gender studies requires a minimum of 33 credits (at least 18 in courses numbered 300 and above) selected from courses listed below. Although the major is granted and administered under the auspices of the College of Arts and Sciences, students are able, and in some cases encouraged, to take elective courses in the professional schools. Requirements for the major include five core courses, three courses from the course grouping Power, Privilege, and Exclusion in Feminist Thought; and three electives, two core electives and one general elective selected from a list of approved cross-listed courses. In the senior year, majors may create a synthesis of their studies in the field and deepen their skills in women's and gender studies research, culminating in an independent project that can be a research project, creative work, or activism project. Note: Students seeking Academic Distinction in Women's and Gender Studies must register for WGS 498 Senior Project in Women's and Gender Studies.

## STUDY ABROAD

Women's and Gender Studies Focus Abroad is coordinated through the Syracuse University Abroad office in more than five countries. All of these international centers offer a number of interdisciplinary courses in women's and gender studies, cross-listed with the humanities and social sciences. Summer Studies Abroad courses are also available. For specific information on course offerings abroad, contact the SU Abroad office at 315-443-3471.

## B.A. DEGREE REQUIREMENTS

Required Core Courses (15 credits)

- WGS 101 Introduction to Women's and Gender Studies
- WGS 201 Transnational Feminist Studies
- WGS 301 Feminist Theory
- WGS 310 Feminist Inquiries
- WGS 410 Advanced Studies in Feminist Thought

Required Core Cluster Power, Privilege, and Exclusion in Feminist Thought (9 credits)

One course must be selected from each of the following three areas: Sexuality; Class; and Race, Nationality, and/or Ethnicity.

Sexuality (3 credits)

- WGS/ETS 192 Gender and Literary Texts

- WGS/SOC 230 Intergroup Dialogue: Gender
- WGS/SOC 305 Sociology of Sex and Gender
- WGS/AAS/SOC 309 Race, Gender and Sexuality in African Diaspora
- WGS/PSC 319 Gender and Politics
- WGS/SOC 355 Sociology of Health and Illness
- WGS/ETS 360 Reading Gender and Sexualities
- WGS/CFE 362 Youth, Schooling, and Popular Culture
- WGS 365 Negotiating Difference: Coming of Age Narratives
- WGS/ANT 373 Magic and Religion
- WGS/QSX/HST 389 LGBT History
- WGS 395 Gender and Popular Culture
- WGS/CRS 414 Communication and Gender
- WGS/SOC 425 Feminist Organizations
- WGS/SOC 433 Race, Class, and Gender
- WGS/SOC 435 Sexual Politics
- WGS/QSX 438 TransGender and Sexualities
- WGS 439 Women, Gender and Violence in Transnational Context
- WGS/PHI 441 Topics in Feminist Psychology
- WGS/AAS 445 The Caribbean: Sex Workers, Transnational Capitalism, and Tourism
- WGS/QSX 447 Sexualities and Genders in World Teen Cultures
- WGS 449/HOA 440 Women in Art
- WGS 452 Feminism and Postcolonial Studies
- WGS/MES/QSX 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies
- WGS/QSX/SOC 456 LGBT Studies in Sociology
- WGS/REL/MES/SAS 465 Beyond the Veil: Gender Politics in Islam
- WGS 473 Women, Rap, and Hip Hop Feminism
- WGS/HOM 494 Music and Gender
- WGS/GEO 576 Gender, Place, and Space

Class (3 credits)

- WGS/ECN 258 Poverty and Discrimination in America
- WGS/SOC 281 Sociology of Family
- WGS 318/PSC 328 American Social Movements
- WGS/ECN 325 Economics and Gender
- WGS/SWK 326 Persons in Social Contexts
- WGS/HST 335 American Social and Cultural History
- WGS/SOC 354/PSC 386 Gender, Militarism, and War
- WGS/SOC 355 Sociology of Health and Illness
- WGS/ECN 358 Economics of U.S. Poverty and Discrimination
- WGS/ANT 363 Anthropology of Family Life
- WGS/SOC 364 Aging and Society
- WGS/PSC 374 Law and Society
- WGS/CFS/SOC 422 Work and Family in the 21st Century
- WGS/SOC 425 Feminist Organizations
- WGS/AAS 427 NYC: Black Women Domestic Workers
- WGS/DSP/SOC 432 Gender and Disability
- WGS/SOC 433 Race, Class, and Gender
- WGS/CRS/WRT 436 Feminist Rhetoric(s)
- WGS 439 Women, Gender and Violence in Transnational Context
- WGS/AAS 445 The Caribbean: Sex Workers, Transnational Capital, and Tourism
- WGS/ANT 472 Language, Culture, and Society
- WGS/HOM 473 Women, Rap, and Hip Hop Feminism
- WGS/SOC 492 Work and Inequality
- WGS/NSD 555 Food, Culture, and Environment
- WGS/GEO 576 Gender, Place, and Space

Race, Nationality, and/or Ethnicity (3 credits)

- WGS/SOC 230 Intergroup Dialogue: Race and Ethnicity
- WGS/SOC 248 Ethnic Inequality
- WGS/PHI 297 Philosophy of Feminism
- WGS/AAS 303 Black Women Writers
- WGS/AAS 307 African Women Writers
- WGS/AAS309 Race, Gender and Sexuality in African Diaspora
- WGS 327/ANT 326 Africa Through the Novel

- WGS/SWK 328 Human Diversity in Social Context
- WGS/REL 341/HST 387 Women, Abolition, and Religion in 19th-Century America
- WGS/LAS/LIT 343 Latina Feminist Theories
- WGS/SOC 354/PSC 386 Gender, Militarism, and War
- WGS/SOC 355 Sociology of Health and Illness
- WGS 365/ETS 360 Negotiating Difference: Coming of Age Narratives
- WGS/ANT/GEO 367 Gender in a Globalizing World
- WGS/HST 371 Gender in Latin American History
- WGS/HST 379 Gender, Race, and Colonialism
- WGS/REL/SAS 384 Goddess, Women, and Power in Hinduism
- WGS 395 Gender and Popular Culture
- WGS/AAS 403 African/Caribbean Women Writers
- WGS/SOC 425 Feminist Organizations
- WGS/AAS 427 NYC: Black Women Domestic Workers
- WGS/SOC 433 Race, Class, and Gender
- WGS/CRS/WRT 436 Feminist Rhetoric(s)
- WGS 439 Women, Gender and Violence in Transnational Context
- WGS/CFE 444 Schooling and Diversity\*
- WGS/AAS 445 The Caribbean: Sex Workers, Transnational Capital, and Tourism
- WGS/QSX 447 Sexualities and Genders in World Teen Culture
- WGS 452 Feminism and Postcolonial Studies
- WGS/MES/QSX 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies
- WGS/ANT 455 Culture and AIDS
- WGS/REL/MES/SAS 465 Beyond the Veil: Gender Politics in Islam
- WGS/ANT 472 Language, Culture, and Society
- WGS/ANT 474 Culture and Folklore
- WGS/SPA/LAS 475 Women, Myth, and Nation in Latin American Literature
- WGS/AAS 512 African American Women's History
- WGS/AAS 513 Toni Morrison: Black Book Seminar
- WGS/ANT 553 Women and Social Change

Core Electives (6 credits): students must complete two core elective courses from the following:

- WGS 240 Topics in Contemporary Feminisms
- WGS 300 Selected Topics (if taught by core WGS faculty)
- WGS/LAS/LIT 343 Latina Feminist Theories
- WGS/SOC 354/PSC 386 Gender, Militarism, and War
- WGS 365 Negotiating Difference: Coming of Age Narratives
- WGS 395 Gender and Popular Culture
- WGS 400 Selected Topics (if taught by core WGS faculty)
- WGS 410 Advanced Seminar in Feminist Thought
- WGS 425 Feminist Organizations
- WGS/CRS/WRT 436 Feminist Rhetoric(s)
- WGS/QSX 438 TransGenders and Sexualities
- WGS 439 Women, Gender and Violence in Transnational Context
- WGS/QSX 447 Sexualities and Genders in World Teen Culture
- WGS 452 Feminism and Postcolonial Studies
- WGS/MES/QSX 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies
- WGS/HOM 473 Women, Rap, and Hip-Hop Feminism
- WGS 498 Senior Project in Women's and Gender Studies
- WGS 500 Selected Topics (if taught by core WGS faculty)

General Electives (3 credits)

Students must complete one elective course. They may choose from any WGS course.

\*Course content varies each semester or by section. These courses may be counted toward women's and gender studies only when the content of the courses is within the field of feminist studies. Selected topics (400/500) courses may apply when appropriate.

## Women's And Gender Studies Minor

Department of Women's and Gender Studies  
 208 Bowne Hall  
 315-443-3560

The minor in women's and gender studies requires 21 credits of coursework (at least 15 in courses numbered 300 or above). In keeping with the guidelines for the major, the concentration requires students to take the five core courses listed below and two electives, one core elective, and one general elective chosen from an approved list of cross-listed courses.

WGS 101 Introduction to Women's and Gender Studies  
WGS 201 Transnational Feminist Studies  
WGS 301 Feminist Theory  
WGS 310 Feminist Inquiries  
WGS 410 Advanced Studies in Feminist Thought

Core Elective Listing (same as Major)

- WGS 240 Topics in Contemporary Feminisms
- WGS 300 Selected Topics (if taught by core WGS faculty)
- WGS/LAS/LIT 343 Latina Feminist Theories
- WGS/SOC 354/PSC 386 Gender, Militarism, and War
- WGS 365 Negotiating Difference: Coming of Age Narratives
- WGS 395 Gender and Popular Culture
- WGS 400 Selected Topics (if taught by core WGS faculty)
- WGS 410 Advanced Seminar in Feminist Thought
- WGS/SOC 425 Feminist Organizations
- WGS/CRS/WRT 436 Feminist Rhetoric(s)
- WGS/QSX 438 TransGenders and Sexualities
- WGS 439 Women, Gender and Violence in Transnational Context
- WGS/QSX 447 Sexualities and Genders in World Teen Culture
- WGS 452 Feminism and Postcolonial Studies
- WGS/MES/QSX 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies
- WGS/HOM 473 Women, Rap, and Hip-Hop Feminism
- WGS 498 Senior Project in Women's and Gender Studies
- WGS 500 Selected Topics (if taught by core WGS faculty)
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## Women's And Gender Studies Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Women's and Gender Studies and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the

School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Writing Minor

Writing Minor

Lois Agnew, Writing Program Chair and Director  
239 H.B. Crouse  
315-443-1091

In addition to offering both a major and a minor, the Writing Program coordinates and facilitates writing instruction across the curriculum within the University. The goal of the Writing Program is to integrate writing with reading and critical thinking in all disciplines and to encourage continuing development of these abilities. The program cooperates with other units to help writers and teachers achieve these goals.

Syracuse University students usually take WRT 105 (Studio 1: Practices of Academic Writing) and WRT 205 (Studio 2: Critical Research and Writing). Writing Studios 1 and 2 serve as pre-requisites for upper-division writing courses.

WRT 105—taken in the first semester of the first year—focuses on the study and practice of writing processes, including critical reading, collaboration, revision, editing, and the use of technologies. Academic writing—especially analysis and argumentation—is the focus.

WRT 205—normally taken in the spring of the second year—builds on the work of WRT 105 and the experiences of writing during the first year. Students study and practice critical, research-based writing, including research methods, presentation of ideas and information, and source evaluation.

At the upper division, students may take advanced courses in civic, researched, digital, and professional writing, in style and editing, and in creative nonfiction, as well as study rhetoric and identity, information technologies, literacy, and the politics of language and writing.

The Writing Program is also home to The Writing Center (H.B.Crouse 101; 315-443-5289), a resource for all writers at Syracuse University. See our web site at [wrt.syr.edu](http://wrt.syr.edu) for more information.

### MINOR IN WRITING

The minor in writing offers students the opportunity to develop expertise in writing for academic, professional, civic, and personal purposes. The coursework provides practice in writing in a range of genres, editing and style, publishing, and digital media. Courses also investigate rhetoric, information technology, the politics of language use, and language and identity.

#### Requirements

The minor in writing is available to all undergraduates at Syracuse University. Students must have credit for WRT 105 and WRT 205, or equivalent. Students may begin the minor before completing WRT 205. The minor requires 18 credits: WRT 255 plus 15 WRT credits numbered 300 or above, excluding WRT 320.

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## Writing And Rhetoric Major

Lois Agnew, Writing Program Chair and Director  
239 H.B. Crouse  
315-443-1091

Faculty Lois Agnew, Patrick W. Berry, Collin G. Brooke, Kevin Browne, Margaret Himley, Krista Kennedy, Rebecca Moore Howard, Brice Nordquist, Stephen Parks, Minnie Bruce Pratt, Eileen E. Schell, Tony Scott

In addition to offering both a major and a minor, the Writing Program coordinates and facilitates writing instruction across the curriculum within the University. The goal of the Writing Program is to integrate writing with reading and critical thinking in all disciplines and to encourage continuing development of these abilities. The program cooperates with other units to help writers and teachers achieve these goals.

Syracuse University students usually take WRT 105 (Studio 1: Practices of Academic Writing) and WRT 205 (Studio 2: Critical Research and Writing). Writing Studios 1 and 2 serve as pre-requisites for upper-division writing courses.

WRT 105—taken in the first semester of the first year—focuses on the study and practice of writing processes, including critical reading, collaboration, revision, editing, and the use of technologies. Academic writing—especially analysis and argumentation—is the focus.

WRT 205—normally taken in the spring of the second year—builds on the work of WRT 105 and the experiences of writing during the first year. Students study and practice critical, research-based writing, including research methods, presentation of ideas and information, and source evaluation.

At the upper division level, students may take advanced courses in civic, researched, digital, and professional writing, style and editing, and in creative nonfiction, as well as study rhetoric and identity, information technologies, literacy, and the politics of language and writing.

The Writing Program is also home to The Writing Center (H.B.Crouse 101; 315-443-5289), a resource for all writers at Syracuse University. See our web site at [wrt.syr.edu](http://wrt.syr.edu) for more information.

## MAJOR REQUIREMENTS

To qualify for a B.A. degree in Writing and Rhetoric, students complete a total of 30 credits of coursework. These credits include the required core courses WRT 255, WRT 302, WRT 307, WRT 413, three courses from Genres and Practices, and three courses from Writing Histories and Theories.

### Required Core Courses (12 credits)

- WRT 255 Advanced Argumentative Writing
- WRT 302 Digital Writing
- WRT 307 Professional Writing
- WRT 413 Rhetoric and Ethics

### Genres and Practices (9 credits) (students select 3)

- WRT 301 Civic Writing
- WRT 303 Research Writing
- WRT 307 Professional Writing
- WRT 308 Style
- WRT 331 Peer Writing Consultant Practicum
- WRT 340 Advanced Editing Studio
- WRT 417 Advanced Technical Documentation
- WRT 419 Advanced Technical Writing Workshop
- WRT 422\* Studies in Creative Nonfiction
- WRT 427 Writing in Design and Development Environments
- WRT 470 Internship in Writing (community or business-based internships: [wrt.syr.edu/internships/](http://wrt.syr.edu/internships/))
- Approved non-WRT courses\*\*: ETS 401/402, ETS 403, NEW 205, BDJ 205, PRL 214

### Writing Histories and Theories (9 credits) (students select 3)

- WRT 423 African American Rhetoric
- WRT 424\* Studies in Writing, Rhetoric, and Identity
- WRT 426\* Studies in Writing, Rhetoric, and Information Technology
- WRT 428\* Studies in Composition, Rhetoric, and Literacy
- WRT/WGS/CRS 436 Feminist Rhetoric(s)
- WRT 440\* Studies in the Politics of Language and Writing
- WRT 437 Information Architecture and Technical Documentation
- WRT 447 Technical Writing for a Global Audience
- Approved non-WRT courses\*\*: ETS 325, ETS 420, ETS 440, CRS 336, CRS 338, CRS 355, CRS/WGS 414, CRS 455, CRS 483

\*These courses are repeatable.

\*\*At most, a total of two approved non-WRT courses (6 credits) from the above lists can be used toward the major.

## DISTINCTION IN WRITING AND RHETORIC

Students may earn the award of Distinction in Writing if the following criteria are met. First, the student must have an overall cumulative GPA of 3.4 and a minimum GPA of 3.5 in WRT after taking at least four Writing and Rhetoric major courses to be eligible to enroll in WRT 495 and WRT 496, Senior Research Seminars 1 and 2. Second, the student must complete a total of 3 credits in WRT 495 and WRT 496 and a thesis-length independent research or creative project. Third, the student must complete the senior year with a minimum cumulative GPA of 3.4 and GPA of 3.5 in the Writing and Rhetoric major courses.

## THE ELECTRONIC PORTFOLIO

All Writing majors are encouraged to produce and maintain an electronic writing portfolio. This portfolio allows students in the Writing major to archive and demonstrate their expertise within and across multiple genres and rhetorical contexts. Electronic writing portfolios serve as a record of each student's development and growth as a writer over their course of study and should not be limited to a specific number of writing products. The student, in consultation with his or her advisor and informal faculty mentors, is ultimately responsible for deciding what will be included in the electronic portfolio and how that portfolio will be shaped for specific purposes: professional, academic, public, and creative or a combination of two or more. Students may want to create portfolio "chapters" or segments, which encompass different genres, purposes, and audiences.



# Courses

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## Asian/Asian American Studies

### AAA 101 Introduction to Asian/Asian-American Studies 3 Y

Examines how cross border transactions in Asia and between Asia and the United States and Canada have shaped ideologies and politics, markets here and abroad, marriage, labor, personal, social, political and cultural identity.

### AAA 300 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

## African American Studies

### AAS 112 Introduction to African American Studies in Social Sciences 3 S Crosslisted with: ANT 112

Historical and sociopolitical materials. Approaches to studying the African American experience, antecedents from African past, and special problems.

### AAS 138 Writing About Black Culture 3 S

Expository writing based on cogent analysis of African American literature, art, music, and history ideas.

### AAS 200 Selected Topics 1-3 Y

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### AAS 202 Caribbean Society Since Independence 3 Y

Issues of self determination and emancipation in region. From the period of the invasions of explorers after the European renaissance to the present.

### AAS 206 Introduction to African American Music 3 Y

Introduces students to the contributions and transformations made in the music that the enslaved African brought to the western hemisphere.

### AAS 207 A Survey of African Music 3 Y

Survey music from Morocco to South Africa using diverse media to illuminate this vast area. The concentration will be on the lifestyle of the people who create music.

### AAS 231 African American Literature to 1900: An Introduction 3 Y

African American literature and folklore from colonial days to 1900. Autobiographies, fiction, and poetry, including works by Wheatley, Douglass, Jacobs, Brown, Webb, Hopkins, Dunbar, Chesnutt, Dubois, Johnson, Washington.

### AAS 232 African American Literature: Twentieth and Twenty-First Centuries 3 Y

Survey of 20th and 21st Century African American literature (U.S. terrain). Emphasis on aesthetics, culture and politics of Black writers and writing: 1920's to present. Literary and cultural frameworks of analysis. Baldwin, Dandicat, Hurston, Morrison, Sanchez, Wilson and Wright.

### AAS 233 The Caribbean Novel 3 Y

Fiction in English and translation by writers from Caribbean areas, and Brazil. Historical, social, and cultural factors. Representations and concepts of gender, home, and migration. Barrett, Conde, Hodge, James, Lamming, Marshall, Roumain.

### AAS 234 African Fiction 3 Y

Fiction in English and translation by contemporary novelists from Africa. Thematic and conceptual approaches underscore the literary force of language and creativity. Social and literary dynamics of books and related films. Achebe, Adichie, Aidoo, Ba, Dadie, Diop, Head, Ngugi, Sembene.

### AAS 235 African American Drama 3 Y

African American drama from inception to present. Includes the works of playwrights such as Brown, Grimke, Hughes, Hansberry, Baldwin, Baraka, Ward, Fuller, and Wilson.

### AAS 241 African Religions: An Introduction 3 O

Crosslisted with: REL 281  
Historical and comparative study of religious practice in Africa. Diversity of traditional beliefs, developments in Christianity and Islam, and political significance of religious identity and practice. African influence on western religious practices.

### AAS 254 Comparative Study of American Ethnic Communities 3 IR

Crosslisted with: SOC 254  
Variety of ethnic communities in American society. Comparative analysis of similarities and uniqueness. Issues of group conflict, diversity, and unity.

### AAS 290 Independent Study 1-6

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

### AAS 300 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### AAS 302 Contemporary African American Theater 3 S

Themes, images, and aesthetics of contemporary African theater examined through works of contemporary Black playwrights, scholars, and critics. Includes behind-the-scenes study of an African American theater production.

### AAS 303 Black Women Writers 3 Y

Crosslisted with: WGS 303  
Literature and scholarship by Black women writers. Analytical reading, writing and discussion of various topics, stylistic questions, strategies generated in autobiography, fiction, drama, poetry, speeches and scholarship: 1960's to present, and earlier times. Bambara, Davis, Hurston, Jones, Lorde, Morrison, Williams.

### AAS 304 Workshop: African American Theater 3 Y

How text of play by Black writer is realized in an on stage production. Introduction to aspects of production (costuming, lighting, sound) and study of play selected and related materials. Production experience by work on full stage production.

### AAS 305 African Orature 3 Y

Theory and practice of African orature. Exploration of ethics and aesthetics through study of main genres, selected texts, and film. Discourse on application and linkages with Caribbean and African American orature forms.

### AAS 306 African American Politics 3 Y

Crosslisted with: PSC 306  
Introduction to the African American experience in the American political system, from the colonial period to the present. Organization/leadership, federal institutions/relations, sociopolitical movements, and electoral politics.

AAS307 African Women Writers 3 Y

Crosslisted with: WGS 307

Literature in English and translation by African women writing from a variety of cultural stances and geographic locations in Africa, Europe and North America. Writing styles and creative modes of expression used by African women writers to convey and envision the life of their work. Adichie, Aidoo, Dangaremba, El Sadaawi, Liking, Mbye d'Ernville, T adjo.

AAS309 Race, Gender and Sexuality in African Diaspora 3 S

Crosslisted with: SOC 309, WGS 309

To introduce students to the reality of how racism informs the common sense understanding of Black sexuality.

AAS310 Elements of Theater Production 3 Y

A practical look at various steps of production, while accessing factors which contribute to successful theater. R1, 6 credits maximum

AAS312 Pan Africanism 3 Y

Impact of Pan African thought and action in the 20th century. Focus on social movements and ideas reflected in the Pan African movement in the continent and the African diaspora.

AAS325 Africa to 1800 3 Y

Crosslisted with: HST 325

The first half of a two semester survey focusing on the evolution of African cultures and civilization in the traditional period. Topics: the emergence of man, migration of peoples, economic and social systems, state formation, the slave trade. Arabic influences and the early European settlement in South Africa.

AAS326 Africa Since 1800 3 Y

Crosslisted with: HST 326

Second half of the survey, studying Africa when it was affected by European peoples and cultures. Topics: penetration by European explorers and missionaries, imperialism and colonialism, African resistance and rebellion, nationalism and liberation, neocolonialism and other problems of independence.

AAS327 History of Southern Africa 3 IR

Begins before arrival of Europeans in southern Africa. Economic, geographic, sociological, and political factors contributing to development of this unique, racially based modern state. Includes Afrikaaner diaspora, Euro-African conflict during the nineteenth century, Anglo-Boer War, from union to apartheid, and resistance to European domination.

AAS331 The African American Novel: Twentieth and Twenty-First Centuries 3 E

Novelists such as Hughes, Larsen, Hurston, Toomer, Wright, Baldwin, Ellison, Gaines, Morrison, Walker, Briscoe, and Clarke will be included. The place of these authors in African American fiction in particular and American fiction in general will be analyzed.

AAS332 African American History:

Through the 19th Century 3 Y

Crosslisted with: HST 332

Cultural, economic, political, and social developments shaping experiences of North Americans of African descent. Foundations of collective identity and diversity. African American historiography. Interpretive and methodological issues in historical practice.

AAS333 African American History: After the 19th Century 3 Y

Crosslisted with: HST 333

Continuation of AAS/HST 332.

AAS338 Creative Writing Workshop 3 IR

Poetry and prose workshop. Students exposed to techniques of craftsmanship, use of meditation to expand the visionary experience, and aesthetic sensibilities that involve African American culture.

AAS341 Politics of Africa 3 Y

Crosslisted with: PSC 341

Historical foundations of the move towards political freedom, democracy and self rule in Africa. Dynamics of the political process.

AAS345 African American Religious History 3 Y

Crosslisted with: REL 345

Historical significance of religion for Americans of African descent. African and western forces shaping religious identity. Religious practices, beliefs, organizations, imagery, literature, theories, and activism. Historical perspectives on meanings of religion.

AAS346 Comparative Third World Politics 3 Y

Crosslisted with: PSC 346

Examines thematically and comparatively the political systems of South America, Asia, and Africa, exploring topics such as colonization, decolonization, nation-building, the postcolonial state and its institutions, the recent wave of democratization, and the challenges of socioeconomic development.

AAS353 Sociology of the African American Experience 3 E

Crosslisted with: SOC 353

Theory and research of African American sociologists in the historical, social, and political context of American sociology. Relation of their work to the African American experience and its reception and impact in the public policy arena.

AAS361 Art of the Black World 3 Y

Crosslisted with: HOA 386

Arts of the African Diaspora. Emphasis on African American Art. Seventeenth century to present. Gender, socioeconomic, political and cultural contexts. Artistic implications of Black culture in comparative perspective with other artists and artistic movements.

AAS364 African International Relations 3 Y

Crosslisted with: PSC 364

The place of Africans in the international system; specific issues emanating from the decolonization process. Issues of militarism, humanitarianism, peacekeeping, and genocide; challenges of globalization.

AAS365 International Political Economy of the Third World 3 Y

Crosslisted with: PSC 365

Political and economic problems developing countries face in international economic relations, attempts to solve them. Discusses the making of the international system, the "third world," globalization, trade, debt, multinational corporations, multilateral lending agencies (IMF, World Bank).

AAS367 Protestant Movements & African American Artists: 19th & 20th Centuries 3 IR

Influences, trends, and social significance of selected visual art expressions and philosophies that were designed to re-inforce or effect social change for blacks from slavery to the present.

AAS380 International Course 1-12

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R11, 12 credits maximum

AAS390 Independent Study 1-6 IR

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

AAS400 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

AAS402 Slavery and Abolition 3 Y  
Crosslisted with: HST 402  
Evolution and diverse character of North American slavery and antislavery. Slavery as labor, legal, and property system, cultural and political phenomenon, and social and economic network. Politics and ethics of abolition.

AAS403 African and Caribbean Women Writers 3  
Crosslisted with: WGS403  
Comparative approaches and trans-Atlantic analysis of literature by women writers from Africa and the Caribbean. Representations and constructions of social, political, and cultural life in colonial, neo-colonial, and contemporary contexts. Writers such as Ba, Brodber, Dangaremba, Marshall, Head, Dandicat, Nwapa.

AAS408 Masters of American Black Music 3 Y  
Double Numbered with: AAS608

Various masters of African American music and how these masters brought beauty and happiness to the common place.

AAS409 History of Jazz, 1940 to Present 3 Y

Double Numbered with: AAS609  
Determine why bebop was the most significant style development in the 20th century. How did it liberate the music from dance music to its own art form? Additional work required of graduate students.

AAS410 Seminar on Social Change 3 IR  
Crosslisted with: SOC 410

Changes in African American communities or in the circumstances of African Americans within a particular institutional arena. Movements to promote change and obstacles to change. Substantive focus varies. R

AAS412 Hurricane Katrina: Race, Class, Gender & Disaster 3 SI

Course explores the development of US Gulf Region to understand the disparate impacts of race, class, gender, and age inequalities resulting from Hurricane Katrina, the New Orleans levees breaches, and the 2010 BP Oil Spill.

AAS413 There Goes the Neighborhood: US Residential Segregation 3 IR  
Crosslisted with: SOC 413  
Chronicles patterns of racial residential segregation in the US by examining the methods that maintain racially distinct neighborhoods. Explores link between segregation and education, social mobility, health, and mortality.

AAS416 Race, Crime and Punishment 3 SI

Crosslisted with: SOC 416  
The multiple and complex relationships between race, the power to punish, and crime control policies and practice. Exploration of the theories of crime and punishment from classic to postmodern.

AAS427 New York City: Black Women Domestic Workers 3 Y  
Crosslisted with: SOC 427, WGS427; Double Numbered with: AAS627

Historical understanding of Black women's engagement in paid domestic work in the United States, increasing need for domestic workers in the ever-changing economy and family, and the social construction of Black women as "ideal" domestic workers.

AAS433 Harlem Renaissance: Literature and Ideology 3 E

Literature, politics, and social transformations during the Harlem Renaissance and New Negro Movements. Selected writers, intellectuals and activists in relation to national and international spheres of history, creativity, influence, and experience in the U.S., Europe, African, and the Caribbean. Writers such as Ida B. Wells, DuBois, Damas, Garvey, Hughes, Nadal, West.

AAS434 Underground Railroad 3 SI  
Crosslisted with: ANT 494, HST 434; Double Numbered with: AAS634

Myth and history of the Underground in the context of African American freedom efforts. Emphasis on events, personalities, and sites in upstate New York. Student field research and exploration of archival and Internet resources. Additional work required of graduate students.

AAS445 The Caribbean: Sex Workers, Transnational Capital, and Tourism 3 Y  
Crosslisted with: SOC 445, WGS445; Double Numbered with: AAS645

A political economy approach to educating students about the human and capital costs of tourism to the Caribbean. The integral relationship between sex work and Caribbean tourism exposes the region's development that has resulted in its current configuration.

AAS465 The Image of Blacks in Art and Film 3 Y

Examining images of African Americans in feature length films, beginning with the invention of the moving image to the present day. Comparisons with artistic images are grounded in gender, socioeconomic, political and cultural contexts.

AAS470 Experience Credit 1-6 S  
Supervised internship with a local community agency. R

AAS480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

AAS490 Independent Study 1-6  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

AAS499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R

AAS500 Selected Topics 1-3 SI  
Interdisciplinary seminar examining various areas of intellectual and research interests related to the American black experience. Integrates knowledge of historical, cultural, sociological, political, and economic issues. Prereq: lower-division course in the social sciences. R

AAS501 African American Sociological Practice: 1900-45 3 IR  
Intellectual traditions and histories of African American sociologists between 1900 and 1945. Understanding the nature of their contributions to various strands of American and Pan African social thought. Impacts on public policy.

AAS503 Black Paris: Studies in Literature, Culture and Intellectual Life 3 E

Baldwin, "Bricktop", Cesaire, Conde, Diop, Himes, and Wright. Jazz, Negritude, and Presence Africaine. Literature, films, concepts, and contemporary issues involving: expatriation, colonialism, racism, and immigration; and places such as the Café Tournon, Belleville, the Louvre, and University of Paris.

AAS 510 Studies in African American History 3 IR

Crosslisted with: HST 510

Particular periods or aspects of African American history. R

AAS 512 African American Women's History 3 O

Crosslisted with: WGS 512

The intellectual, political, and social history of African American women from pre-colonial Africa to the re-emergence of black feminism in the late 20th-century United States.

AAS 513 Toni Morrison: Black Book Seminar 3 E

Crosslisted with: WGS 513

A multi-dimensional study of Morrison's bookwork: fiction, non-fiction, and scholarship. Involves conceptual frameworks and ideas that link this project with broader understandings and interpretations of Blacks in the world. A wide range of questions (i.e., aesthetics, feminisms, knowing-politics, language, race) derives from Morrison's literary witnessing of Black community life.

AAS 525 Research Methods in African American Studies 3 Y

Conceptual, technical, and ethical tools for research among populations in the African Diaspora. Guidelines and practice in reviewing literature and assessing historiography data gathering and analysis, interviewing, participant observation, and archival research.

AAS 540 Seminar: African American Studies 3-4 Y

Various areas of intellectual and research interests related to the American black experience. Integrates knowledge of historical, cultural, sociological, political, and economic issues. R

AAS 580 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

AAS 590 Independent Study 1-6 IR  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

## Anthropology

ANT 100 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ANT 111 Introduction to Cultural Anthropology 3 S

Economics, politics, religion, symbolism, rites of passage, developmental cycle, and expressive culture. Required for Anthropology majors.

ANT 112 Introduction to African American Studies in Social Sciences 3 S

Crosslisted with: AAS 112

Historical and sociopolitical materials.

Approaches to studying the African American experience, antecedents from African past, and special problems.

ANT 121 Peoples and Cultures of the World 3 S

Case studies of global cultural diversity. Exploration of daily life, rites of passage, marriage, family, work, politics, social life, religion, ritual, and art among foraging, agricultural, and industrial societies.

ANT 131 Introduction to Biological Anthropology 3 Y

Biological anthropology subfields; anthropology's relationship to history of science. Evolutionary theory; mechanisms of evolution; survey of the non-human primates; humans ancestral to modern Homo sapiens; and modern human variation. Required for Anthropology majors.

ANT 141 Introduction to Archaeology and Prehistory 3 Y

Survey of the prehistoric past spanning the origins of humankind through the rise of complex societies. Class activities and field trips provide a hands on introduction to archaeological interpretation.

ANT 145 Introduction to Historical Archaeology 3 Y

Crosslisted with: HST 145

Role of history and archaeology in our understanding of 17th- to 19th-century Europe, Africa, and America. Historical archaeology as a mechanism to critique perceptions of the past. Firsthand record of ethnic groups and cultural settings not recorded in writing.

ANT 185 Global Encounters: Comparing World Views & Values Cross-Culturally 3 Y

Predominant views of reality and values in the cultures of Asia, Africa, and the Americas. Humanistic study of cultures and nature of cross-cultural understanding.

ANT 200 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ANT 202 Languages of the World 3 Y

Crosslisted with: LIN 202

Introduction to Universal Grammar.

Similarities and differences in structures of human languages. Syntax and morphology. Theory development.

PREREQ: LIN 201.

ANT 221 Morality and Community 3 O

Crosslisted with: REL 221

Examines how globally diverse religious groups create distinct moral systems in order to provide their members with the feeling of belonging to unique and meaningful communities.

ANT 270 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination.

Limited to those in good academic standing. R

ANT 273 Indigenous Religions 3 E

Crosslisted with: NAT 244, REL 244

The connections between material life and religious life in cultures throughout the world. The diverse ways that various cultures inhabit their landscapes.

ANT 290 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ANT 300 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ANT 311 Anthropological Theory 3 S

Anthropological theory focusing on debates about human nature, cultural and racial diversity, and the goals of anthropology as a discipline. Required for majors.

ANT 318 African Cultures 3 IR  
Selected contemporary African cultures. West Africa and the impact of the slave trade. Aspects of colonialism and neocolonialism and their relationship to current social and political development.

ANT 322 South American Cultures 3 Y  
Crosslisted with: LAS 318  
Archaeology and cultural history. Racial, linguistic, and cultural areas from 1492 to today. Studies of contemporary Indian and Mestizo populations.

ANT 323 Peoples and Cultures of North America 3 IR  
Crosslisted with: NAT 323  
Racial, linguistic, and cultural areas of North America from the Rio Grande to the Arctic. Selected areas and tribes. Data from archaeology, historical records, and contemporary anthropological fieldwork.

ANT 324 Modern South Asian Cultures 3 SI  
Crosslisted with: SAS 324, WGS 324  
Societies of India, Pakistan, Bangladesh, and Sri Lanka. Social organization, economic and political structures, religions and world view, survey of languages, the arts. Transition and modernization, rural and urban problems.

ANT 325 Anthropology of American Life in Film 3 Y  
Analysis of American culture using film and literature. Concept of "national character." Major cultural configurations and themes.

ANT 326 Africa Through the Novel 3 IR  
Crosslisted with: WGS 327  
Cultural, political, and social life of Africa and Africans through African literature. Each semester deals with a motif (e.g., novels of Achebe).

ANT 327 Anthropology of Race in Latin America and the Caribbean 3 IR  
History of racial ideologies in Latin America and the Caribbean; interactions of racial ideologies with self concepts and life chances; racial ideologies' shaping of expressive culture and religion; antiracism movements and legislation; race and transnational migration.

ANT 346 Gender Through the Ages 3 IR  
The study of gender in archaeology from the late Stone Age to Modern era.

ANT 348 History of Archaeology 3 IR  
Double Numbered with: ANT 648  
Tracing the discipline's origins with the Renaissance dilettante. Brief survey of scientific and quantitative methods.

ANT 349 Archaeology at the Movies: The Scientific Study of the Past in Popular Culture 3 Y  
Introduction to modern archaeology and the scientific study of the past. Utilizing fictional portrayals of archaeological interpretation in popular culture the course examines some of the major research questions of modern anthropology.

ANT 352 Food, Culture and Identity 3 S  
Offered only in London. Introduction to a variety of critical approaches; questions about power and representation; role of food in construction of identity.  
PREREQ: RENEE CROWN HONORS PROGRAM OR 3.4 MINIMUM GPA.

ANT 355 Spanish Society and Pop Culture 3 S  
Crosslisted with: SOC 345  
Offered only in Madrid. Explores what is considered important, good, and fashionable in Spain today and how these values relate to historical developments as well as foreign influences.  
PREREQ: SPA 201.

ANT 356 Applied Anthropology 3 IR  
Describes past and present uses of anthropology in social policy. Examines the discipline's role in addressing global issues such as economic development, environmental degradation, indigenous rights, refugees, and health care. Careers in nonacademic settings.

ANT 357 Health, Healing, and Culture 3 O  
Cross-cultural perspective on illness, health, medicine, and the body; medical pluralism; biomedicalization; illness and moral reasoning; local and global political economies of health and healing; globalization and medicine. Applied medical anthropology.

ANT 358 Peace, War and Security 3 E  
Anthropology of peace, war and security examining the biological basis for war, archaeology of early warfare, effects of colonial expansion among indigenous peoples and postcolonial society, contemporary peacekeeping, and humanitarian intervention.

ANT 363 Anthropology of Family Life 3 Y  
Crosslisted with: WGS 363  
Historical and cross-cultural study of forms of family and domestic organization, marriage, status and sex roles, ideals, and customs of family life.

ANT 365 Sexual Attraction in Cross-cultural Perspective 3 E  
Sexual attractiveness across cultures. Cultural differences as well as cultural universals.

ANT 367 Gender in a Globalizing World 3 IR  
Crosslisted with: GEO 367, WGS 367  
Economic and cultural processes of globalization as they affect different groups of men, women, and households; including gender and work, development and environmental change, and redefinitions of masculinity and femininity across the globe.

ANT 372 Issues in Intercultural Conflict and Communications 3 IR  
Effects of various cognitive and value orientations on cross-cultural communication, particularly in the Third World. Impact of mass media, proselytization, dissimulation, tourism, and foreign aid on indigenous orientations and on communication.

ANT 373 Magic and Religion 3 S  
Crosscultural study of magical and religious behavior, ritual, and belief systems in simple and complex societies. Specialists and their craft: shamans, priests. Curing, possession, witchcraft. Millennial and counterculture movements. Religious ideologies and innovations.

ANT 376 Folklore 3 SI  
Folklore as a cultural system expressing the value orientations of nonliterate, illiterate, and minority populations. Various genres of folklore (myth, song, art) and the folklore of several specific societies.

ANT 377 Quilts and Community 3 E  
Explores role of quilts and quilting communities. Discussion, films, exploration of quilts and their makers-and communities that result. Class learns quilt making process. No sewing experience required.

ANT 380 International Course 1-6  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

ANT 381 Ancient Rituals and Beliefs in Modern Spain 3 Y  
Offered only in Madrid. From Paleolithic and Neolithic settlements of the Iberian Peninsula to modern immigration into Spain, this course examines the complex layering of ancient belief systems in a modern country, using Spain as a laboratory.

ANT 382 Health in the Middle East 3 IR  
Crosslisted with: HTW 382, MES 382  
Surveys major cultural, biological and environmental features of the Middle East and relates them to aspects of health including infectious disease, chronic disease, reproductive health, population, war, poverty and globalization.

ANT 390 Independent Study 1-6 S  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

ANT 400 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester R

ANT 402 Ethnic History of Britain 3 S  
Crosslisted with: HST 422  
Offered only in London. Examines the ways in which migration has shaped and reworked British national identity over the past two thousand years through the study of original historical sources, literature, film and music, and explores the contributions that migrants have made to modern British society.

ANT 403 Culture, Confucianism and Chinese Modernity 3 Y  
Crosslisted with: HST 443  
Offered only in Beijing. Contemporary China from historical and cultural perspectives. Exploration of political and ideological conflicts between China and the West. Patterns of Chinese culture. Impact of Confucianism on Chinese society and its influence outside of China

ANT 404 Family and Gender in Renaissance Italy 3  
Crosslisted with: HST 404, WGS 404  
Historical and interdisciplinary exploration of life stages, rites of passage, marriage, family, social life, sodomy, prostitution, career options, and alternate life strategies as illustrated by case studies. Offered only in Florence.

ANT 405 Conservation and Management Protected Areas: South Africa-OTS 4 IR  
Crosslisted with: GEO 405  
Taught in South Africa through the Organization for Tropical Studies program. Analyze management of wildlife and natural resources within ecological, political, social, historical, and economic context of South Africa.

ANT 406 History and Culture of South Africa OTS 4  
Taught in South Africa through OTS program. Human history of South Africa. Range of cultural, social aspects of current South African society. Origin and maintenance of cultural diversity of region, archaeological records, early migration patterns.

ANT 407 Environment and Policy in the Tropics OTS 4  
Taught in Costa Rica through OTS program. Issues conservation biology and policy: habitat degradation and fragmentation, design of nature reserves, land-use planning, agro ecosystems, environmental economics, and conservation ethics.

ANT 408 The Practice of Eros: A History of Sexuality in Europe (1400-1800) 3  
Crosslisted with: HST 408, WGS 408  
Authorized and "alternative" sexuality in Europe 15th to 18th centuries (especially Italy, France, and England.) "Licit love" (courtship, marriage, conjugal relations) as opposed to "illicit unions" (adultery, rape, prostitution, bestiality, homosexuality, lesbianism). Offered only in Florence.

ANT 409 A History of Witchcraft 3  
Crosslisted with: HST 409, REL 409, WGS 409  
History of witchcraft from various perspectives: its intellectual roots, the causes and dynamics of the witch-hunt, and the beliefs and self-perceptions of those who were called "witches". Offered only in Florence.

ANT 414 Cities, Spaces and Power 3 O  
Double Numbered with: ANT 614  
Processes of urbanization, migration, adjustments of peasants in cities, ethnic and cultural variation in urban areas. Cultural differences in industrial development. Uses of applied anthropology in urban situations. Sometimes offered abroad.

ANT 415 Culture & Personality 3 IR  
The person-in-culture and the function of culture in personality formation. Cross-cultural problems of child rearing, learning and education, life-cycle patterns, cultural conditioning, normality, and deviance. The individual and cultural milieu.

ANT 416 Political Anthropology 3 IR  
Double Numbered with: ANT 616  
Social power in the global political economy. Co-existence of various emergent and residual social formations such as tribe, peasant, and state. Conflicts over identities in terms of nationality, gender, ethnicity, race and/or class. Additional work required of graduate students.

ANT 417 Economic Anthropology 3 IR  
Survey of primitive modes of production: major adaptive strategies (collecting, hunting, horticulture, and pastoralism), division of labor, and ecological influences impinging on these productive techniques.  
PREREQ: ANT 111.

ANT 421 Gender & Sexuality in South Asia 3 O  
Crosslisted with: SAS 421; Double Numbered with: ANT 621  
Seminar examines gender and sexuality in South Asia through ethnographies and films. Topics explored relating to gender and sexuality include: colonialism; nationalism; development; globalization; kinship; the life cycle; caste and class; religion; same-sex/"third sex" identities. Additional work required of graduate students.

ANT 422 Etruscans and Romans: Ancient Art and Society in Italy 3 Y  
Crosslisted with: HOA 303  
Explores art and society of ancient Italy from ca. 1000 B.C. to A.D. 138, with special emphasis on the early Etruscans through Rome under Hadrian. Requires previous course in art history. Offered only in Florence.  
PREREQ: ANY HOA 100-499.

ANT 424 Negotiation: Theory and Practice 3 Y  
Double Numbered with: ANT 624  
Negotiation skills for resolving differences effectively and achieving mutually satisfying outcomes. Position based versus interest based negotiation. Advanced techniques of communication such as chunking, reframing, anchoring, metaphor and rapport to obtain negotiation outcomes of excellence. Additional work required of graduate students.

ANT 426 Cultures and Politics of Afghanistan and Pakistan 3 E  
Crosslisted with: IRP 426, SAS 426; Double Numbered with: ANT 626  
Introduction to Afghanistan and Pakistan, recent histories, cultures, current politics. Covers geography, religious systems, gender roles, economic systems, foreign policy issues, refugees, migration. Additional work required of graduate students.

ANT 427 Brazil: Anthropological Perspectives 3 IR  
Double Numbered with: ANT 627  
History and culture of Brazil; indigenous populations; Afro-Brazilians; race and ethnic relations; development; kinship; gender; religion; urbanization; politics; nationalism; globalization. Additional work required of graduate students.

ANT 428 Transformation of Eastern Europe 3 IR

Double Numbered with: ANT 629  
Change and continuity after the demise of communism as experienced by ordinary citizens. Transformations in agriculture, industry, social, and political institutions; the rise of ethnic nationalism; and ethnic conflict. Additional work required of graduate students.

ANT 429 Cultures of the Iberian Peninsula 3 Y

Taught in Spanish. A general cultural introduction to the peoples who populated Spain and Portugal. Emphasis on those living in the Iberian peninsula before Roman and Carthaginian settlement and their influence on future generations. Field study tours to archeological and historic sites. Offered only in Madrid.

ANT 431 Human Variation 3 IR

Genetics as applied by anthropologists to humans. Description of the genetic systems most commonly studied. Descriptions of polygenic, polymorphic variations and the methods by which they are gathered.

ANT 433 Human Osteology 3 E

Double Numbered with: ANT 633  
This course is an intensive study of the human skeletal system. The focus is identification of fragmentary skeletal elements and their osseous structure, skills relevant to archaeological and forensic contexts. Laboratory practicum forms the basis.

ANT 434 Anthropology of Death 3 E

Double Numbered with: ANT 634  
Death in anthropological perspective. Survey of the many ways death has entered into the work of archaeologists, biological anthropologists, ethnographers and social theorists.

ANT 436 Bioarchaeology 3 O

Double Numbered with: ANT 636  
Surveys the analysis of human skeletal remains in archaeological and medico-legal settings. Methods and techniques of analysis and interpretation will be emphasized. Case studies will be used to illustrate application to variable social and historical contexts. Additional work required of graduate students.

ANT 442 Methods in Archaeology 3 O

Double Numbered with: ANT 642  
Formulation and conduct of archaeological research with a focus on field and laboratory methods used to obtain and analyze data. Survey techniques, excavation strategies, archaeological classification, and data base management. Additional work required of graduate students.  
PREREQ: ANT 141 OR 145.

ANT 443 Field Methods in Archaeology 6 SS

Supervised training in the excavation of archaeological sites, including analysis, cataloging and accessioning of artifacts. R

ANT 444 Laboratory Analysis in Archaeology 3 E

Double Numbered with: ANT 644  
Introduction to archaeo-logical materials analysis, artifact-classification systems, processing of data, materials analyses (ceramic, lithic, etc.). Conservation and curation of collections. Extra work required of graduate students.  
PREREQ: ANT 141 OR 145.

ANT 445 Public Policy and Archaeology 3 IR

Crosslisted with: NAT 445; Double Numbered with: ANT 645  
Proactive critique of public policy and implementation efforts to preserve and protect archaeological and historical sites and resources. Additional work required of graduate students.

ANT 446 Caribbean Archaeology 3 IR

Double Numbered with: ANT 646  
Caribbean archaeology from the region's early prehistory through the historic period. Cultural diversity, indigenous societies, Hispanic and colonial impacts, and the African Diaspora.

ANT 447 Archaeology of North America 3 IR

Crosslisted with: NAT 447; Double Numbered with: ANT 647  
Introduction to the regional prehistory of North America north of Mexico, from the late Pleistocene until European contact. Adaptation of prehistoric human populations to their ecosystems. Additional work required of graduate students.  
PREREQ: ANT 141 OR 145.

ANT 449 World Heritage Sites 3 E

Double Numbered with: ANT 649  
A seminar exploring global perspectives on UNESCO World Heritage Sites. Review of laws and policies aimed at protecting cultural and natural sites that have been defined as universally significant. Includes evaluation and critique of policies and practices. Additional work required of graduate students.

ANT 450 Undergrad Research Prog 1-6 S R

ANT 452 Anthropology and Public Policy 3 IR

Double Numbered with: ANT 652  
Cultural aspects of the development and implementation of public policy. Emphasizing decision making methodologies and ethnographic studies of the consequences of implemented policies. Additional work required of graduate students.

ANT 453 Poverty/Policy&Humn Svce 3 IR

Double Numbered with: ANT 653  
National programs and local interventions that address poverty related social conditions in Syracuse and Onondaga county. Field study of current policies and practices in government and in health, education, and human services agencies. Additional work required of graduate students.

ANT 455 Culture and AIDS 3 IR

Crosslisted with: WGS 455; Double Numbered with: ANT 655  
Relationship between AIDS and cultures in which it spreads. Cultural practices and sexuality and social effects of widespread AIDS, including healthcare in Asia, Africa, Latin America, and USA. Additional work required of graduate students.

ANT 456 Representations of Indigenous Peoples in Popular Culture 3 IR

Crosslisted with: NAT 456; Double Numbered with: ANT 656  
Contested images used by colonizers and other non-indigenous people to represent Native Americans and other indigenous peoples. How indigenous people represent themselves in a variety of media. Additional work required of graduate students.

ANT 458 Anthropology of Social Change 3 Y

Introduces the basic concepts used by anthropologists to study change. Cultural heterogeneity of people of the Iberian peninsula, used as a means to understand social and cultural change in contemporary Spain and Portugal. Some themes examined include culture contact and acculturation, planned and nondirected change, and role of individual. Offered only in Madrid.

ANT 459 Contemporary Native North American Issues 3 IR

Crosslisted with: NAT 459; Double Numbered with: ANT 659  
Contemporary issues including federal Indian policy, population controls, fishing rights, religious freedom, land disputes, gaming, repatriation, environmental colonialism, and Native American artistic response. Additional work required of graduate students.

ANT 461 Museums and Native Americans 3 IR

Crosslisted with: NAT 461; Double Numbered with: ANT 661

The contested relationships among Native North Americans and museums from earliest contact until the present. Topics include: "salvage" ethnography, collecting practices, exhibition, and recent shifts in power. Additional work required of graduate students.

ANT 462 Culture and Reproductive Health and Medicine 3 IR

Crosslisted with: HTW 462, WGS 462; Double Numbered with: ANT 662

Cultural anthropological approaches to cross-cultural variations in reproductive practices (pregnancy, childbirth, infertility, etc.) Impact of globalization, biomedicalization, international development on reproduction and reproductive health. Medical anthropology and gender studies.

ANT 463 Global Health 3 IR

Crosslisted with: HTW 463; Double Numbered with: ANT 663

Global health in anthropological perspective. Examines how culture affects people's experience and response to morbidity and mortality. Considers topics like gender and health, reproductive health, infectious disease, health and inequality and health and war.

ANT 465 Critical Issues in Medical Anthropology 3 O

Double Numbered with: ANT 665

Illness and healing in ecological and cross-cultural perspectives; strengths and weaknesses of Western and non-Western methods of healing; problems of introducing Western medicine to other cultures. Additional work required of graduate students.

ANT 466 Culture and Sexual Behavior 3 IR

Double Numbered with: ANT 666

Cross-cultural patterns of dating and courtship, sexuality, marriage, fertility, and divorce from biosocial and medical perspectives. Additional work required of graduate students.

ANT 467 Culture and Mental Disorders 3 E

Double Numbered with: ANT 667

Mental disorders viewed as illnesses or social constructions. Cross-cultural variation and universals. Western and non-Western methods of treatment. Additional work required of graduate students.

ANT 468 Middle East in Anthropological Perspective 3 IR

Crosslisted with: IRP 468, MES 468; Double Numbered with: ANT 668

Anthropology of the social, cultural, geographical, and political realities of the Middle East. Additional work required of graduate students.

ANT 469 Medical Anthropology in Ecological Perspective 3 O

Double Numbered with: ANT 669

Interaction of biological and cultural factors in disease causation, diagnosis, and treatment in Western and non-Western societies. Introducing Western medicine to non-Western cultures. Additional work required of graduate students.

ANT 470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination.

Limited to those in good academic standing. R

ANT 471 Religion and Society in Brazil 3-4 IR

Crosslisted with: REL 471

Role of religion in society; religions of Brazil, including Catholicism, liberation theology, afro-religions. Spring break field stay in Rio de Janeiro; methods of study; preparation of research proposal.

ANT 472 Language, Culture, and Society 3 Y

Crosslisted with: LIN 472, WGS 472; Double Numbered with: ANT 672

Cross-cultural survey of the role of language in culture and society, including cognition and language usage along the dimensions of class, gender, race, ethnicity, and social status.

ANT 473 Peace and Conflict in the Balkans: Anthropological Perspectives 3 IR

Double Numbered with: ANT 673

Introduction to Balkan histories, cultures, and societies. Topics include ethnic nationalism, the wars of Yugoslav dissolution, effects of international humanitarian interventions on everyday life, and politics of reconciliation and reconstruction. Additional work required of graduate students.

ANT 474 Culture and Folklore 3 IR

Crosslisted with: WGS 474; Double Numbered with: ANT 674

Ways in which folklore (oral and material traditions, including personal narratives), reflects key cultural ideas such as gender, ethnicity, and history. Analytical methods for examining folk traditions. Additional work required of graduate students.

ANT 475 Culture and Disputing 3 IR  
Double Numbered with: ANT 675

Explores modalities of disputing, dispute resolution, and conflict management in cross-cultural perspective. Decision making in meetings and organizations, negotiation, mediation, intercultural negotiation, and third party interventions. Ethnographic materials are drawn from many cultures. Additional work required of graduate students.

ANT 476 Women, War and Peace 3 E  
Double Numbered with: ANT 676

Examines global politics, war and violence through a gender-sensitive lens. The topics include human trafficking, prostitution, militarization, poverty, nationalism, ethnic conflict, war-rapes, torture, genocide, reconciliation and recovery. Additional work required of graduate students.

ANT 477 Culture and Conflict 3 IR  
Double Numbered with: ANT 677

An overview of conflict in cross-cultural perspective. Covers a variety of approaches to using cultural analysis in the study of conflict and reviews case studies of specific conflicts. Additional work required of graduate students.

ANT 479 Anthropology of Global Transformations 3 IR

Double Numbered with: ANT 679

Impact of global processes, including industrialization, capitalist expansion, transnational migration, environmental change, and international tourism on the daily lives of men and women in Third World contexts. Additional work required of graduate students.

ANT 481 Ethnographic Techniques 3 O  
Double Numbered with: ANT 681

Research methods and techniques in cultural anthropology. Participant observation, interviewing, establishing rapport, research design, recording and analyzing field data, etc.

ANT 482 Life Histories/Narratives 3 IR  
Double Numbered with: ANT 682

Evaluation of personal narratives (fieldwork memoirs, reflexive writings), oral histories and testimonials of respondents, a means of personalizing ethnographic discourse, giving more direct voice to respondents, and increasing multivocality. Issues of reflexivity, subjectivity, authority. Additional work required of graduate students.

ANT 483 Social Movement Theory 3 IR  
Double Numbered with: ANT 683  
Theoretical approaches to analysis of social movements including Marxist and other Utopian traditions of social analysis, rational choice and resource mobilization models, new social movement theory, and Gramscian analysis of power and resistance. Additional work required of graduate students.

ANT 484 Social Movement Research Methods 3 IR  
Double Numbered with: ANT 684  
A range of research methodologies relevant to the study of social movements. Stimulates critical thinking about these methodologies' ethical implications. Students develop proposals for projects carried out the following semester.

ANT 490 Independent Study 1-6 S  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

ANT 494 Underground Railroad 3 SI  
Crosslisted with: AAS 434, HST 434; Double Numbered with: ANT 694  
Myth and history of the Underground in the context of African American freedom efforts. Emphasis on events, personalities, and sites in upstate New York. Student field research and exploration of archival and Internet resources. Additional work required of graduate students.

ANT 495 Research for Distinction in Anthropology 3 S  
Research and background study in preparation to write a capstone 'Distinction' paper. The project will involve significant library and/or field work under faculty supervision. GPA requirement and faculty approvals needed.

ANT 496 Distinction in Anthropology 3 S  
Distinction paper: Advanced research under the supervision of a faculty supervisor. The capstone "Distinction in Anthropology" paper involves significant library and/or field work. GPA requirement and faculty approvals needed.

ANT 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ANT 500 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ANT 523 Globalization and its Discontents in Latin America 3 Y  
Crosslisted with: LAS 523  
Effects of and reactions to globalization and neo-liberal policies in rural communities, including industrialization, rural-urban and international migration and ethnic movements.

ANT 553 Women and Social Change 3 E  
Crosslisted with: WGS 553  
Function of changes in women's roles in sociocultural urbanization, revolution, and modernization. Women in Third World countries compared to women in industrialized countries.

ANT 571 Topics in Sociolinguistics 3 SI  
Crosslisted with: LIN 571, SOC 571  
Functions of language in society. Geographical, socioeconomic, and male-female differentiation. Functions of various types of speech events. Requirements include a research project. R1, 6 credits maximum

ANT 574 Anthropology and Physical Design 3 E  
Interrelationship of social and spatial organization in traditional and modern societies. Nonverbal communication: use of space, territoriality, and impact of physical design on human behavior.

## Arabic

ARB 101 Arabic I 4 Y  
Proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Arabic. Students cannot enroll in ARB 101 after successfully completing ARB 102, 201 or ARB 202 or higher.

ARB 102 Arabic II 4 Y  
Continuing proficiency-based course, which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Arabic. ARB 102 after successfully completing ARB 201, ARB 202 or higher.  
PREREQ: ARB 101.

ARB 201 Arabic III 4 Y  
Continuing proficiency-based course, which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Arabic. Students cannot enroll in ARB 201 after successfully completing ARB 202 or higher.  
PREREQ: ARB 102.

ARB 202 Arabic IV 4 Y  
Continuing proficiency-based course, which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Arabic. Students cannot enroll in ARB 202 after successfully completing a course higher than ARB 202.  
PREREQ: ARB 201.

ARB 290 Independent Study 1-6 IR  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

ARB 301 Arabic V 3 Y  
Continuing proficiency-based Arabic language course which focuses on more advanced levels of proficiency in reading, speaking, writing, and listening.  
PREREQ: ARB 202.

ARB 302 Arabic VI 3 Y  
Continuing proficiency-based Arabic language course which focuses on more advanced levels of proficiency in reading, speaking, writing, and listening.  
PREREQ: ARB 301.

ARB 480 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Astronomy

AST 101 Our Corner of the Universe 4 Y  
Historical and modern understanding of the nature of the solar system. Includes laboratory with observations. May be taken with AST 104 in either order or independently.

AST 104 Stars, Galaxies & Universe 4 Y  
Historical and modern understanding of the nature of the universe beyond the solar system. Includes laboratory with observations. May be taken with AST 101 in either order, or independently.

AST 180 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Biochemistry

BCM 430 Journal Club in Molecular Pharmacology & Structural Biology 1 Y  
Double Numbered with: BCM 630  
Critical evaluation of recent journal articles that focus on molecular pharmacology and/or structural biology. Students make at least one presentation per semester and participate in weekly discussion. Additional work required of graduate students. R1, 2 credits maximum

BCM 460 Research in Biochemistry 1-3 S  
Research carried out under the supervision of a faculty member. R3, 12 credits maximum

BCM 475 Biochemistry I 3 Y  
Double Numbered with: BCM 675  
Structure and function of nucleic acids and proteins. Protein isolation and characterization. Enzyme kinetics, mechanisms, and regulation. Principles and application of thermodynamic concepts to metabolism. DNA replication, transcription, and translation. Students enrolled in 675 will be required to present a special topic lecture or complete a research paper.  
PREREQ: CHE 325.

BCM 476 Biochemistry II 3 Y  
Double Numbered with: BCM 676  
Continuation of Biochemistry I. Mechanisms, integration, and regulation of intermediary, autotrophic, nitrogen, and energy metabolism. Structure, function, and metabolism of carbohydrates, lipids, and proteins. Biogenesis and function of subcellular organelles. Students enrolled in 676 will be required to present a special topic lecture or write a research paper.  
PREREQ: BCM 475.

BCM 477 Preparation and Analysis of Proteins and Nucleic Acids 3 Y  
Crosslisted with: CHE 477; Double Numbered with: BCM 677  
Experimental methods for biologically synthesizing and chemically purifying macromolecules in order to analyze their structure and function, including: polymerase chain reaction; site-directed mutagenesis; Protein expression and purification; nucleic acid and protein electrophoresis. Additional work required of graduate students.  
PREREQ: BIO 305 AND (BIO 326 OR 575 OR CHE 474).

BCM 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

BCM 484 Biomolecular Modeling 3 E  
Double Numbered with: BCM 684  
Experience in biomolecular modeling of proteins, nucleic acids, and drug candidates as practiced in biochemical research and technology. Connections with structural and physical principles will be emphasized. Additional work required of graduate students.  
PREREQ: CHE 474.

BCM 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Biology

BIO 105 Technology: Inspired by Nature-Learning from the Natural World 3 IR  
Investigations into how human technology has been and can be inspired by nature. Research process; production of novel adhesives, building materials, fabrics; solar power, biofuels, aerodynamics, computer design, artificial intelligence, and robotics.

BIO 115 Ecological Problems and Society 3 IR  
Current and anticipated ecological problems of societal importance and the basic scientific principles required for informed understanding and assessment of these issues by the non-scientist.

BIO 121 General Biology I 4 Y  
First course in a survey of biological concepts ranging from the molecular level to global ecology. Units include the nature of science, life chemistry, cell structure and function, photosynthesis and respiration, genetics, and evolution.

BIO 123 General Biology II 3 Y  
Second course in a survey of major biological concepts ranging from the molecular level to global ecology. Units include biodiversity, plant structure and function, human and comparative animal anatomy and function, ecology, and evolution.

BIO 124 General Biology II Laboratory 1 Y  
Laboratory course associated with BIO 123. Includes inquiry-based exploration and practical application of concepts discussed in BIO 123. One laboratory session per week. Includes inquiry-based exploration and practical application of concepts discussed in BIO 123.  
COREQ: BIO 123.

BIO 180 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

BIO 200 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

BIO 211 Introduction to Neuroscience 3 Y  
Crosslisted with: NEU 211  
Foundations of neurobiology beginning with cellular neurobiology, moving on to integrative systems and ending with higher brain functions. Emphasizes understanding of nervous system operation. Lectures, discussion and demonstrations.

BIO 216 Anatomy & Physiology I 4 Y  
Lecture and laboratory course relating form and function. Structure and function of tissues, bones, joints, muscle, nervous system, and special senses. Biology majors may not receive credit toward the major. Credit cannot be given to for BIO 216 after successfully completing BIO 316.  
PREREQ: BIO 121 AND 123 AND 124.

BIO 217 Anatomy and Physiology II 4 Y  
Lecture and laboratory course, continuation of BIO 216, relating form and function. Structure and function of urinary, digestive, endocrine, reproductive, and cardiovascular systems. Biology majors may not receive credit toward the major. Credit cannot be given for BIO 217 after successfully completing BIO 317.  
PREREQ: BIO 121 AND 123 AND 124.

BIO 220 Biology Abroad 1-6 SI  
Examination of specific biological problems offered in, or with a specific focus on, a particular international setting. Combination of lectures and appropriate laboratory and field exercises. R

**BIO 305 Integrative Biology Laboratory 3 Y**

Provides students with early laboratory experience, presenting a quantitative, integrated view of subcellular, cellular, developmental, organismal, and ecosystem/environmental perspectives on biology.  
PREREQ: BIO 121 AND (BIO 326 OR 327 OR 345).

**BIO 307 South African Ecosystems and Diversity OTS 4 IR**  
Taught in South Africa through OTS program. Field and classroom instruction, integrated analysis of diversity of South Africa's ecosystems based on sources in geology, climatology, ecosystem ecology, co-evolution of plants and animals; roles of humans.

**BIO 310 Evolutionary Biology, Religion & Society 3 Y**  
This seminar format course will examine evolutionary biology and its intersection with society. Topics of discussion will include evolution and philosophy, history, medicine, environmental issues, politics, education and religion.

**BIO 311 Fundamentals of Tropical Biology-Costa Rica OTS 4 IR**  
Taught in Costa Rica through OTS program. Integrates classroom and field instruction; fundamental principle of tropical biology; the natural history of important plants, animals; major conceptual problems guiding basic ecological research in tropical habitats.

**BIO 312 Marine Ecology of the Mediterranean Sea and North Africa 3 SI**  
Offered only in Madrid. Marine ecosystems and their components and how they behave alone and in interaction. Observe and analyze conservation issues such as problems resulting from excessive use of resources, including renewable and non-renewable natural resources and the deterioration and loss of both.

**BIO 313 Marine Ecology Laboratory 1 S**  
Hands-on study of the Neritic Biome in the Canary Islands.  
COREQ: BIO 312.

**BIO 316 Anatomy and Physiology I for Biology Majors 4 Y**  
Lecture and laboratory course relating form and function. Structure and function of tissues, bones, joints, muscle, nervous system, and special senses. Credit cannot be given for BIO 316 after successful completion of BIO 216.  
PREREQ: BIO 121.

**BIO 317 Anatomy and Physiology II for Biology Majors 4 Y**  
Lecture and laboratory course, relating form and function. Structure and function of urinary, digestive, endocrine, reproductive, and cardiovascular systems. Credit cannot be given for BIO 317 after successful completion of BIO 217.  
PREREQ: BIO 121.

**BIO 326 Genetics 3 Y**  
Principles of inheritance, structure and synthesis of nucleic acids and proteins, basic enzymology, microbial genetics, recombinant DNA technology and introduction to genomics.  
PREREQ: BIO 121 AND CHE 106 OR CHE 109 OR CHE 150.

**BIO 327 Cell Biology 3 Y**  
Cell structure, molecular biology of eukaryotic cells, cytoskeletal organization and function, cell division cycle, membrane structure and function, cell-cell interactions, cell differentiation and regulation.  
PREREQ: BIO 121 AND CHE 106 OR CHE 109 OR CHE 150.

**BIO 345 Ecology and Evolution 3 Y**  
Survey of modern topics in ecology and evolutionary biology. Evolution, phylogenetics, animal behavior, population ecology, community ecology and ecosystems  
PREREQ: BIO 121.

**BIO 355 General Physiology 3 S**  
Physiology of systems of higher animals and plants, including circulation, regulation of body fluids, nervous system, muscle, sensory systems, and photosynthesis.  
PREREQ: BIO 121 AND (CHE 106 OR CHE 109 OR CHE 150).

**BIO 360 Biology Laboratory Assistant 1 S**  
Students who have completed BIO 425, 435, 445 or 455 may receive one credit hour for assisting in the teaching of these laboratories. This opportunity is especially appropriate for students considering teaching careers. Invitation of instructor. R1, 2 credits maximum

**BIO 396 Stem Cells and Society 3 IR**  
Crosslisted with: PHI 396, REL 359  
The science of stem cells and the philosophical, religious and legal complexities surrounding the research and use of stem cell technologies.

**BIO 400 Selected Topics 1-3 SI**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. \* R

**BIO 405 Introduction to Field Biology Laboratory 4 IR**  
Scientific methods and design. Intensive field research conducted during spring break at the Archbold Biological Station in Florida. Design, implement, analyze own research projects. Travel to ecosystems discussed in lecture.  
PREREQ: BIO 121.

**BIO 406 Field Research in Savanna Ecology-OTS 4 SI**  
Taught in South Africa through OTS program. Research design, field methods, basic data analysis in context of South African ecosystems.

**BIO 407 Advanced Neuroscience 3 Y**  
Crosslisted with: NEU 407; Double Numbered with: BIO 607  
Detailed analysis of the anatomy, physiology, and chemistry of the nervous system and behaviors that it mediates. Topics include: neurons and electrochemical properties of neurons, sensory and motor systems, homeostasis, sleep, consciousness, learning, and memory. Additional work required of graduate students.  
PREREQ: BIO 211 OR PSY 223.

**BIO 409 General Microbiology 4 Y**  
Micro-organisms and life processes. Microbial world. Microorganisms and human disease. Microorganisms and the environment. Lecture and laboratory.  
PREREQ: BIO 326 AND 327.

**BIO 412 Research Methods in Tropical Biology-OTS 4 SI**  
Taught in Costa Rica through OTS program. Research design, field methods, basic data analysis in a tropic context. Hypothesis testing and statistical analysis. Design, implement, and analyze own field projects.

**BIO 415 Conservation Biology 3 Y**  
Double Numbered with: BIO 615  
Considered from the standpoint of modern molecular, genetic, and population biology. Biodiversity, minimum viable populations, reserve design, genetic variation, applications of recombinant DNA technology, ex situ, care and ecosystem reconstruction. Additional work required of graduate students.  
PREREQ: BIO 345.

**BIO 417 Animal Behavior and Evolutionary Biology Laboratory 3 Y**  
Focuses on understanding the process of natural selection, with an emphasis on the evolution of adaptive animal behavior. Planned lab and field exercises, independent research projects. Suitable for junior and senior biology majors.  
COREQ: BIO 345.

**BIO 419 Junior and Senior Thesis Seminar 1 S**

Discussion of research activities of major interest to the participants. Open only to students admitted to the upper-division biology honors program. May be taken for credit up to four times. R3, 4 credits maximum

**BIO 421 Seminar in Biology 3 S**

Junior/ senior level elective provides students the opportunity to read and analyze one area of the primary biological literature in depth. Analysis will take the form of papers, seminar presentations, and discussion of material presented during seminars.

**BIO 422 Bioinformatics for Life Scientists 3 Y**

Bioinformatics and how to apply it to biological research. As a lab course emphasis will be on the hands-on use of bioinformatics tools to solve relevant biological problems. PREREQ: BIO 326.

**BIO 425 Cell and Developmental Biology Laboratory 3 Y**

Survey of current methods employed in cell and developmental biology, including microscopy and imaging techniques, spatial analysis of gene expression, protein expression and localization, cell fractionation, and immunocytochemistry. Review general laboratory methods, data analysis, reporting. PREREQ: BIO 326 AND 327.

**BIO 428 Capstone Seminar in Environmental Science 3 Y**

Crosslisted with: EAR 428

Seminar for students following the environmental science curriculum. Students will work together to critically evaluate, and propose solutions to, current environmental problems using a combination of reading, class discussion, written analyses, and oral presentations.

**BIO 431 Population Genetics 3 SI**

Double Numbered with: BIO 631

Models of population growth, Hardy-Weinburg equilibrium, X-linkage and two loci, subdivision, inbreeding and finite populations, quantitative characters, selection, migration, mutation, the fundamental theorem, stochastic processes, and requisite mathematics. Computer programming is part of the laboratory requirement. Additional work required of graduate students. PREREQ: BIO 345 AND (MAT 285 OR 295).

**BIO 435 Genetics Laboratory 3 Y**

Students will gain experience in genetic methods and analyses using various model organisms, such as budding yeast, fruit flies, nematodes, and mustard plants. Experiments will include gene mapping, phenotypic analysis, transformation, complementation, and an introduction to molecular biology. PREREQ: BIO 326.

**BIO 447 Basic Immunology 3 Y**

Natural and adaptive humoral and cellular immunity. Immunoglobulin structure, generation of diversity, isotopes. Antigen recognition and processing. Complement pathways. Immune quantitation. Leucocyte differentiation. Interleukins. T-cell receptor structures and generation of diversity. Major histocompatibility complex proteins. PREREQ: BIO 326 AND 327.

**BIO 448 Evolutionary Medicine 3 Y**

Application of evolutionary principles to prevention and treatment of human disease. Evolution of antibiotic resistance, epidemiology, virulence, population genetics, germ theory of disease, aging, human evolution. Lectures and discussion. PREREQ: BIO 121; COREQ: BIO 345.

**BIO 451 Ecology 3 E**

Double Numbered with: BIO 651

Integrated approach to animals and plants in their natural environments; evolutionary ecology and the ecology of populations, communities, and ecosystems. Aspects of applied ecology: pollution and human population growth. Additional work required of graduate students. PREREQ: BIO 345.

**BIO 453 Ecology Laboratory 2 E**

Combines field trips to natural locations in upstate New York with laboratory studies to show how organisms interact with each other and their natural surroundings. Animal and plant ecology. PREREQ: BIO 345.

**BIO 454 Evolution 3 IR**

Origins and theory; genetics and mechanisms; speciation and phylogeny; rates and trends, including molecular and macro evolution. PREREQ: BIO 345.

**BIO 457 Principles of Human Toxicology 3 Y**

Crosslisted with: FSC 457; Double Numbered with: BIO 657

This course examines key aspects of human toxicology, including dose-response relationships, absorption, distribution, biotransformation, elimination, toxicokinetics, molecular mechanisms of toxicity, pesticides, metals, and toxic responses in specific organ systems. Additional work required of graduate students. PREREQ: BIO 327 AND CHE 275 AND MAT 285.

**BIO 460 Research in Biology 1-4 S**

Laboratory or field research under direct supervision of biology department faculty. Projects incorporate use of the scientific method, experimentation, data analysis, presentation and interpretation, and the responsibilities of scientific integrity. R

**BIO 461 Experience in Biology 0 S**

Internship or work experience supervised by a faculty mentor. Projects may include experimentation, data analysis, presentation, and responsibilities of scientific integrity. Development and analysis of business plans or intellectual property in biotechnology focused companies, agencies or law firms is also possible. R5

**BIO 462 Molecular Genetics 3 Y**

Double Numbered with: BIO 662

An introduction to gene and genome functions, mechanisms of gene regulation, epigenetics and the molecular basis of human disease. An emphasis will be placed on genomic, transcriptomic and epigenomics systems level approaches to these topics. Additional work required of graduate students. PREREQ: BIO 326 AND 327.

**BIO 463 Molecular Biotechnology 4 Y**

Double Numbered with: BIO 663

Introduction to the molecular and genetic principles and processes involved in biotechnology. Labs will cover many of the methods routinely used in biotechnology labs. Additional work required of graduate students. PREREQ: BIO 326 AND 327.

**BIO 464 Applied Biotechnology 4 Y**

Double Numbered with: BIO 664

Introduction to the scientific background necessary for applying tools of biotechnology for improvement of animal and human health, agriculture and environment. Labs will cover methods used in biotech industry and academia. Additional work required of graduate students. PREREQ: BIO 326 AND 327.

BIO 465 Molecular Biology Laboratory 3 S

Double Numbered with: BIO 665

Basic experimental techniques: isolation of DNA, restriction endonuclease cleavage of DNA, cloning of DNA, isolation of clones from DNA libraries, in vitro mutagenesis and other techniques to manipulate nucleic acids. Additional work required of graduate students. PREREQ: BIO 326 AND 327.

BIO 475 Biochemistry Laboratory 4 Y

Double Numbered with: BIO 675

Experiments on amino acids, proteins, enzymes, fatty acids and nucleic acids, illustrating modern biochemical techniques applied to the chemistry of living cells. Titrations; electrophoresis; gel filtration; kinetics; spectrophotometric assays; cellular fractionation and analysis. Additional work required of graduate students.

PREREQ: BIO 326 AND 327; COREQ: BCM 475.

BIO 495 Distinction Thesis in Biology 1-3 S

For students preparing a thesis in partial fulfillment of the requirements for the Distinction in Biology Program. It normally will be taken by Distinction students in the semester prior to graduation.

BIO 496 Neuroscience and Society 3 Y

Crosslisted with: PSY 496

Capstone course offered by the College of Arts & Sciences for the Integrated Neuroscience major. Learn how to translate your knowledge in neuroscience from laboratory bench to neurological patients' bedside and help problems in society. Permission of instructor. PREREQ: BIO 211 OR PSY 223.

BIO 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

BIO 501 Biology of Cancer 3 Y

Classifications and model systems in cancer. Oncogenes; viral and chemical oncogenesis. Growth control, genetic and epigenetic changes, progression, invasion, metastasis, and tumor immunobiology. Cancer biochemistry, host-tumor interactions, chemotherapy, immunotherapy, and host-response modification. PREREQ: BIO 326 AND 327.

BIO 503 Developmental Biology 3 Y

Regulation of form and differentiation in eucaryotic organisms. Control of development at the molecular, cellular, and organismal levels. Experimental approaches to provide an understanding of developmental processes. PREREQ: BIO 326 AND 327.

BIO 565 Cellular Physiology 3 Y

A lecture course on basic problems of cell function, including energetics, membrane transport, contractility, and properties of excitable membranes.

PREREQ: BIO 326 AND 327.

## College Of Arts And Sciences

CAS101 First Year Forum 1 S

An introduction to the University in small discussion sections. Required of all first semester Arts and Sciences students. Diverse topics. Relevant reading and writing with discussions led by College of Arts and Sciences faculty members.

CAS102 Summer Start Seminar 1 Y

Critical thinking, leadership, study, and time management skills; high school to college transition issues; academic policies and university resources.

CAS133 Introduction to the History of Architecture I 3 IR

Crosslisted with: ARC 133

Themes, concepts, and problems in architectural history from ancient Egypt to 1500. Required for architecture majors.

CAS134 Introduction to the History of Architecture II 3 IR

Crosslisted with: ARC 134

Themes, concepts, and problems in architectural history from 1500 to the present. Required for architecture majors.

CAS180 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

CAS201 Transfer Forum 1 S

Introduction to the University in small discussion sections for students transferring into Syracuse University in Arts and Sciences. Diverse topics. Relevant reading, writing with discussions

CAS280 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

CAS311 Living in a Global Environment 3 Y

Analysis of practical and theoretical components in living and interacting with people of different countries and cultures.

CAS411 Living in a Global Environment 1 Y

Double Numbered with: CAS 611

Analysis of practical and theoretical components in living and interacting with people of different countries and cultures. Additional work required of graduate students.

## Chemistry

CHE 103 Chemistry in the Modern World 3 Y

Basic concepts and principles of chemistry. Applications of chemistry to problems in the modern world. Will not satisfy prerequisite requirements for advanced courses in chemistry. (First in a sequence, to be followed by CHE 113.)

CHE 106 General Chemistry Lecture I 3 Y

Fundamental principles and laws underlying chemical action, states of matter, atomic and molecular structure, chemical bonding, stoichiometry, properties of solutions, chemical equilibria, and introductory thermochemistry. Credit is given for CHE 106 or 109 or CHE 150 but not more than one of these.

CHE 107 General Chemistry Laboratory I 1 Y

Experimental study of basic principles and techniques of chemistry. States of matter, determination of formulas and molecular weights, simple volumetric and gravimetric analysis, heats of reaction. Equilibrium, rates of reactions, and qualitative analysis. Credit is given for CHE 107 or 129 or CHE 151 but not more than one of these. COREQ: CHE 106 OR 109.

CHE 109 General Chemistry Lecture I (Honors and Majors) 3 Y

General chemistry for students in the Honors Program, chemistry majors, and others with strong science interests. Quantitative, physical, and inorganic chemistry; applications in current research. Credit is given for CHE 106 or 109 or 150, but not more than one of these.

CHE 113 Forensic Science 4 Y

Introduction to forensic science with focus upon the application of scientific methods and techniques to criminal justice and law. Methods specifically relevant to crime detection and analysis will be presented. Laboratory included.

CHE 116 General Chemistry Lecture II 3 Y

Builds upon the fundamental chemical principles learned in CHE 106 and introduces chemical kinetics and thermodynamics, intermolecular forces, advanced chemical equilibria, oxidation/reduction, and modern materials. Credit is given for CHE 116 or 119, but not both.

PREREQ: CHE 106 OR 109 OR AP CHEM EXAM SCORE MIN 5.

CHE 117 General Chemistry Laboratory II 1 Y

Noncovalent chemistry, understanding symmetry and chirality, empirical and rational aspects of thermodynamics of dissolving salts equilibrium of buffers and solubility and redox potentials, separation and identification of metal cations. Credit given for CHE 117 or 139 but not both.

PREREQ: CHE 107 OR 129 OR AP CHEM EXAM SCORE MIN 5; COREQ: CHE 116 OR 119 OR AP CHEM EXAM SCORE MIN 5.

CHE 119 General Chemistry Lecture II (Honors and Majors) 3 Y

For students in the Honors Program, chemistry majors and others with strong science interests. Builds upon the fundamental chemical principles learned in CHE 109. Credit is given for CHE 116 or 119, but not both.

PREREQ: CHE 106 OR 109 OR AP CHEM EXAM SCORE MIN 5.

CHE 129 General Chemistry Laboratory I (Honors and Majors) 1 Y

For Honors, Chemistry majors and others with strong science interests. Introduction to chemical laboratory techniques. Application of modern chemical apparatus and experiments relevant to environmental chemistry. Credit is given for CHE 107 or CHE 129, but not both.

COREQ: CHE 106 OR 109 OR AP CHEM EXAM SCORE MIN 5.

CHE 139 General Chemistry Laboratory II (Honors and Majors) 1 Y

Introduction to basic and advanced chemical laboratory techniques. Preparation for individual research. Idea development and proposal design. Data analysis and oral presentation skills. Credit is given for CHE 117 or CHE 139, but not both.

PREREQ: CHE 107 OR 129 OR AP CHEM EXAM SCORE MIN 5; COREQ: CHE 116 OR 119 OR AP CHEM EXAM SCORE MIN 5.

CHE 150 General Chemistry for Engineers 3 Y

Designed for engineering students needing only a single semester of chemistry. Focus on fundamental principles and laws underlying states of matter, nomenclature, periodicity, chemical reactions, stoichiometry, equilibrium, thermodynamics, materials properties and electrochemistry. Prepares students for the common section of the NCEES Fundamentals of Engineering exam. Credit is given for CHE 150 or CHE 106 or CHE 109, but not more than one of these.

CHE 151 General Chemistry for Engineers Laboratory 1 Y

Focus on scientific measurement, chemical reactions, thermodynamics, materials properties, and electrochemistry. Prepares students for the common section of the NCEES Fundamentals of Engineering exam. Lab course for engineering students enrolled in CHE 150. Credit can be given for CHE 151 or CHE 107 or CHE 129, but not more than one of these.

COREQ: CHE 150.

CHE 275 Organic Chemistry I 3 Y

Chemistry of carbon compounds, their nomenclature, structure, stereochemistry, and properties. Introduction to organic reactions and mechanisms.

PREREQ: CHE 116 OR 119 OR AP CHEM EXAM SCORE MIN 5.

CHE 276 Organic Chemistry I Laboratory 2 Y

Laboratory to accompany CHE 275. Experiments illustrate modern laboratory techniques in organic chemistry, with an emphasis on basic separations, purifications, and analysis of experimental data. Introduction to organic synthesis.

PREREQ: CHE 117 OR 139 OR AP CHEM EXAM SCORE MIN 5; COREQ: CHE 275.

CHE 280 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

CHE 290 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

CHE 325 Organic Chemistry II 3 Y

Continuation of CHE 275. Emphasis on reaction and mechanism in organic chemistry, multi-step synthesis, and structural analysis.

PREREQ: CHE 275.

CHE 326 Organic Chemistry II Laboratory 2 Y

Laboratory to accompany CHE 325. Further development of organic laboratory skills and techniques. Experiments illustrate principles of organic reactions and structure determination.

PREREQ: CHE 276; COREQ: CHE 325.

CHE 335 Chemical and Biochemical Analysis with Laboratory 4 Y

Lecture and laboratory on the theory of quantitative analysis and instrumental techniques and their application to the investigation of chemical and biochemical problems.

PREREQ: (CHE 116 OR 119 OR AP CHEM EXAM SCORE MIN 5) AND (CHE 117 OR 139 OR AP CHEM EXAM SCORE MIN 5).

CHE 346 Physical Chemistry 3 Y

Properties of gases, liquids, and solids. Elementary thermodynamics and chemical applications. Chemical and phase equilibrium. Laws of solutions.

PREREQ: (CHE 116 OR CHE 119 OR AP CHEM EXAM SCORE MIN 5) AND (MAT 286 OR MAT 296); COREQ: PHY 212.

CHE 347 Physical-Analytical Chem Lab 2 Y

Foundation of experimental techniques in physical and analytical chemistry. Introduction to instrument design, simple electronics, and error analysis. Construction of a pH meter, computer simulation of Maxwell distribution, and additional experiments focusing on basic concepts.

PREREQ: CHE 275 AND 276; COREQ: CHE 346.

CHE 356 Physical Chemistry 3 Y

Electrochemistry. Introduction to quantum mechanics, molecular structure spectra. Basic statistical mechanics. Chemical kinetics and structure of condensed phases.

PREREQ: CHE 346.

CHE 357 Physical Chemistry Laboratory 2 Y

Reinforcement of basic principles taught in CHE 347 by completion of well-selected, modern physical chemistry experiments.

PREREQ: CHE 347; COREQ: CHE 356.

CHE 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

CHE 411 Inorganic Chemistry 3 Y  
Double Numbered with: CHE 611  
Descriptive and structural inorganic chemistry and underlying principles.  
PREREQ: CHE 116 OR 119 OR AP CHEM EXAM SCORE MIN 5.

CHE 412 Metals in Medicine 3 Y  
Double Numbered with: CHE 612  
Bonding, stereochemistry, and properties of metallo-drugs and diagnostic agents. Topics include platinum compounds for treating cancer, gadolinium and technetium in biomedical imaging, and porphyrins in photo-dynamic therapy. Additional work required of graduate students.  
PREREQ: CHE 474.

CHE 414 Introduction to Medicinal Chemistry 3 Y  
Double Numbered with: CHE 614  
The fundamental principles of medicinal chemistry focusing on design and synthesis of pharmaceuticals. Structural elucidation, and physical-chemical properties of pharmaceutical drug candidates will be presented. Additional work required of graduate students.  
PREREQ: CHE 325.

CHE 422 Inorganic Laboratory Technique 1 Y  
Double Numbered with: CHE 622  
Basic experimental techniques used in inorganic chemistry.  
PREREQ: CHE 411.

CHE 425 Crystallography 3 E  
Double Numbered with: CHE 625  
Modern methods of structure determination using x-ray crystallography. Symmetry and space groups will be developed, the mathematical foundation of practical crystallography. Model structures will be determined. Additional work required of graduate students.

CHE 427 Organic Chemistry of Biological Molecules 3 Y  
Double Numbered with: CHE 627  
Structure, reactivity, synthesis and biosynthesis of compounds constituting the building blocks of biological macromolecules. The role of biological molecules as templates for stereoselective organic synthesis to introduce advanced topics in stereochemistry, spectroscopy and mechanistic analysis of complex organic reactions.  
PREREQ: CHE 325.

CHE 436 Advanced Physical Chemistry 3 Y  
Double Numbered with: CHE 636  
Applications of thermodynamics and quantum mechanics to chemical bonding, molecular properties, chemical kinetics, structure of matter, spectroscopy.  
PREREQ: CHE 356.

CHE 444 Forensic Chemical Analysis 4 Y  
Crosslisted with: FSC 444  
Lecture content, delivered online, and laboratory on analytical methods of forensic chemistry. Underlying theory and direct experience in various chemical tests and spectroscopic methods. Additional work required of graduate students.  
PREREQ: (CHE 116 OR 119 OR AP CHEM EXAM SCORE MIN 5) AND (CHE 117 OR 139 OR AP CHEM EXAM SCORE MIN 5).

CHE 450 Introduction to Chemical Research 1-4 S  
Research problem carried out under the supervision of a faculty member. R1, 8 credits maximum

CHE 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

CHE 474 Structural and Physical Biochemistry 3 Y  
Double Numbered with: CHE 674  
Thermodynamics, kinetics, and bonding associated with biological molecules. The course also utilizes computerbased molecular modeling tools for analyzing the structures of drugs, proteins, and nucleic acids. Additional work required of graduate students.  
PREREQ: CHE 325.

CHE 477 Preparation and Analysis of Proteins and Nucleic Acids 3 Y  
Crosslisted with: BCM 477; Double Numbered with: CHE 677  
Experimental methods for biologically synthesizing and chemically purifying macromolecules in order to analyze their structure and function, including: polymerase chain reaction; site-directed mutagenesis; Protein expression and purification; nucleic acid and protein electrophoresis. Additional work required of graduate students.  
PREREQ: CHE 474 OR BIO 326 OR BIO 575.

CHE 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

CHE 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

CHE 546 Molecular Spectroscopy and Structure 1-9 Y  
For the nonspecialist. Three topics each semester, chosen from the list below. Students may register for one, two, or three modules. 546M Atomic Spectroscopy and Angular Momentum 1; 546M Laser Chemistry and Spectroscopy 1; 546M Symmetry and Group Theory 1; 546M Electronic Spectroscopy 1; 546M Nuclear Magnetic Resonance Spectroscopy 1; 546M Vibrational Spectroscopy 1; 546M Laser Applications of Molecular Spectroscopy 1  
PREREQ: CHE 356. R5, 12 credits maximum

CHE 575 Organic Spectroscopy 3 Y  
Use of mass spectrometry and infrared, ultraviolet-visible, and nuclear magnetic resonance spectroscopy.  
PREREQ: CHE 325.

## Chinese

CHI 101 Chinese I 4 Y  
Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Chinese. No prior experience or admission by placement testing. Students cannot enroll in CHI 101 after successfully completing CHI 102, CHI 201, or CHI 202 or higher.

CHI 102 Chinese II 4 Y  
Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Chinese. Students cannot enroll in CHI 102 after successfully completing CHI 201, CHI 202 or higher.  
PREREQ: CHI 101.

CHI 201 Chinese III 4 Y  
Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Chinese. Students cannot enroll in CHI 201 after successfully completing CHI 202 or higher.  
PREREQ: CHI 102.

#### CHI 202 Chinese IV 4 Y

Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a bases for the expression and interpretation of meaning. Conducted in Chinese. Students cannot enroll in CHI 202 after successfully completing a course higher than CHI 202. PREREQ: CHI 201.

#### CHI 301 Chinese V 3 Y

Fifth in the sequence of continuing proficiency-based courses that refine and expand previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Chinese. PREREQ: CHI 202.

#### CHI 302 Chinese VI 3 Y

Sixth in the sequence of continuing proficiency-based courses that refine and expand previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Chinese. PREREQ: CHI 301.

#### CHI 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### Classics

#### CLA 421 Classical Mythology 3

Crosslisted with: LIT 421, REL 421  
Myths and rituals of Greek mythology and religion. Ancient poets/playwrights and important mythological themes found in later Western religious/artistic traditions. Offered only in Florence.

### Cognitive Science

#### COG 100 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

#### COG 200 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

#### COG 301 Introduction to Cognitive Science 3 Y

Crosslisted with: NEU 301  
Concepts and methods in the study and explanation of cognition. Knowledge that underlies such abilities as vision, language use, and problem solving. How it is represented and used. Comparison of methods in different disciplines studying cognition.

#### COG 490 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

### Communication Sciences And Disorders

#### CSD 212 Introduction to Communication Sciences and Disorders 3 S

Application of biology, physics, anatomy, physiology, and cognitive psychology to processes of speech, language, and hearing. Nature of disruptions to normal communication and scientific principles of prevention, diagnosis, and remediation. Cannot receive credit for both CSD 212 and CSD 303.

#### CSD 303 Communication in the Classroom 3 Y

Survey of development of oral communication and disorders that may interfere with effective communication and affect school performance. Emphasis upon collaboration between teachers and speech/language pathologists in describing and facilitating children's communication.

#### CSD 315 Anatomy and Physiology of the Speech and Hearing Mechanisms 3 Y

Double Numbered with: CSD 615  
Structure and function of the skeletal, neurological, and muscular systems involved in breathing, phonation, resonance, articulation, and hearing. Additional work is required of graduate students. PREREQ: CSD 212.

#### CSD 316 Introduction to Applied Phonetics 3 Y

Double Numbered with: CSD 616  
Anatomical structures and processes involved in speech production. Phonetic transcription of speech of adults, normally developing children, and children with speech disorders. Acoustic phonetics, phonology, and dialects.

#### CSD 325 Fundamentals of Hearing Sciences 3 Y

Introductory anatomy, physiology, and function of the normal auditory system. Introduction to the physics of sound and psychoacoustic principles. PREREQ: CSD 212.

#### CSD 345 Speech Science 3 Y

Double Numbered with: CSD 645  
Scientific principles involved in normal speech production across all speech subsystems. Properties of the acoustic waveform, including acoustic phonetics for vowels and consonants. Basic speech instrumentation used to measure respiratory, phonatory, velopharyngeal/nasal, and pharyngeal/oral components. Theories of speech perception. Additional work required of graduate students. PREREQ: CSD 212.

#### CSD 409 Cognitive Neuroscience of Speech and Language 3 Y

Crosslisted with: NEU 409; Double Numbered with: CSD 609  
Neuroanatomical and neurophysiological aspects of speech and language. Role of central and peripheral nervous system in normal speech and language activities. Additional work required of graduate students.

#### CSD 422 Development of Speech and Language 3 Y

Double Numbered with: CSD 622  
Theories and research on children's acquisition of communication, syntax, semantics, pragmatics, morphology, and phonology. Relationships between oral and written language skills in comprehension and production processing; individual differences; cognitive, social, biological, familial, and cultural influences. Additional work required of graduate students.

#### CSD 425 Stuttering 3 Y

Double Numbered with: CSD 625  
Theories of onset, development, and maintenance of disfluent speech; differentiation of normal vs. stuttered disfluencies; approaches to assessment and intervention across age range, settings, and severity levels; familial considerations, counseling, and environmental modifications; individualizing intervention. Additional work required of graduate students. PREREQ: CSD 316 AND 422.

#### CSD 427 Articulation Disorders 3 Y

Double Numbered with: CSD 627  
Overview of normal articulation and development. Characteristics and description of articulation disorders. Incidence, etiology, related factors. Differences versus disorders. Principles of assessment, types of diagnostic instruments. Elements involved in therapy, various approaches to remediation. Additional work required of graduate students. PREREQ: CSD 316.

CSD 429 Basic Clinical Audiology 3 Y  
Double Numbered with: CSD 629  
Fundamentals of psychophysics of audition, anatomy, and physiology of the auditory mechanism. Disorders of hearing. Pure tone and speech audiometry. Differential diagnosis. Special procedures for children. Public school audiometry. Auditory rehabilitation. Additional work required of graduate students.

CSD 435 Aural Rehabilitation 3 Y  
Double Numbered with: CSD 635  
Study of the management of children and adults with hearing impairments, with emphasis on the development and maintenance of functional communication through amplification, auditory training, speechreading, manual communication, and speech and language intervention. Additional work required of graduate students.

CSD 436 Cultural and Linguistic Issues in Communication Sciences and Disorders 3 Y  
Double Numbered with: CSD 636  
Communication Sciences and Disorders 3  
Discussion of linguistic and cultural variation and comparisons of language acquisition and child socialization across cultures. The assessment and treatment of communication disorders in individuals from culturally and linguistically diverse groups. Additional work required of graduate students.

CSD 439 Technology and Rehabilitation for Hearing Loss 3 IR  
Double Numbered with: CSD 639  
Cochlear implants, hearing aids and other assistive devices and technologies used for intervention in adults and children with hearing loss. Approaches to aural rehabilitation. Additional work required of graduate students.  
PREREQ: CSD 325 AND 429.

CSD 446 Augmentative and Alternative Communication Systems 3 SS  
Double Numbered with: CSD 646  
Philosophical, theoretical, and practical issues in enhancing communication for individuals with severe disabilities. Assistive technologies, identification and evaluation of systems to meet needs of children and adults. Teaching system use in family, school, community settings. Additional work required of graduate students.

CSD 449 Early Assessment and Intervention with Hearing-Impaired Children 3 IR  
Double Numbered with: CSD 649  
Development of auditory system; review of diagnosis of childhood hearing impairment; counseling parents of hearing-impaired children; language development of the hearing-impaired; amplification and cochlear implants. Additional work required of graduate students. Additional work required of graduate students.  
PREREQ: CSD 429.

CSD 450 Clinical/Classroom Practicum 1 S  
Supervised practicum in clinic, hospital, early intervention, or school setting. Includes planning, staffing, implementation, modification, and outcomes assessment of evaluation and intervention procedures with clients and their families; professional issues addressed in regular seminar meetings. Permission of instructor.  
PREREQ: CSD 422; COREQ: CSD 451. R14, 15 credits maximum

CSD 451 Clinical Methods in Speech-Language Pathology 3 Y  
Double Numbered with: CSD 651  
Introduces beginning clinicians to the therapeutic process; professional expectations, the diagnosis process, general therapy considerations, therapy intervention techniques, evidence-based practice, and evaluation of the intervention process. Additional work required of graduate students.  
PREREQ: CSD 422.

CSD 477 Speech-Language Pathology in School Settings 3 Y  
Double Numbered with: CSD 677  
Historical, legislative, administrative aspects of speech-language pathology school programming. Services delivery models; classroom management; collaborative assessment; and teaching, adapting, and implementing IEPs; social, cultural, linguistic, family, and community factors; rights and responsibilities in programming. Additional work required of graduate students.  
PREREQ: CSD 451.

CSD 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## World Language Program : Danish

DAN 180 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. 1, 12 credits maximum

## Earth Sciences

EAR 104 Introductory Geology Lab 1 S  
Laboratory course designed for students who took EAR 105 but who need credit for a laboratory course. Equivalent to the lab portion of EAR 101; credit will not be given for both EAR 101 and 104.  
PREREQ: EAR 105.

EAR 105 Earth Science 3 S  
Scientific study of our planet, its history, and the processes that shape it and affect humans. Emphasis includes tectonics, continental surfaces, and climate. Lecture and recitation, no laboratory; no prerequisite. Intended for non-majors. Students may receive credit for either EAR 110 (formerly EAR 101) or 105 but not both.

EAR 106 Geohazards & Natural Disasters 3 Y  
Investigation of Earth processes that create geohazards, such as earthquakes, volcanic eruptions, floods, climate change, and environmental contamination, and how specific research can inform policy and decision-making to mitigate their impact on humans.

EAR 110 Dynamic Earth 4 S  
Chemical, physical, and biological processes and principles affecting the history and development of the Earth. Lectures, laboratory, and field trips. Students may not receive credit for both EAR 110 (formerly EAR 101) and 105.

EAR 111 Climate Change Past and Present 3 Y  
Introduction to the science of climate change from the geological record of the last century. Major drivers of global climate, measuring change, and forecasting future climate. Role of human activities in present climate.

EAR 117 Oceanography 3 S  
A comprehensive introduction to the geology, physics, chemistry, and biology of the world ocean and its impact on global climate and environmental concerns.

EAR 203 Earth System Science 4 Y  
An integrated view of interactions among Earth's systems (lithosphere, biosphere, hydrosphere, atmosphere) and the timescales over which they operate. Topics covered in this course include: plate tectonics, atmospheric circulation, oceanic circulation, the greenhouse effect, the carbon cycle, the origin of the earth and life, and climate.

EAR 205 Water and Our Environment 3 Y  
Investigates origin, occurrence, chemistry and hydrology of water on earth. Includes climate change, contamination and water supply issues within context of water sustainability.

EAR 210 History of Earth and Life 3 Y  
Major transitions in the surface environments of our planet and the life that occupies them over the last 4.5 billion years. Evolutionary radiations, mass extinctions, climate change, plate tectonics, mountain building. Lectures, labs, field trip.  
PREREQ: EAR 101 OR 110 OR 203 OR (EAR 104 AND 105).

EAR 225 Volcanoes and Earthquakes 3 S  
Examination of the geologic nature of volcanoes and earthquakes as they are related to plate tectonic activity in the Earth. Discussion of related societal hazards.

EAR 300 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EAR 305 Earth Science of Energy 3 Y  
Science of energy in the 21st century, from an Earth Science perspective: Climatology of wind/solar energy; Hydrocarbons-conventional/unconventional resources; Geothermal power; Geology of Uranium; Oceanography of tidal power; Hydroelectric power; Ocean/Lake Source Cooling.  
PREREQ: EAR 110 OR EAR 105 OR EAR 106 OR EAR 111 OR EAR 117 OR EAR 203.

EAR 309 Honor Tutorial Geology 1-6 S  
Selected topics under guidance of senior staff members. Open only to students in the Honors Program.

EAR 311 Introduction to Geophysical Methods 3 SI  
An introduction to the study of the Earth's near surface using geophysical methods and quantitative data analysis, specifically: seismic reflection and refraction, gravity, magnetic, electrical and electromagnetic methods. Participation in geophysical field survey is required.

EAR 314 Mineralogy 4 Y  
Introduction to the distribution of minerals within the Earth, mineral properties (crystallography, crystal chemistry and structure), and the processes that form them. Methods used to identify minerals in hand specimens and an introduction to the techniques of optical mineralogy. Lecture, laboratory and fieldtrips.  
PREREQ: EAR 110 OR 203 OR (EAR 104 AND 105); COREQ: CHE 106 AND 107.

EAR 317 Sedimentary Processes and Systems 4 Y  
Ancient sedimentary rocks and their modern analogs. Physical and chemical aspects of sedimentation and diagenesis. Lecture, laboratory, and field trips.  
PREREQ: EAR 101 OR 110 OR 203 OR (EAR 104 AND 105).

EAR 325 Introduction to Paleobiology 4 Y  
Patterns and processes of evolution as expressed in the fossil record. Macroevolution, diversification of major skeletonized phyla, evolutionary paleoecology, and mass extinctions. Lecture, laboratory, and field trips.  
PREREQ: EAR 102 OR 210 OR BIO 345 OR EFB 311 OR EFB 320.

EAR 333 Structural Geology 4 Y  
Concepts of structural analysis of rocks, stress and strain, rock deformation mechanisms, geologic structures, their properties, and how they are formed. Three lectures and one laboratory a week, field trips including some weekends.  
PREREQ: EAR 110 OR 203 OR (EAR 104 AND 105); COREQ: EAR 314.

EAR 401 Hydrogeology 3 Y  
Double Numbered with: EAR 601  
Fundamentals of groundwater hydraulics. Aquifer flow systems analysis and evaluation. Groundwater-surfacewater relationships. Groundwater chemistry. Additional work required of graduate students.  
PREREQ: EAR 101 OR 110 OR 203 OR (EAR 104 AND 105).

EAR 402 Numerical Methods in Geosciences 3 E  
Double Numbered with: EAR 602  
Numerical methods and data analysis in geosciences using MATLAB. Topics will include basic statistics for univariate and bivariate datasets including linear regression and interpolation, time-series analysis, the discrete Fourier transform, numerical integration and finite differences. Additional work required of graduate students.  
PREREQ: EAR 110 OR EAR 105 OR EAR 203; COREQ: MAT 285 OR MAT 295.

EAR 403 Geomorphology 3 Y  
Double Numbered with: EAR 603  
Landscape formation and evolution as a function of hydrogeologic, glacial, eolian, and tectonic processes acting on Earth materials. Lecture, labs, and field trips, including some weekends. Additional work required of graduate students.  
PREREQ: EAR 101 OR 110 OR 203 OR (EAR 104 AND 105).

EAR 404 Advanced Structural Geology 3 SI  
Double Numbered with: EAR 604  
Selected topics in structural geology and tectonics focusing on the mechanics and kinematics of lithospheric deformation. Fundamentals of stress, strain, brittle and ductile deformation, microstructures and rheology. Additional work required of graduate students  
PREREQ: EAR 314 AND 333.

EAR 405 Global Change:Geologic Record 3 Y  
Double Numbered with: EAR 605  
The geologic record provides perspective for evaluating future global change. This course will focus on the evolution of climate through Earth's 4.6 billion years and how this record is preserved in ancient rocks and sediments.  
PREREQ: EAR 101 OR 110 OR 203 OR (EAR 104 AND 105).

EAR 406 Reflection Seismology: Theory and Practice 3 SI  
Double Numbered with: EAR 606  
Students will develop a working understanding of the strengths and pitfalls of the method through classroom lectures, exercises, and hands-on data processing using PROMAX seismic processing software. Prerequisites: coursework/experience in geophysics/permission of instructor. Additional work required of graduate students.

EAR 407 Climate Change and Human Origins 3 Y  
Double Numbered with: EAR 607  
This course considers the influence of long term climate changes on hominid evolution and human adaptation, as well as how abrupt climate events and transitions may have impacted the distribution of human populations, the development of agriculture, human conflict and societal change.

EAR 409 Senior Thesis in Earth Science 3-6 SI  
Independent, hypothesis-driven research involving investigative tools and techniques in the Earth Sciences. Students must submit a written thesis to the department and give a public seminar.

EAR 410 Applications of GIS in the Earth Sciences 3 Y

Double Numbered with: EAR 610

Introduction to some of the many uses of image and topographic data within a geographic information system (GIS) to extract information relevant to the study of the Earth. Additional work required of graduate students.

EAR 417 Geochemistry 3 Y

Double Numbered with: EAR 617

Chemistry of Earth processes, including basic thermodynamics, solution chemistry, isotopic chemistry, and kinetics; magmatic crystallization, isotope fractionation, formation of carbonate and evaporitic sediment, ion exchange in clays, and Cosmochemistry.

COREQ: EAR 314 AND CHE 107.

EAR 418 Petrology 4 SI

Double Numbered with: EAR 618

Introduction to the origin of igneous, metamorphic, and sedimentary rocks. Classifications, compositions, tectonic setting, and processes governing the distribution of rocks within the Earth. Lecture, laboratory, and fieldtrips. Additional work required of graduate students.

PREREQ: EAR 314.

EAR 419 Environmental Aqueous

Geochemistry 3 Y

Double Numbered with: EAR 619

Fundamentals of aqueous geochemistry in ground water and surface water in the context of carbonate and silicate dissolution, reactions governing metal oxidation and reduction, mixing of waters and isotopic characterization. One year of college chemistry required. Additional work required of graduate students.

EAR 420 Contaminant Hydrogeology 3 Y

Double Numbered with: EAR 620

Fundamentals of solute transport, major classes of groundwater contamination, remediation strategies, natural attenuation characterization, fingerprinting of contaminant types. Additional work required of graduate students.

PREREQ: CHE 106 AND (PHY 211 OR EAR 401).

EAR 428 Capstone Seminar in

Environmental Science 3 Y

Crosslisted with: BIO 428

Seminar for students following the environmental science curriculum. Students will work together to critically evaluate, and propose solutions to, current environmental problems using a combination of reading, class discussion, written analyses, and oral presentations.

EAR 429 Topics in Paleobiology 3 SI

Double Numbered with: EAR 629

Current research in paleobiology with a topical focus. Subjects might include macroevolution, evolutionary paleoecology, extinctions and radiations, stratigraphic paleontology, etc. Additional work required of graduate students.

PREREQ: EAR 325. R2, 9 credits maximum

EAR 430 Topics in Thermochronology & Tectonics 2 SI

Double Numbered with: EAR 630

Seminar will focus on research topics in thermochronology and tectonics from current literature. Additional work required of graduate students. R3, 8 credits maximum

EAR 431 Plate Tectonics 3 SI

Double Numbered with: EAR 631

Tectonic development of the Earth; definition of plates, their boundaries, motions, and driving forces. Analysis and modeling of plate motions. Additional work required of graduate students.

PREREQ: EAR 314 AND 333.

EAR 432 Seafloor Spreading and Oceanic Lithosphere 3 SI

Double Numbered with: EAR 632

An investigation of the products and processes of seafloor spreading from the perspective of geological and geophysical studies of mid-ocean ridge spreading centers, oceanic lithosphere and ophiolite complexes.

Additional work required of graduate students.

PREREQ: EAR 314 AND 333.

EAR 433 Topics in Active Tectonics 2 SI

Double Numbered with: EAR 633

The use of modern methods to study tectonic processes along active plate margins, focusing on the evolution of topography expressed in orogen and basin development, including the style and accommodation of crustal and mantle deformation. Additional work required of graduate students

PREREQ: EAR 333 OR 431. R2, 6 credits maximum

EAR 435 Geophysics 3 SI

Double Numbered with: EAR 635

Fundamental geophysical parameters; seismology and Earth structure; gravity and magnetic fields with application of potential theory; terrestrial rotation and shape; heat flow, thermal state, and evolution of the Earth. Additional work required of graduate students.

PREREQ: MAT 296 AND PHY 212.

EAR 443 Advanced Topics in

Geomorphology 3 E

Double Numbered with: EAR 643

This course presents selected papers from the literature that contribute to current thought in geomorphology and later focus on a topic that can vary from year to year. Additional work required of graduate students.

PREREQ: EAR 403. R1, 6 credits maximum

EAR 444 Thermochronology 3 SI

Double Numbered with: EAR 644

Methods used in Earth Sciences to determine temperature-time histories of crustal terranes including  $^{40}\text{Ar}/^{39}\text{Ar}$ , fission track, and U-Th/He techniques. Diffusion theory and applications of thermochronology to tectonics and landscape evolution, P-T-t paths of crustal terranes. Additional work required of graduate students.

EAR 455 Geochemical Patterns in the

History of Earth and Life 3 O

Double Numbered with: EAR 655

Insights gained from the geochemistry of fossils and sedimentary sequences into the history of the Earth's surface. Emphasis on relationships between the biological world and the physical environment as revealed through stable and radiogenic isotopes and elemental chemistry. Additional work required of graduate students.

PREREQ: EAR 325 AND 417.

EAR 470 Experience Credit 1-6 SI

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

EAR 478 Isotope Geology 3 SI

Double Numbered with: EAR 678

Isotope geochemistry is used in all branches of Earth Sciences. This course covers the following topics: Radioactive decay, Rb-Sr, Sm-Nd, and Lu-Hf isotope geochemistry; U-Pb geochronology,  $^{14}\text{C}$  dating; O, H, and C isotope geochemistry. Additional work required of graduate students.

PREREQ: EAR 417.

EAR 483 Departmental Colloquium 1 S

Double Numbered with: EAR 683

Students attend the Department of Earth Sciences colloquium lectures and write up summaries of a subset of talks. Provides exposure to current research in a wide array of Earth Science disciplines. Additional work required of graduate students. R2, 3 credits maximum

EAR 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

EAR 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

EAR 510 Paleolimnology 3 IR  
The records of environmental change contained within lake sediments. Basic background in limnology followed by field/laboratory research projects and presentations. Upper division undergraduate science majors.

EAR 544 Quaternary Environmental and Climate Change 3 SI  
Proxy records from marine, lacustrine, glacial, and terrestrial environments for climate and environmental change during the Quaternary. Comparison with numerical models of atmosphere and oceans. Discussion of current literature and the potential for future global change.

EAR 590 Independent Study 1-3 SI  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

## Economics

ECN 101 Introductory Microeconomics 3 IR  
Introduction to microeconomics. Consumer demand, theory of production, markets and prices, social welfare, and related topics. Credit is given for either ECN 101, 102 or ECN 203.

ECN 102 Introductory Macroeconomics 3 IR  
Introduction to concepts and methods of economic analysis. Emphasis on such macroeconomic topics as gross domestic product, unemployment, money, and theory of national income. Credit is given for either ECN 101, 102 or ECN 203.

ECN 203 Economic Ideas and Issues 3 S  
Foundation of modern Western economic thought. The model economists have built on this foundation as applied to current issues facing individuals and society. Credit is given for either ECN 203 or ECN 101, 102 or ECN 109.

ECN 258 Poverty and Discrimination in America 3 IR  
Crosslisted with: WGS 258  
Nature and causes of inequality, poverty, and discrimination in rural and urban America. Income maintenance, employment, training, education, and other antipoverty programs; antidiscrimination and equal opportunity policies. Students may not receive credit for both ECN/WGS 258 and ECN/WGS 358.

ECN 270 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

ECN 290 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ECN 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
PREREQ: (ECN 101 AND 102) OR 203. R

ECN 301 Intermediate Microeconomics 3 S  
Concepts and tools for the analysis of the behavior of consumers and firms, consumption decisions, market structures, and general equilibrium. Pricing, production, purchasing, and employment policies. Both ECN 301 and 311 cannot be counted toward the major/minor. Credit cannot be given for ECN 301 after completing ECN 311. Quantitative skills requirements of liberal arts core recommended.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 302 Intermediate Macroeconomics 3 S  
National product and income concepts, measurements, and relationships; interrelationships of the major segments of the national economy; forces affecting the general level of economic activity. Quantitative skills requirements of liberal arts core recommended.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 304 The Economics of Social Issues 3 Y  
Application of tools developed in introductory economics to current issues facing society including, but not limited to: crime, education, farm policy, alcohol/tobacco/drugs, the environment, health care, poverty/inequality, immigration and discrimination.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 305 Economics of Personal Finance 3 Y  
This introductory course applies fundamental economic and financial concepts qualitatively to cover aspects of consumer personal finance, including record keeping, banking, saving, borrowing, using credit, investing, insurance, doing taxes, retirement, and end-of-life considerations. Students may not receive credit for both ECN 305 and FIN 378.  
PREREQ: ECN 203.

ECN 310 Special Topics In Economics 3 IR  
Various special topics of economic issues offered as available.  
PREREQ: (ECN 101 AND 102) OR 203. R

ECN 311 Intermediate Mathematical Microeconomics 3 Y  
Covers the same topics as covered in ECN 301, but the presentation is more mathematical than ECN 301. Both ECN 301 and 311 cannot be counted towards the major/minor. Credit cannot be given for ECN 301 after completing ECN 311.  
PREREQ: ((ECN 101 AND 102)) OR ECN 203) AND (MAT 284 OR 285 OR 295 OR 296).

ECN 312 Behavioral Economics 3 Y  
Offered only in London. Examines and revises assumptions underlying standard economic theories and models to develop a fuller understanding of human behavior, increase their explanatory power, and enable more accurate predictions from such theories  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 313 The Economics of Happiness 3 Y  
Offered only in Strasbourg. Economic matters and their evolution since WWII, examining critical issues such as quality of life, sustainable development, and measures of economic performance; how factors such as income, unemployment, inflation and inequality affect societal and personal happiness.  
PREREQ: (ECN 101 AND 102) OR 109 OR 203.

ECN 325 Economics and Gender 3 IR  
Crosslisted with: WGS 325  
Economic issues examined within a gender sensitive context. Includes the economics of family, the economics of marriage, and labor market discrimination and segregation.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 355 Economics of Health and Medical Care 3 IR

Application of economics concepts to the study of health care, especially the U.S. system. Topics include the nature of the commodity health care; health production functions; markets; financing; behavior of providers; public policy; reform proposals. PREREQ: (ECN 101 AND 102) OR 203.

ECN 358 Economics of US Poverty and Discrimination 3 IR

Crosslisted with: WGS 358

Economic analysis of inequality, poverty, and discrimination, as applied to USA. Income maintenance, employment, training, education, and other antipoverty programs; antidiscrimination and equal opportunity policies. Students may not receive credit for both ECN/WGS 258 and ECN/WGS 358. PREREQ: (ECN 101 AND 102) OR 203.

ECN 361 Economics of European Integration 3

Origins and history of European Union integration, integration of trade, financial and monetary policies, the Euro, and EU external trade relations. Offered regularly through SU Abroad. PREREQ: (ECN 101 AND 102) OR 203.

ECN 362 Globalization Development and Environment 3 S

Crosslisted with: PSC 462

Offered only in London. Differing perspectives on changing global economy and nature of modern state. Key ideas regarding development through experiences of developing countries in Asia and Africa.

ECN 363 Economic Development of China 3 S

Offered only in Hong Kong. Examines the economic development of China since 1949, including impact of such policies as the Great Leap Forward, the Cultural Revolution, Deng's Open Door commitment, and current strategies. PREREQ: (ECN 101 AND 102) OR 203.

ECN 364 International Economic Relations 3 S

Offered only in Hong Kong. Economic links binding countries and similar political entities. Topics include development of global trade regime, impacts of globalization, dynamics of financial crisis, rise of transnational corporations. PREREQ: (ECN 101 AND 102) OR 203.

ECN 365 The World Economy 3 S

Non-technical introduction to analysis of international economic issues. Protectionism, the multinational firm, the debt crisis, international macroeconomic policy coordination, and European integration. May not be used to satisfy the economics major upper-division elective requirement. PREREQ: (ECN 101 AND 102) OR 203.

ECN 366 Economic Policies of the European Union 3 S

Crosslisted with: INB 366

Offered only in Strasbourg. European economy, with central focus on economic principles underlying decisions to create and extend scope of European Community and on economic policies EU has followed since creation. PREREQ: (ECN 101 AND 102) OR 203.

ECN 373 Industrial Organization & Policy 3 IR

Analysis of structure, conduct, and performance of industry. Experience with antitrust laws and trade regulations. Case studies of specific industries. PREREQ: (ECN 101 AND 102) OR 203.

ECN 390 Independent Study 1-6

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. PREREQ: (ECN 101 AND 102) OR 203. R

ECN 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ECN 410 Topics in Economic Applications 3 IR

Various topics in economic policy and applications. PREREQ: (ECN 301 OR 311) AND 302. R

ECN 421 Game Theory and Economic Strategy 3 Y

A choice by one economic agent typically affects other economic agents. This course teaches concepts useful in predicting how agents behave in such strategic situations. The focus is on applications in economics and other areas. PREREQ: (ECN 301 OR 311) AND (MAT 284 OR 285 OR 295 OR 296).

ECN 422 Introduction to Statistics and Econometrics 3 Y

Basic theory and application of probability, statistical inference, and regression analysis for economics majors. Designed to expose the student to the statistical techniques economists use in estimating, testing, and forecasting economic relationships. PREREQ: (ECN 301 OR 311) AND ECN 302.

ECN 431 Public Economics 3 Y

Theory of the public sector. Government expenditures, revenue, and debt. Intergovernmental fiscal relations. Government contributions to stabilization and growth. Interaction of public and private sectors. PREREQ: ECN 301 OR 311.

ECN 435 State and Local Public Finance 3 IR

Economic analysis of state and local government structures. Description and equity-efficiency-yield implications of state and local government tax systems. Determinants and consequences of state and local government expenditures. Fiscal federalism. PREREQ: ECN 301 OR 311.

ECN 437 Environmental and Resource Economics 3 Y

Optimal use of exhaustible and renewable resources and pollution. Examines energy sources, environmental amenities and water. Pollution control policies examined include emissions taxes, tradable permits, direct regulation, subsidies, and negotiation. Valuing environmental quality and other non-marketed goods; risk assessment, hedonic pricing and contingent valuation. PREREQ: ECN 301 OR 311.

ECN 441 Urban Economics 3 Y

Theoretical and empirical analyses of growth, structure, and resource allocation in urban regions. Selected urban problems: housing and housing finance; poverty; transportation neighborhood degradation; and financing local public services. PREREQ: ECN 301 OR 311.

ECN 443 Real Estate Economics and Finance 3 Y

Analysis of real estate markets & real estate finance. Consideration of land and mortgage markets; public policies; house price movements. Analysis of mortgage instruments; payment streams, mortgage contracts and risk between lenders and borrowers. PREREQ: ECN 301 OR 311.

ECN 451 Labor Economics 3 Y  
Contemporary theories and issues of public policy concerning labor supply and demand, wage determination, disincentive effects of public transfer payments (e.g. welfare), unemployment, human capital, and unions.  
PREREQ: ECN 301 OR 311.

ECN 465 International Trade Theory and Policy 3 Y  
Economic causes and consequences of international trade. Models of trade, gains from trade, tariffs and other controls on trade, and international institutions guiding the trading systems.  
PREREQ: ECN 301 OR 311.

ECN 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

ECN 481 Introduction Money & Banking 3 Y  
Financial instruments and structure: commercial banking organization, operation and control of the banking system. Federal Reserve System. Monetary policy and economic stability.  
PREREQ: ECN 302.

ECN 487 Economic Growth 3 Y  
The study of economic growth: models, their applications, and empirical evidence across different countries. Emphasis placed on understanding recent advances in the area: particularly, those pertaining to the nexus between growth and labor market.  
PREREQ: ECN 301 OR 311.

ECN 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ECN 495 Distinction Thesis Seminar in Economics I 3 Y  
First semester in a year-long course for economics undergraduate thesis students who are oriented to professional economics research and guided as they define their thesis projects. Senior economic students only. Permission from Instructor.

ECN 496 Distinction Thesis Seminar in Economics II 3 Y  
Second semester in a year-long course for economics undergraduate thesis students who will present ongoing research, constructively engage the work of other thesis writers, and work in cooperation with a faculty mentor to complete research. Senior economic students only. Permission from Instructor.

ECN 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ECN 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ECN 505 Mathematical Economics 3 Y  
Introduction to use of basic mathematical techniques in economic analysis.  
PREREQ: (ECN 301 OR 311) AND (MAT 284 OR 285 OR 286 OR 295 OR 296).

ECN 510 Special Topics in Economics 3 IR  
Various special topics of economics issues offered as available.  
PREREQ: ECN 301 OR 311. R5, 18 credits maximum

ECN 521 Economic Statistics 3 S  
Statistical methods applied to economics. Conventional descriptive statistics, conceptual and measurement problems peculiar to economics. Analytical statistics, including time-series analysis, elementary theory of probability and statistical inference, correlation and regression analysis. Nonparametric methods. This course is not suitable for students who have taken six credits of statistics to fulfill their quantitative skills requirement. Quantitative skill requirements of liberal arts core is recommended.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 522 Econometric Methods 3 Y  
Statistical procedures. Problems of estimating parameters in regression models of economic behavior.  
PREREQ: ECN 521 AND (ECN 301 OR 311).

ECN 525 Economics and Gender 3 Y  
Crosslisted with: WGS 525  
Offered only in Strasbourg. European economy, with central focus on economic principles underlying decisions to create and extend scope of European Community and on economic policies EU has followed since creation.

ECN 566 International Macroeconomics and Finance 3 Y  
Monetary, fiscal, and regulatory consequences of mushrooming international financial markets including equities, bonds and other securities, commodity and options contracts, and bank deposits and loans.  
PREREQ: ECN 302.

ECN 580 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

### English As A Second Language

ENL 201 Intermediate English for Non-native Speakers 3 Y  
First of a two-semester, integrated-skills course preparing students to participate in academic contexts. Students review fundamental and more advanced grammar structures through a variety of activities that involve speaking, listening, reading, and writing.  
PREREQ: REQUIRED PLACEMENT EXAM SCORE.

ENL 202 Intermediate English for Non-native Speakers 3  
Second of a two-semester integrated skills course preparing students to participate in academic contexts. Students review fundamental and more advanced grammar structures through a variety of activities that involve speaking, listening, reading, and writing.  
PREREQ: ENL 201 OR REQUIRED PLACEMENT EXAM SCORE.

ENL 203 Speaking and Listening for Non-native Speakers of English 3 S  
Speaking/listening focused on academic and social situations. Intensive work on note-taking and the sounds, stress, rhythm, and intonation of English, practiced in group work and presentations. Can be taken with any other ENL course.  
PREREQ: REQUIRED PLACEMENT EXAM SCORE.

ENL 205 Intensive Intermediate English for Non-Native Speakers 6 Y  
A combination ENL 201/202 that focuses on the practical application of grammatical concepts in reading, writing, and speaking English. Credit cannot be given for ENL 205 if credit is given for ENL 201 or ENL 202. English Language Assessment Exam recommendation required.  
PREREQ: REQUIRED PLACEMENT EXAM SCORE.

ENL 207 Advanced Integrated Skills for Non-native Speakers of English 3 S  
An integrated skills course focusing on academic writing and reading. Emphasizing paragraph organization and development, complex sentence structures, reading skills, and vocabulary.  
PREREQ: ENL 202 OR 205 OR REQUIRED PLACEMENT EXAM SCORE.

ENL 211 Composition for Non-native Speakers of English 3 S  
Expository writing and reading. Students develop an awareness of the cultural and discourse expectations in written English, through reading and responding to articles on a variety of topics and writing essays of increasing complexity.  
PREREQ: ENL 207 OR REQUIRED PLACEMENT EXAM SCORE.

ENL 213 Advanced Academic Writing and Research for Non-native Speakers of English 3 S  
Development of critical reading and thinking skills used in scholarly research in a variety of disciplines. Students learn to summarize, synthesize, critique, and document, and use library resources effectively.  
PREREQ: ENL 211 OR REQUIRED PLACEMENT EXAM SCORE.

ENL 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### English And Textual Studies

ETS107 Living Writers 3 S  
Introduction to visiting writers and their work. Lectures and small group sections emphasize dynamic and plastic nature of writing. Opportunity to question the authors directly on content, influences, and technique.

ETS113 Survey of British Literature, Beginnings to 1789 3 Y  
British literature before 1789.

ETS114 Survey of British Literature, 1789 to Present 3 Y  
British literature since 1789.

ETS115 Topics in British Literary History 3 Y  
Literary and cultural texts from Great Britain and the Commonwealth studied in the context of British history, culture, and politics. Readings may be focused by historical or thematic issues. R2, 9 credits maximum

ETS117 Survey of American Literature, Beginnings to 1865 3 Y  
American writing before 1865, mainly from the English-speaking colonies and the United States.

ETS118 Survey of American Literature, 1865 to Present 3 Y  
American writing since 1865, mainly from the United States.

ETS119 Topics in U.S. Literary History 3 Y  
United States literary and cultural texts studied in the context of American history, culture, and politics. Readings may be focused by historical periods or thematic issues. R2, 9 credits maximum

ETS121 Introduction to Shakespeare 3 Y  
Selected plays of Shakespeare read in conjunction with performances on video and CD-ROM.

ETS122 Introduction to the Novel 3 Y  
Critical study of the history and development of the novel as literary form. Selected British, American, and postcolonial novels from the 18th century to the present.

ETS142 Narratives of Culture: Introduction to Issues of Critical Reading 3 IR  
Exploration of complexities of contemporary reading and interpretation of varied texts of culture. Concepts such as authorship, the book, readers, textuality, and contexts.

ETS145 Reading Popular Culture 3 S  
Semiotic analysis of American culture and its artifacts. Topics of analysis may include consumerism, advertising, film, music, TV, video, language, gender/race/class, mythic characters, cultural outlaws, virtual culture.

ETS146 Reading Screen Culture 3 Y  
Critical analysis and historical study of new and emergent forms of screen-based texts.

ETS151 Interpretation of Poetry 3 S  
Critical study of poetry from various historical periods. Formal, theoretical, and interpretive issues.

ETS152 Interpretation of Drama 3 Y  
Critical study of drama from various historical periods. Formal, theoretical, and interpretive issues.

ETS153 Interpretation of Fiction 3 S  
Critical study of fiction from more than one historical period. Formal, theoretical, and interpretive issues.

ETS154 Interpretation of Film 3 S  
Critical study of film from various historical periods. Formal, theoretical, and interpretive issues.

ETS155 Interpretation of Nonfiction 3 Y  
Critical study of nonfiction from more than one historical period and geographic locale. Formal, theoretical, and interpretive issues.

ETS181 Class and Literary Texts 3 Y  
Construction and representation of "class," especially as it affects the production and reception of literary and other cultural texts.

ETS182 Race and Literary Texts 3 Y  
Construction and representation of "race," especially as it affects the production and reception of literary and other cultural texts.

ETS184 Ethnicity and Literary Texts 3 Y  
Ethnicity in literary and theoretical texts. Emphasizing conceptual paradigms, social issues, and aesthetic considerations in the practice of reading texts from ethnically differentiated literary traditions.

ETS192 Gender and Literary Texts 3 Y  
Crosslisted with: WGS 192  
Construction and representation of "gender," especially as it affects the production and reception of literary and other cultural texts.

ETS200 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ETS215 Introductory Poetry Workshop 3 S  
Practice in writing poetry.

ETS217 Introductory Fiction Workshop 3 S  
Practice in writing fiction.

ETS230 Topics in Ethnic Literary Traditions 3 IR  
Studies in an ethnic literary tradition such as Latino, Irish, or Judaic literature. R2, 9 credits maximum

ETS235 Classics of World Literature I 3 IR  
Readings from ancient Mesopotamia, Egypt, China, India, Greece, Israel, Rome, and Arabia investigate notions of literary merit, and their social, religious, and political ramifications in relations to historical context (ca. 2500 BCE-1000 CE).

ETS236 Classics of World Literature II 3 IR  
Readings from great women writers of Japan and from Dante, Cervantes, and Shakespeare; and from world oral and written traditions that investigate notions of literary merit and their ramifications in historical context (ca. 1000 CE-present).

ETS242 Reading and Interpretation 3 S  
Introduction to questions of textuality and representation, making use of some theoretical material. Multiple ways of reading, with some emphasis on techniques of close textual analysis.

ETS270 Experience Credit 1-6 SI  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

ETS290 Independent Study 1-6 SI  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ETS301 Practicum in Reading and Writing Prose 3 IR  
Creative and critical engagement with the practices of reading and writing prose. Emphasis on both analytical and creative work.

ETS303 Practicum in Reading and Writing Fiction 3 Y  
Creative and critical engagement with the practices of reading and writing fiction. Emphasis on both analytical and creative work.

ETS304 Practicum in Reading and Writing Poetry 3 Y  
Creative and critical engagement with the practices of reading and writing poetry. Emphasis on both analytical and creative work.

ETS305 Topics in Critical Analysis 3 S  
Objects, methods, and theories of one or more modes of critical reading.  
PREREQ: ETS 242. R2, 9 credits maximum

ETS310 Topics in Literary Periods 3 Y  
Chronological periods or movements in literary history; issues of periodization. R2, 9 credits maximum

ETS320 Topics in Authors 3 Y  
One or more authors studied in relation to literary, social, and/or biographical history. R2, 9 credits maximum

ETS325 History and Varieties of English 3 Y  
Issues in the history and heterogeneity of the English language.

ETS330 Topics in Theorizing Meaning and Interpretation 3 IR  
Modes of theorizing textual and cultural interpretation. R2, 9 credits maximum

ETS340 Topics in Theorizing Forms and Genres 3 Y  
Literary forms and genres and their features. R2, 9 credits maximum

ETS345 Critical Theory 3 IR  
Advanced survey of contemporary theories of cultural and literary analysis.

ETS350 Topics in Reading Nation and Empire 3 IR  
National cultures, imperialism, and resistance. R2, 9 credits maximum

ETS355 The Politics of the English Language 3 IR  
How culture embeds and enacts attitudes toward language: emergence of "standard" English, world Englishes and globalization, English-Only movement, gender and language, Ebonics, political correctness.

ETS360 Topics in Reading Gender and Sexualities 3 Y  
Crosslisted with: WGS 360  
Textual, cultural, and/or historical constructions of gender and sexualities. R2, 9 credits maximum

ETS401 Advanced Writing Workshop: Poetry 3 S  
Extensive practice in writing poetry. R1, 6 credits maximum

ETS403 Advanced Writing Workshop: Fiction 3 S  
Extensive practice in writing fiction, particularly the short story. R1, 6 credits maximum

ETS405 Topics in Medicine and Culture 3 IR  
Special topics in medicine and culture. Topics will vary.

ETS410 Topics in Forms and Genres 3 Y  
A literary genre studied in a particular historical period. R2, 9 credits maximum

ETS420 Topics in Cultural Production and Reception 3 IR  
Historical study of how the production and reception of cultural texts influence their interpretation. R2, 9 credits maximum

ETS425 Topics in Historical Modes of Inquiry 3 IR  
Thematic, critical or methodological issues in the historical study of texts. R2, 9 credits maximum

ETS426 Topics in Literature, Culture, and Social Change 3 IR  
Thematic, critical, or methodological issues in the historical study of texts. May be repeated for credit when topics vary. R2, 9 credits maximum

ETS430 Topics in Theorizing Representation 3 IR  
Theories, modes, and effects of representation. R2, 9 credits maximum

ETS440 Topics in Theorizing History and Culture 3 IR  
One or more theories of history, historicity, and culture. R2, 9 credits maximum

ETS444 Topics in Theoretical Modes of Inquiry 3 IR  
Thematic, critical, or methodological issues in the theoretical study of texts. R2, 9 credits maximum

ETS450 Topics in Reading Race and Ethnicity 3 IR  
Constructions of race and/or ethnicity in various cultural texts and discourses. R2, 9 credits maximum

ETS460 Topics in Reading Class and Economic Materiality 3 IR  
Discourses of class and economic materiality as sites of power and resistance. R2, 9 credits maximum

ETS464 Topics in Reading Institutions and Ideologies 3 IR  
The studies of institutions and ideologies in mediating and determining cultural representations, political power, and knowledge. R2, 9 credits maximum

ETS465 Topics in Political Modes of Inquiry 3 IR  
Thematic, critical, or methodological issues in the political study of texts. R2, 9 credits maximum

ETS470 Experience Credit 1-6 SI  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

ETS490 Independent Study 1-6 SI  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ETS494 Research Practicum in English and Textual Studies 1 Y  
Intensive practice in research and study of research methodologies aimed at defining an ETS thesis project.

ETS495 Thesis Workshop 2 Y  
Intensive directed research and writing aimed at producing an ETS thesis project.

ETS499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### Foreign Languages And Literatures

FLL 131 Chinese Writing 1 S  
Offered only in Hong Kong. Intensive writing class for students who have no prior knowledge of Chinese writing. Origin of Chinese characters; traditional Chinese writing forms will be taught.

FLL 141 Beginning Cantonese Conversation 1 S  
Offered only in Hong Kong. Formal and colloquial speech; effective communication with native Cantonese speakers; culture and day-to-day life.

FLL 404 'AZAHAR' The Islamic Conquest and the Christian Reconquest 2 S  
Crosslisted with: HUM 404, MES 404  
Thirteen day interdisciplinary seminar. Lectures in situ. Artistic, historical, cultural monuments of Cordoba, Sevilla, Granada and Toledo or Salamanca. Theological, philosophical and historical thought as to recreate the artistic and cultural climate of medieval al-Andalus/Spain.

### French And Francophone Studies

FRE 101 French I 4 Y  
Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in French. No prior experience or admission by placement testing. Students cannot enroll in FRE 101 after successfully completing FRE 102, FRE 201, or FRE 202 or higher.  
PREREQ: REQUIRED PLACEMENT EXAM SCORE.

FRE 102 French II 4 S  
Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in French. Students cannot enroll in FRE 102 after successfully completing FRE 201, FRE 202 or higher.  
PREREQ: FRE 101 OR REQUIRED PLACEMENT EXAM SCORE.

FRE 201 French III 4 S  
Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in French. Students cannot enroll in FRE 201 after successfully completing FRE 202 or higher.  
PREREQ: FRE 102 OR REQUIRED PLACEMENT EXAM SCORE.

FRE 202 French IV 4 S  
Continuing proficiency-based course which focuses on reading, discussing, and analyzing authentic texts as a basis for the expression and interpretation of meaning. Conducted in French. .  
PREREQ: FRE 201 OR REQUIRED PLACEMENT EXAM SCORE.

FRE 210 Intermediate Oral Practice 1 S  
Additional practice for students in FRE 201 or above. Attention confined to the spoken language. Weekly discussion of a variety of topics in French.  
PREREQ: FRE 201 OR 202. R

FRE 290 Independent Study 1-6 IR  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

FRE 300 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

FRE 301 French Grammar and Composition 3 Y  
Advanced study of French language structures and practice in writing skills. Conducted in French.

FRE 302 French Phonetics and Conversation 3  
Study of French pronunciation, the phonetic alphabet, and phonology. Conversational practice based upon selected aspects of French life and culture. Conducted in French.

FRE 305 Evolution and Revolution through the Centuries 3 IR  
Evolution of French literature: Middle Ages to French Revolution. Retracing trajectory that les lettres francaises followed, from first 'song' composed in French to various points of new genres invented, experimented, incorporated in body of literature. Conducted in French.

FRE 306 From Romanticism to Postmodernism 3 IR  
Representative works from the 19th century to present. Special emphasis on major literary movements (i.e. romanticism, realism, naturalism, modernism, post-modernism) and their influences. Conducted in French.

FRE 307 Varieties of Realism 3 Y  
Realist forms of literature in 19th- and 20th-century French literature through close readings and analyses of narrative techniques. Offered in Strasbourg only.  
PREREQ: FRE 202.

FRE 315 French Civilization 3 IR  
A survey of social and cultural evolution in France from prehistoric times to 1958. Conducted in French.

FRE 316 Contemporary French Culture 3 IR  
French society and culture from post-World War II to present: contemporary French politics, economy and society, dynamics of intellectual and cultural milieus. Underlying principles of French culture, i.e. definition of self, society distinguishing France from others. Conducted in French.

FRE 317 Business French 3 IR  
Language usage in relation to French business. Conducted in French.

FRE 325 Junior Language Usage 3 IR  
Continuation of FRE 325. Also offered regularly abroad.

FRE 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

FRE 401 Translation/Traduction 3 IR  
Theory and practice of translation (French to English and English to French) using a variety of texts. Focus on Ottomans, Italy, France, Iberia, North Africa, 1348-1789. Topics include international relations and empire-building in Africa, Asia, and Europe, commerce, piracy, plague, religion, family/sexuality, architecture, political and cultural developments during Renaissance, Age of Discovery, Enlightenment.

FRE 403 Eighteenth-Century French Literature and Film Adaptation 3 IR  
A critical study of the cinematic adaptation of selected French and Francophone literary texts. Conducted in French.

FRE 405 French Culture in Age of Louis XIV 3 IR  
Double Numbered with: FRE 605  
Study of French literature, aesthetics and culture of absolutism. Conducted in French. Additional work required of graduate students.

FRE 407 French Libertine Fictions 3 E  
Double Numbered with: FRE 607  
Analysis of seventeenth- and eighteenth-century French libertine texts and their relation to philosophy, art, religion, and society. Conducted in French. Additional work required of graduate students.

FRE 409 French Culture and Revolution 3 O  
Double Numbered with: FRE 609  
French enlightenment literature and culture considered within the context of the French Revolution. Conducted in French. Additional work required of graduate students.

FRE 411 Moliere 3 E  
Double Numbered with: FRE 611  
Study of the playwright's major works in light of contemporary political, social, and cultural trends. Conducted in French. Additional work required of graduate students.

FRE 412 French Women Writers 3 E  
Crosslisted with: WGS 412; Double Numbered with: FRE 612  
Trends in French feminine and feminist writing from the early modern period to the present. Conducted in French. Additional work required of graduate students.

FRE 417 "Impressions d'Afrique": Caribbean Gazes 3 O  
Double Numbered with: FRE 617  
A survey of African issues through the eyes of Francophone Caribbean writers and their texts. Conducted in French. Additional work required of graduate students.

FRE 419 Sembene Ousmane and the African Cinema 3 E  
Double Numbered with: FRE 619  
A study of Sembene Ousmane's work as an introduction to the aesthetics and politics of Black African Cinema, and to issues of film history and theory. Conducted in French. Additional work required of graduate students.

FRE 421 Francophone African Criticism 3 E  
Double Numbered with: FRE 621  
Major trends in Francophone African literary criticism. Conducted in French. Additional work required of graduate students.

FRE 427 The Renaissance Body 3 Y  
Double Numbered with: FRE 627  
Examines the body as a trope in French literature and culture of the late-medieval and Renaissance periods. Additional work required of graduate students.

FRE 431 Montaigne and the New World of Renaissance Writing 3 Y  
Double Numbered with: FRE 631  
Examines the modernity of Montaigne's *Essais* (1580-92) by focusing on the author's creation of a self-portrait in writing. Additional work required of graduate students.

FRE 439 Art in France from Impressionism to Surrealism 3 IR  
Crosslisted with: HOA 365  
Focus on major painters who lived and worked in Paris from 1860 to 1945. Emphasis on analyzing and writing about painting. Field trip to Paris. Conducted in French. Offered in Strasbourg only.  
PREREQ: FRE 202.

FRE 441 France Under the Occupation 3 Y  
Interdisciplinary study of the Occupation period (1940-1945) through documents, films, and creative works. Offered in Strasbourg only.  
PREREQ: FRE 202 AND ANY FRE 300 LEVEL.

FRE 443 Modern French Drama 3 Y  
Introduction to major French playwrights from the late nineteenth century to the present. Includes outings to productions in Strasbourg's theaters. Offered in Strasbourg only.  
PREREQ: FRE 202 AND ANY FRE 300 LEVEL.

FRE 447 France from the Revolution to the Great War 3 Y  
Crosslisted with: HST 447  
Study of the rise of the French Republic, its revolutions, and its recurrent lapses into authoritarian rule, notably under Napoleon I and III. Conducted in French. Offered in Strasbourg only. [Effective spring 2009]  
PREREQ: FRE 202.

FRE 449 France from the Treaty of Versailles to European Integration 3 Y  
Crosslisted with: HST 449  
Analysis of major events in recent French history, including the rise of the Popular Front, the Nazi Occupation, the end of colonial rule, and the process of European integration. Conducted in French. Offered in Strasbourg only. [Effective spring 2009]  
PREREQ: FRE 202.

## Forensic Science

FSC 206 Intermediate Forensic Science 4 Y  
Provides a detailed look at some of the scientific ideas behind crime detection and how they interact with the legal system. Provides a rational basis for scientific analysis and interpretation of forensic evidence. Reinforced through relevant case studies.  
PREREQ: CHE 113.

FSC 406 Advanced Forensic Science 3 S  
Double Numbered with: FSC 606  
Selected areas of current interest in forensic science presented. The application of scientific methods and techniques to crime detection and the law.  
PREREQ: CHE 106 OR 109 OR 113 OR BIO 121.

FSC 431 Statistics for Forensic Science 3 Y  
Double Numbered with: FSC 631  
Statistical concepts and methods relevant to forensic science. Includes probability, error limits, confidence intervals. Correlation, regression, and calibration. Focus on practical application, including DNA population probabilities, evidence evaluation, and hypothesis testing. Additional work required of graduate students.

FSC 435 Medicolegal Death Investigation I 3 Y  
Double Numbered with: FSC 635  
Medicolegal death investigation which deals with the history, purpose and legal underpinning of death investigations, effectively handling a death scene, and protocols for public safety and scene processing. Additional work required of graduate students.

FSC 436 Medicolegal Death Investigation II 3 Y

Double Numbered with: FSC 636

Second course in the sequence dealing with information on medicolegal death investigation and deals with procedures for MDI processing and other topics for conducting scientific medicolegal investigations. Additional work required of graduate students.

FSC 437 Medicolegal Death Investigation for Emergency Responders 3 Y

Double Numbered with: FSC 637

Course focuses upon the information needed by emergency responders in dealing with suspicious or unexpected deaths. Topics will include dealing with sudden or unexpected deaths, handling the scene, death investigation laws and other topics. Additional work required of graduate students.

FSC 440 Special Topics in Advanced Forensics 3 S

Double Numbered with: FSC 640

An in-depth study of scientific disciplines engaged in the criminal justice and legal systems by providing a rational basis for interpreting the scientific analysis of forensic evidence through relevant case studies. Additional work required of graduate students. R

FSC 444 Forensic Chemical Analysis 4 Y  
Crosslisted with: CHE 444; Double Numbered with: FSC 644

Lecture content, delivered online, and laboratory on analytical methods of forensic chemistry. Underlying theory and direct experience in various chemical tests and spectroscopic methods. Additional work required of graduate students.

PREREQ: (CHE 116 AND 117) OR (CHE 119 AND 139).

FSC 451 Forensic Pathology 3 Y

Double Numbered with: FSC 651

Introduction to forensic pathology and medicolegal investigation of death. Role and jurisdiction of the Medical Examiner, including the autopsy. Specific patterns of injury, types of deaths referred to the Medical Examiner, postmortem decompositional changes, and special topics of interest in death investigation will be discussed. Additional work required of graduate students.

FSC 452 Forensic Mental Health 3 Y

Double Numbered with: FSC 652

Role of consultation, research and clinical practice in areas in which psychiatry is applied to legal issues. Covers how mental health and legal systems function together; issues common to forensic psychiatric analyses.

Additional work required of graduate students.

FSC 453 Forensic Toxicology 3 Y

Double Numbered with: FSC 653

Procedures utilized in forensic toxicology, including specimen types, sample preparation, instrumentation, analytical methods, and interpretation of findings. Knowledge of organic and analytical chemistry is strongly advised. Additional work required of graduate students.

PREREQ: CHE 116.

FSC 454 Nuclear Forensics 3 IR

Double Numbered with: FSC 654

The science behind the detection, analysis, and source attribution of nuclear materials. Includes engineering, social, and governmental considerations in the wide range of circumstances encountered in this field.

Offered only online. Additional work required of graduate students.

PREREQ: CHE 116.

FSC 457 Principles of Human Toxicology 3 Y

Crosslisted with: BIO 457; Double Numbered with: FSC 657

This course examines key aspects of human toxicology, including dose-response relationships, absorption, distribution, biotransformation, elimination, toxicokinetics, molecular mechanisms of toxicity, pesticides, metals, and toxic responses in specific organ systems. Additional work required of graduate students.

FSC 461 Firearms and Impression Evidence 3 Y

Double Numbered with: FSC 661

Forensic analysis of firearm and impression evidence and its presentation through court testimony. Manufacturing methods' impact on identification. Serial number restoration, distance determination, full auto conversions, trace evidence, latent print analysis, laboratory quality assurance. Additional work required of graduate students.

FSC 462 Forensic Entomology 3 O

Double Numbered with: FSC 662

Application and utility of insects as evidence in criminal investigations. Biology and importance of different insect groups in decomposition process. Collection, identification, and processing of insect evidence. Temperature-time relationship in insect growth, its practical use in calculating post-mortem intervals. Additional work required of graduate students.

FSC 463 Bloodstain Pattern Analysis 3 Y

Double Numbered with: FSC 663

A lecture and laboratory introduction to the analysis of bloodstain patterns in a forensic context. History, theory, and scientific principles behind the analysis methods are supported by laboratory creation and analysis of various types of bloodstains. Additional work required of graduate students.

FSC 465 Latent Prints 3 Y

Double Numbered with: FSC 665

Biology of friction ridge skin including pattern class recognition. Digital imaging of latent prints, analysis and comparison, evidence processing including individual mock cases near the end of the semester. Additional work required of graduate students.

FSC 467 Forensic Photography 3 Y

Double Numbered with: FSC 667

Use of photography in criminal and civil investigations and trials. Changing face of photography and how use of digital cameras has altered rules of evidence and admissibility. Proper use of digital single lens reflex cameras and digital flash. Additional work required of graduate students.

FSC 468 Crime Scene Investigation 3 Y

Double Numbered with: FSC 668

History and practice of crime scene investigation, including photography, sketches, note-taking, processing and collection of evidence. Includes bloodstain pattern interpretation, collision reconstruction, case studies, mock crime scenes, moot court. Additional work required of graduate students.

FSC 470 Experience Credit 1-6

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

FSC 480 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

FSC 490 Independent Study 1-6

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

FSC 498 Capstone Seminar in Forensic Science 3 Y

Explore specific overlaps of primary major with forensic science, make contacts with practitioners in the field, complete a capstone project, and present findings. Project will be determined through consultation between the student, instructor, and at least one practitioner.

## Geography

GEO 103 Environment and Society 3 S

Relationship between society and the environment. Natural resource use, climate change politics, food and agriculture, energy, water, and sustainability.

GEO 105 World Geography 3 IR

World geography, people's relation to the land. Major concepts of geography for nonspecialists.

GEO 155 The Natural Environment 3 S

Patterns of the physical phenomena at and near the surface of the earth. Surface configuration, climate, vegetation, and soil and their areal interrelationships.

GEO 171 Human Geographies 3 S

An integrative overview to human geography. Topics include human-environmental relations, demographic change, cultural landscape; urban and agricultural land use and economic restructuring.

GEO 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. \* R

GEO 203 Society and the Politics of Nature 3 IR

Biophysical and social contexts of environmental problems and decision making. U.S. and international issues considered, linking local, regional, and global scales of analysis. Case examples include water management, energy policy, global warming, sustainable development.

GEO 215 Global Environmental Change 3 Y

Focusing on physical processes and patterns of environmental change, changes occurring as a result of human activities, and the social consequences of environmental change.

GEO 219 American Diversity and Unity (Honors) 3 Y

Ethnic and racial interactions that influenced American culture's present form, both visible (i.e., landscape) and invisible. Contemporary sociocultural changes in the frontier/West/Alaska, southern California, and the South. For honors students.

GEO 270 Experience Credit 1-6 IR

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

GEO 272 World Cultures 3 Y

The globalization of culture and the persistence of local cultures around the world. Case studies from different regions of the world examine geographical processes that shape ways of life.

GEO 273 World Political Economy 3 Y

Survey of emergence of an integrated global political economy from the sixteenth century to the present. Creation of "developed" and "under-developed" regions. Case studies of the impact of global transformations on regions and institutions.

GEO 300 Selected Topics 1-3 Y

Selected Topics R

GEO 311 The New North Americas 3 O

Critical study of social, political, economic, and cultural processes across contemporary North America. Focus on geographies of globalization, transnationalism, economic restructuring, and new social movements, with particular attention to race/ethnicity, gender, power, and resistance.

GEO 313 The United States 3 E

Cultural, social, and regional approaches to understanding the geography of the United States. American national identity and cultural landscape, regional consumer behavior patterns, and current regional issues.

GEO 314 Hazardous Geographic Environments 3 Y

Mapping and public policy for natural and technological hazards. Risk perception, geographic modeling, and vulnerability assessment. Mitigation measures, risk mapping, land-use restrictions, and emergency planning.

GEO 316 River Environments 3 Y

Characteristics of river environments, including hydroclimatology, floods, landforms, vegetation, human impacts, and resource management issues.

GEO 317 Geography of Mountain Environments 3 O

Physical and human geography of mountain regions. Focus on tectonic, geomorphological, biogeographical, and climatic processes; resource use problems and patterns, conservation, and development; environmental hazards.

GEO 318 Tropical Environments 3 E

Tropical ecosystems and their human dimensions, with an emphasis on the Neotropics. Distribution, structure, and function of natural systems; human-environment interactions; management and significance.

GEO 319 Cold Environments 3 E

An exploration of environmental processes, interactions, and environmental problems in the cold regions of the world, emphasizing the Arctic.

PREREQ: GEO 155 AND (GEO 103 OR 171 OR 272).

GEO 321 Latin American Development: Spatial Aspects 3 IR

Crosslisted with: LAS 321

Spatial dimensions of development process in Latin America since the 1930s in a variety of contexts and at several scales. Variety of spatial models that may be applied.

GEO 325 Colonialism in Latin America 3 S

Processes of geographical change in Latin America from the sixteenth to the early twentieth century. Reconstruction of geographies of Latin America at critical periods.

GEO 326 The Geography of Climate and Weather 3 Y

Atmospheric dynamics emphasizing spatial distributions of energy and moisture at several scales. Weather phenomena, regional climates, and human-induced perturbations and modifications of climate systems. Land-use change, climate change and urban climatologies.

PREREQ: GEO 155 OR EAR 101.

GEO 327 Geography of Coastal Environments 3 O

Natural environmental processes in the coastal zone. Emphasis on coastal transformation due to climate variability and change, estuarine pollution and habitat destruction, human modification; and subsequent associated societal hazards and implications.

PREREQ: GEO 155.

GEO 331 The European Union 3 Y  
Geo- political foundations, economic and political developments, European community institutions, integration and external relations.

GEO 340 Geography of Oil 3 Y  
The topic of oil used to explore the concerns of human geography with society, space, and the natural environment. By learning about oil we will cover themes and concepts important to environmental, political, cultural, economic and urban geography.

GEO 347 Art and Environment in American Culture Since 1800 3  
Crosslisted with: HOA 482  
Visual arts and environmental concern in the U.S. from the early national period to the present. Emphasizing diversity of artists and forms, the changing cultural constructions of nature, and tracing an ecological tradition in art.

GEO 353 Geographies of Environmental Justice 3 E  
The relationship between environmental quality and social justice. Spatial aspects of unequal distribution of environmental risks and benefits. Case studies drawn from urban rural examples in both the United States and the Third World.

GEO 354 American Environmental History and Geography 3 Y  
Crosslisted with: HST 384  
Relationship between Americans and the natural environment from the colonial period to the present. Ecological imperialism, technology and nature, resource-management conflicts, urban environments, development of conservation and environmentalism.

GEO 356 Environmental Ideas and Policy 3 Y  
Fundamental ideas relating to underlying evolution and implementation of environmental policy in the USA.

GEO 358 Animals and Society 3 E  
Relations between people and animals employing approaches from the social sciences and humanities. Topics include history and geography of animals in America, managing wildlife, zoos, animals in popular culture, pets and companion animals.

GEO 361 Global Economic Geography 3 IR  
World patterns of production and consumption in the context of regional resources and population problems. Impact of technological change on geographic organization of economic systems. Concepts in economic geography and their policy implications.

GEO 362 The European City 3 Y  
Historical development of Europe through its cities. Growth and form of European cities; how they are governed and planned.

GEO 363 Cities of North America 3 IR  
Urban images and sense of place. Urbanization and urban growth. Urban functions and form. Social patterns, change, and transformations of urban landscapes. Housing, neighborhood, and land-use change.

GEO 367 Gender in a Globalizing World 3 IR  
Crosslisted with: ANT 367, WGS 367  
Economic and cultural processes of globalization as they affect different groups of men, women, and households; including gender and work, development and environmental change, and redefinitions of masculinity and femininity across the globe.

GEO 372 Political Geography 3 Y  
Geographic analysis of the political process at a variety of spatial scales - international, intra-national, and urban. Origins of territorial organization and conflicts over access to and use of space.

GEO 374 Environment and Development in the Global South 3 Y  
Critical analyses of international development in theory and practice, especially as it relates to environmental change in complex ways in the Global South. Topics include modernization, participation, community, gender, sustainability, agriculture, trade, water, climate change.

GEO 381 Cartographic Design 4 Y  
Basic elements of cartographic design, including symbolization, figure-ground relationships, color theory, and typography. Effect of scale and projection on design process. Computer-assisted methods of cartographic design, including graphic representations for geographic information systems.

GEO 383 Geographic Information Systems 3-4 S  
Double Numbered with: GEO 683  
Basic concepts in spatial data handling. Algorithms and data structures for Geographic Information Systems (GIS). Demonstration of power, potential, and limitations of GIS. Graduate students register for three credits. Undergraduate students register for four credits with required laboratory work.

GEO 386 Quantitative Geographic Analysis 3 E  
Double Numbered with: GEO 686  
Descriptive and inferential statistics for use geo-referenced data, spatial autocorrelation, and geostatistics. Geographic examples. Weekly labs. Individualized advanced work and term project.  
PREREQ: MAT 121 OR 183 OR 221 OR STT 101.

GEO 388 Geographic Information and Society 3 E  
Double Numbered with: GEO 688  
Effects of geographic information technologies on governments, communities, and individuals. Mapping as an information industry, a political process, a surveillance technology, and a communication medium. Copyright, access, hazard management, national defense, public participation, and privacy.

GEO 396 European Integration 3 Y  
Crosslisted with: PSC 396  
Focuses on the origins, nature, and likely future course of the European Union. More generally, examines five long-range challenges facing contemporary Europe: Demographic decline; globalization; Civic Integration; Great Power Rivalry; and Sustainable Development.

GEO 400 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

GEO 405 Conservation and Management Protected Areas: South Africa-O TS 4  
Crosslisted with: ANT 405  
Taught in South Africa through the Organization for Tropical Studies program. Analyze management of wildlife and natural resources within ecological, political, social, historical, and economic context of South Africa.

GEO 415 Food: A Critical Geography 3 E  
Critical examination of the social, political and environmental aspects of contemporary agri-food systems. Topics include industrial and alternative agriculture, fisheries, food policy, hunger, health issues and food justice. Involves field-based and mapping assignments.

GEO 425 South Africa 3 O  
The geography, history, and societal complexity of South Africa. Its current place in the world, its parallels and lessons for the USA.

- GEO 428 Auld Reekie: Scotland and the Road to London 3 IR  
Field studies seminar examining popular and elite cultural forms that organize life in Britain. Emphasizes interaction with local culture environments to explore contemporary identities and how and why identity and attitude are formed. Offered in London only.
- GEO 430 Energy, History and Society 3 IR  
Explores the role of energy resources in shaping historical, social, and political change.
- GEO 440 Race and Space 3 E  
Critical geographic study of race and racism as formative aspects of sociocultural, economic and political processes. Focus on race/racism's operations across scales, with particular attention to gender, class, culture, colonialism, citizenship, power, and resistance.
- GEO 443 Southeast Asia in the World Political Economy 3 Y  
Crosslisted with: INB 443, IRP 443, PSC 443  
Offered only in Hong Kong. Explores the historical and contemporary forces that have shaped the South East Asian region and its unique cultural, social, political and economic characteristics.
- GEO 450 Geographies of Migration and Mobility 3 IR  
This course examines human migration and its sociocultural and political impacts on sending and receiving communities. Focused on the mobility of people, ideas, and commodities, it investigates migration's role in producing and transforming human geographies.
- GEO 455 Biogeography 3 E  
Double Numbered with: GEO 655  
Exploration of the environmental factors that influence the distribution of organisms. Emphasis is on plant distributions and dynamics, and consideration includes both natural and human factors. Additional work required of graduate students.
- GEO 463 Geography of Homelessness 3 E  
Examines the roots and consequences of homelessness in contemporary cities. Focus on United States and globalization of American-style homelessness. Explores role of space and spatial relationships in shaping homeless people's lives and homeless policy.
- GEO 470 Experience Credit 1-6 IR  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R
- GEO 482 Environmental Remote Sensing 3 Y  
Principles and environmental applications of remote sensing. Uses and limitations of remotely-sensed data; typical image processing operations and analyses; laboratory work and individual term project using remotely-sensed imagery.
- GEO 485 Community Geography 3 E  
Double Numbered with: GEO 685  
Introduces community-based and participatory research methods and participatory GIS, including origins, ethics and challenges. Examines how and why grassroots organizations use GIS and geospatial technologies. Students conduct local research projects. Additional work required of graduate students.
- GEO 490 Independent Study 1-6 IR  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R
- GEO 491 Senior Seminar in Geography 3 Y  
Research and presentations in a selected field of geography. Topic announced each time offered. Primarily for advanced geography majors and minors.  
PREREQ: GEO 103 AND 155 AND 171. R
- GEO 492 Senior Thesis Seminar 3 Y  
Seminar for senior geography majors graduating with distinction. Individualized and small-group mentoring and directed research.
- GEO 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum
- GEO 500 Topics in Geography 1-3 Y  
In-depth studies of selected topics. R
- GEO 510 Research on North America 1-3 IR  
Reading and special work R
- GEO 520 Research on Latin America 1-3 IR  
Crosslisted with: LAS 520  
Reading and special work R
- GEO 530 Research on Africa 1-3 IR  
Reading and special work. R
- GEO 537 Environmental Policy in a Development Context 3 S  
Crosslisted with: LAS 537  
Offered only in Santiago. Examines historical/intellectual/ material processes that transformed nature into natural resources to be exploited; ways global political process has guided global responses to environmental problems; Chilean environmental policy over the last 20 years.
- GEO 538 Research on Europe 1-3 IR  
Reading and special work. R
- GEO 540 Research on Southern and Eastern Asia 1-3 IR  
Reading and special work. R
- GEO 550 Research on Physical Geography 1-3 IR  
Reading and special work. R
- GEO 560 Research: Economic Geography 1-3 IR  
Reading and special work. R
- GEO 561 Global Economic Geography 3 IR  
Globalization, world economic processes, international development, and policy issues; emphasizing geographical perspectives.
- GEO 563 The Urban Condition 3 IR  
Contemporary cities. Economic growth and decline. Social polarization. Construction of the built environment. Case studies from around the world.
- GEO 564 Urban Historical Geography 3 O  
Cities in western civilization through classical, medieval, mercantile, and industrial eras to 1945. Historical geographic meanings of urbanism; social construction of the built environment; and relationships between power, social justice, and urban spatial form.
- GEO 570 Research on Cultural Geography 1-3 IR  
Reading and special work. R
- GEO 572 Landscape Interpretation in Cultural Geography 3 SI  
Contemporary theories and methods. Traditional, historical-materialist, postmodernism, and post-structuralist approaches to landscape. Additional work required of graduate students.
- GEO 573 The Geography of Capital 3 O  
In-depth reading of Marx's Capital to understand: (a) the relationship between political economy and the geographical landscape; (b) the formative role of "Capital" in contemporary geographic theory.

GEO 576 Gender, Place, and Space 3 IR  
Crosslisted with: WGS 576  
Contemporary debates in feminist geography on the gendered construction of space and the spatial construction of gender.

GEO 580 Research on Cartographic Techniques 1-12 IR  
Reading and special work. R

GEO 583 Environmental Geographical Information Science 3 Y  
Data types, collection techniques, and processing strategies in natural resource survey. Monitoring and environmental sciences. Basic concepts of GIS data structures and algorithms. Data quality issues. User requirements, management aspects, and implementation experience.  
PREREQ: GEO 383 OR 683.

GEO 595 Geography and the Internet 3 Y  
An introduction to the structure and functions of the Internet and its impact on spatial relations from the global to the local. A detailed examination of the World Wide Web and practical training in web page design.

## German

GER 101 German I 4 Y  
Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in German. No prior experience or admission by placement testing. Students cannot enroll in GER 101 after successfully completing GER 102, GER 201, or GER 202 or higher.  
PREREQ: REQUIRED PLACEMENT EXAM SCORE.

GER 102 German II 4 Y  
Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in German. Students cannot enroll in GER 102 after successfully completing GER 201, GER 202 or higher.  
PREREQ: GER 101 OR REQUIRED PLACEMENT EXAM SCORE.

GER 201 German III 4 Y  
Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in German. Students cannot enroll in GER 201 after successfully completing GER 202 or higher.  
PREREQ: GER 102 OR REQUIRED PLACEMENT EXAM SCORE.

GER 202 German IV 4 Y  
Continuing proficiency-based course which focuses on reading, discussing, and analyzing authentic texts as a basis for the expression and interpretation of meaning. Conducted in German. Students cannot enroll in GER 202 after successfully completing a course higher than GER 202.  
PREREQ: GER 201 OR REQUIRED PLACEMENT EXAM SCORE.

GER 306 German Composition and Conversation 3 Y  
Provides increasing facility in idiomatic use of spoken and written language.

GER 340 German Fairy Tales: Past and Present 3 IR  
The course explores fairy tales from the Brothers Grimm to contemporary forms of the genre in the original language. Focus on definition, stylistics, origins, development and politics of German fairy tales. R1, 6 credits maximum

GER 356 German Culture and Civilization 3 Y  
Area survey of social and cultural phenomena: literature, philosophy, music, and art. Practice in speaking, composition, and aural comprehension.

GER 357 Contemporary German Culture and Civilization 3 Y  
Survey and analysis of developments in the arts and literatures and in the political, educational, and social systems in the G.D.R. and the F.R.G. since 1945.

GER 361 Berlin: City - Literature - History 3 IR  
The course explores the representation of Berlin in German literary texts from the early 20th century to the present. Focus on major historical shifts: Weimar Republic, Third Reich, Divided Berlin, Fall of the Berlin Wall.

GER 365 Nineteenth-Century Prose 3  
The rise of realism as manifested particularly in the years 1830-1880. Lectures, discussion, short papers. Offered alternate years.

GER 366 Nineteenth-Century Drama 3  
Drama and dramatic theory between 1830 and 1880. Leading works by Büchner, Hebbel, Wagner, Grillparzer. Lectures, discussion, short papers. Offered alternate years.

GER 367 German Lyrics and Ballads 3  
Offered alternate years.

GER 376 Classicism and Romanticism 3  
Literary works and criticism of later Goethe and Schiller. The writings of such Romantic authors as the Schlegels, Tieck, Novalis, E.T.A. Hoffmann. Lectures, discussion, short papers. Offered alternate years.

GER 377 Literature from 1880 to the Close of World War II 3  
Important writers of prose, drama, and lyric between 1880 and 1945. Schnitzler, Hofmannsthal, Kafka, Hesse, Mann, Brecht. Lectures, discussion, short papers. Offered alternate years.

GER 378 German Literature Since World War II 3  
Important poets, dramatists, and prose writers after 1945. Includes Böll, Grass, Frisch, Durrenmatt. Lectures, discussion, short papers. Offered alternate years.

GER 379 German and Austrian Cinema 3 IR  
Explores and analyzes early and modern German and Austrian films. Conducted in German. The content of the course varies from semester to semester. Lecture, discussion for each film R1, 6 credits maximum

GER 580 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Greek

GRE 101 Ancient Greek I 4 Y  
Introductory course which prepares students to acquire a reading knowledge of Classical Attic Greek, focusing on morphology and syntax, and its role in the culture and literature of ancient Greek society. No prior experience or admission by placement testing. Students cannot enroll in GRE 101 after successfully completing GRE 102, GRE 201, or GRE 202 or higher.

GRE 102 Ancient Greek II 4 Y  
Continuing course with emphasis on morphology and syntax. Introduction to examples of unsimplified Ancient Greek prose of the classical period, read and interpreted within the cultural context of ancient Greek society. Students cannot enroll in GRE 102 after successfully completing GRE 201, GRE 202 or higher.  
PREREQ: GRE 101.

GRE 201 Ancient Greek III 4 Y  
Continuing course with review of morphology and syntax and further study of idioms, rhetorical figures, and syntactic peculiarities. Reading and study of representative prose authors. Students cannot enroll in GRE 201 after successfully completing GRE 202 or higher.

GRE 310 Greek Prose Authors 3  
Readings from selected ancient Greek prose authors. Review of grammar and syntax.  
PREREQ: GRE 102. R2, 9 credits maximum

GRE 320 Readings from Greek Poets 3  
Readings from selected ancient Greek poets. Review of grammar and syntax. Greek metrics and prosody. R2, 9 credits maximum

GRE 410 Advanced Greek Prose 3 Y  
Readings from selected Greek prose authors.  
PREREQ: GRE 310 OR 320.

GRE 420 Advanced Greek Poetry 3 Y  
Readings from selected Greek poets.  
PREREQ: GRE 310 OR 320.

GRE 500 Greek Prose Authors 1-3 SI  
Readings from selected Greek prose authors. R

## Hebrew

HEB 101 Hebrew I 4 Y  
Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Hebrew. No prior experience or admission by placement testing. Students cannot enroll in HEB 101 after successfully completing HEB 102, HEB 201, or HEB 202 or higher.  
PREREQUISITE FOR HEB 101.

HEB 102 Hebrew II 4 Y  
Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Hebrew. Students cannot enroll in HEB102 after successfully completing HEB 201, HEB 202 or higher.  
PREREQ: HEB 101.

HEB 201 Hebrew III 4 Y  
Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Hebrew. Students cannot enroll in HEB 201 after successfully completing HEB 202 or higher.  
PREREQ: HEB 102.

HEB 202 Hebrew IV 4 Y  
Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Hebrew. Students cannot enroll in HEB 202 after successfully completing a course higher than HEB 202.  
PREREQ: HEB 201.

HEB 301 Advanced Hebrew I 3 O  
Crosslisted with: JSP 301  
Hebrew literature in the original, ranging from the Bible to contemporary fiction, including 19th-century works such as Hasidic tales and Enlightenment satires.  
PREREQ: HEB 202. R1, 6 credits maximum

HEB 303 Advanced Hebrew II 3 O  
Crosslisted with: JSP 303  
Continuation of HEB/JSP 301, using more advanced texts

HEB 401 Hebrew Literature in the Original 3 O  
Crosslisted with: JSP 401  
The course retraces the history of Hebrew writing in Europe and Palestine before 1948  
PREREQ: HEB 301.

HEB 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Hindi

HIN 101 Hindi/Urdu I 4 Y  
Crosslisted with: SAS 101  
Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Hindi/Urdu. Students cannot enroll in HIN101 after successfully completing HIN 102, HIN 201, or HIN 202 or higher.

HIN 102 Hindi/Urdu II 4 Y  
Crosslisted with: SAS 102  
Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Hindi/Urdu. Students cannot enroll in ARB 102 after successfully completing HIN 201, HIN 202 or higher.  
PREREQ: HIN 101.

HIN 201 Hindi/Urdu III 4 Y  
Crosslisted with: SAS 201  
Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Hindi/Urdu. Students cannot enroll in HIN 201 after successfully completing HIN 202 or higher  
PREREQ: HIN 102.

HIN 202 Hindi/Urdu IV 4 Y  
Crosslisted with: SAS 202  
Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Hindi/Urdu. Students cannot enroll in HIN 202 after successfully completing a course higher than HIN 202.  
PREREQ: HIN 201.

HIN 280 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Honors Program

HNR 100 Honors Orientation Seminar 1 S  
Intellectual enrichment, fostering academic pursuits, and introduction to the world of ideas. R

HNR 210 Arts in Society Seminar 1 S  
Experience-based introduction to the arts in the city of Syracuse, such as opera, symphony, stage, and visual art. R

HNR 220 Seminar: Political Culture and Practice 1 S  
Civic literacy. Concepts and analysis of ideology and political socialization. Students attend public meetings and evaluate the role of ideology in public deliberation. R

HNR 230 Seminar: Scientific Issues and Practice 1 S  
Topics will vary. Introduces selected scientific concepts and controversies of current general interest. R

HNR 240 Topics in the Humanities Honors 3 S  
Selected topics in the humanities to vary for Honors students. Honors student or permission of instructor. R2, 9 credits maximum

HNR 250 Topics in the Natural Sciences and Mathematics Honors 3 S

Selected topics in the natural sciences and mathematics to vary for honors students. Honors student or permission of instructor. R2, 9 credits maximum

HNR 255 Topics in the Sciences with Laboratory Component 3 Y  
Selected topics in the sciences, with laboratory component. Topics will vary. R

HNR 260 Topics in the Social Sciences Honors 3 Y  
Selected topics in the social sciences to vary for Honors students. R2, 9 credits maximum

HNR 309 Capstone Project Planning Seminar 1 S  
Selection and refining of Honors Capstone Project topic; securing advisor; initiating research.

HNR 340 Topics in the Humanities Honors 3 S  
Selected topics in the humanities to vary for Honors students. R2, 9 credits maximum

HNR 350 Topics in the Natural Sciences and Mathematics Honors 3 Y  
Selected topics in the natural sciences and mathematics to vary for honors students. R2, 9 credits maximum

HNR 355 Topics in the Sciences with Laboratory Component 3 IR  
Selected topics in the sciences, with laboratory component. Topics will vary. R

HNR 360 Topics in the Social Sciences Honors 3 S  
Selected topics in the social sciences to vary for Honors students. R2, 9 credits maximum

HNR 400 Selected Topics 1-3 S  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HNR 401 Honors Orientation Seminar Junior Assistant Experience 1 Y  
Serve as an assistant for an HNR 100 Orientation Seminar; assist the faculty leader in guiding discussion and planning and implementing various aspects of the seminar. May be taken three times for credit. R2, 3 credits maximum

HNR 440 Topics in the Humanities Honors 3 IR  
Selected topics in the Humanities to vary for Honors students. R2, 9 credits maximum

HNR 450 Topics in the Natural Sciences and Mathematics Honors 3 IR  
Selected topics in the natural sciences and mathematics to vary for honors students. R2, 9 credits maximum

HNR 455 Topics in the Sciences with Laboratory Component 3 IR  
Selected topics in the sciences, with laboratory component. Topics will vary. R

HNR 460 Topics in the Social Sciences Honors 3 IR  
Selected topics in the social sciences to vary for Honors students. R2, 9 credits maximum

### History Of Art

HOA 100 Selected Topic: Fine Arts 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R, 999.90 credits maximum

HOA 105 Arts and Ideas I 3 Y  
Visual arts in relation to broader cultural, historical, and intellectual contexts. HOA 105 surveys the ancient world to the High Renaissance. HOA 106 proceeds from the late Renaissance to the present. Either course may be taken first or independently.

HOA 106 Arts and Ideas II 3 Y  
Visual arts in relation to broader cultural, historical, and intellectual contexts. HOA 105 surveys the ancient world to the High Renaissance. HOA 106 proceeds from the late Renaissance to the present. Either course may be taken first or independently.

HOA 121 Italian Art and Society from Ancient to Modern Times 3 Y  
Offered only in Florence for Discovery Florence students. Introduction to the study of art history through some of the world's most famous buildings, sculptures and paintings, and examination of their corresponding cultural contexts.

HOA 176 The Visual Arts of the Americas 3 E  
The visual arts in the Americas (South, Central, and North America) from contact to the present, emphasizing diversity of makers and media, as well as exchanges among cultural traditions.

HOA 200 Selected Topics in Arts and Ideas 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HOA 201 Masterpieces of Art 3 IR  
Major works of painting, sculpture, architecture, and decorative arts related by theme, period, or country. Sometimes offered abroad.

HOA 202 Arts of Italy 3 Y  
Crosslisted with: HOM 202  
Selected aspects, drawing on appropriate resources in architecture, museums, and/or musical performance in immediate geographical area. Offered only in Florence. Specific topics determined each semester.

HOA 203 Italian Arts from Antiquity to Michelangelo 3 Y  
The visual arts in relation to broader cultural, historical, intellectual contexts from ancient times through the High Renaissance. Site visit to Rome and selected "all-school" field trips. Offered only in Florence.

HOA 204 Italian Arts from the Medicis to the Futurists 3 Y  
The visual arts in relation to broader cultural, historical, intellectual contexts from the Renaissance through the late 19th century. Site visit to Rome and selected field trips. Offered only in Florence.

HOA 205 Italian Sculpture Interpreted 3 Y  
Masterpieces of Italian sculpture from antiquity to present, including works by Donatello, Michelangelo, Bernini, and Canova. Lectures alternate with weekly site visits. Trips to Carrara, Pisa, Verona, and Rome. Offered only in Florence.

HOA 206 Arts of France 3 Y  
Crosslisted with: HOM 206  
Selected aspects, drawing on appropriate resources in architecture, museums, and/or musical performance in immediate geographical area. Offered only in Strasbourg. Specific topics determined each semester.

HOA 207 Arts of England 3 Y  
Crosslisted with: HOM 207  
Selected aspects, drawing on appropriate resources in architecture, museums, and/or musical performance in immediate geographical area. Offered only in London. Specific topics determined each semester.

HOA 208 An Architectural History of London 3 Y  
The growth of London from the Norman Conquest to the present. Accent on important architectural areas, including the Guildhall, Westminster, Covent Garden, South Bank. Offered only in London.

- HOA 209 Arts of Spain 3 Y  
Crosslisted with: HOM 209  
Introduction to the art, architecture, music, and dance of Spain. Museum, gallery, and site visits. Concert, dance, and other performances. Topics vary. Offered only in Madrid.
- HOA 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R
- HOA 301 Origins of Western Art 3 IR  
Development of art in Europe, the Near East, Egypt, and the Aegean to the close of the Bronze Age. Paleolithic painting and sculpture. Megalithic structures, rise of Egyptian civilization. Growth of Minoan and Mycenaean cultures.
- HOA 302 Greek Art and Architecture 3 IR  
Works of Greek art and architecture are examined in their historical, social, and cultural contexts, from the Archaic to the Hellenistic Period.  
PREREQ: HOA 105.
- HOA 303 Etruscans and Romans: Ancient Art and Society in Italy 3 Y  
Crosslisted with: ANT 422  
Explores art and society of ancient Italy from ca. 1000 B.C. to A.D. 138, with special emphasis on the early Etruscans through Rome under Hadrian. Requires previous course in art history. Offered only in Florence.  
PREREQ: ANY HOA 100-499.
- HOA 304 Roman Art & Architecture 3 IR  
A history of Italian painting, architecture, and sculpture from the early Etruscans through that of Rome under Hadrian.  
PREREQ: HOA 105.
- HOA 311 Italian Medieval Art 3 IR  
Arts of the Italian peninsula and Sicily during the Romanesque and Gothic periods; architecture, sculpture, mosaic, minor arts.  
PREREQ: HOA 105.
- HOA 312 Romanesque Art 3 IR  
European art and architecture of the 11th and 12th centuries explored in their cultural, social, and artistic contexts.  
PREREQ: HOA 105.
- HOA 313 Gothic Art 3 E  
French arts from the beginning of the Gothic style through its maturity: architecture, sculpture, and stained glass.  
PREREQ: HOA 105.
- HOA 322 Early Renaissance Architecture in Italy 1400-1529 3 Y  
Crosslisted with: ARC 335  
Architectural theory and design in Italy, 1400-1520. Additional work required of graduate students.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.
- HOA 323 Sixteenth Century Italian Architecture 3 Y  
Crosslisted with: ARC 332  
Major architects and theories of 16th-century architecture, emphasis on social and political background, patronage, and the education of the architect. Additional work required of graduate students.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.
- HOA 324 Italian Seventeenth Century Architecture 3 Y  
Crosslisted with: ARC 336  
Complex and masterful accomplishments of individual architects within context of a mature architectural tradition and a particular social, economic, and religious milieu. Additional work required of graduate students.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.
- HOA 340 Studies in Baroque Art 3 E  
Rubens, Rembrandt, El Greco, Velázquez, Bernini, Caravaggio, and their contemporaries. Offered only in London.  
PREREQ: HOA 106.
- HOA 350 Art in Eighteenth Century Europe 3 IR  
Work relating to profound cultural changes of the period. Watteau, Fragonard, Boucher, Chardin, Reynolds, Gainsborough, and Tiepolo.  
PREREQ: HOA 106.
- HOA 360 Art and Identity 3 SI  
Social and ethical dimension of art in our times and since the nineteenth century: art and the state, avant-garde traditions, public art battles, museum politics, representing gender, outsider art, ethnic expression.  
PREREQ: HOA 105 OR 106.
- HOA 365 Art in France from Impressionism to Surrealism 3  
Crosslisted with: FRE 439  
Focus on major painters who lived and worked in Paris from 1860 to 1945. Emphasis on analyzing and writing about painting. Field trip to Paris. Conducted in French. Offered in Strasbourg only.  
PREREQ: FRE 202.
- HOA 366 Nineteenth & Twentieth Century Italian Art 3 E  
Development of Italian painting and sculpture from neoclassicism to the present. Offered only in Florence.  
PREREQ: HOA 106.
- HOA 371 Photography & the Fine Arts 3 O  
Still photography as a means of pictorial expression in the fine arts from 1840 to the mid-20th century. Interrelationships among photography, painting, and other visual arts.  
PREREQ: HOA 106.
- HOA 372 The Business of Art 3 IR  
Introduction to the practice and strategies of art as a tradable commodity. Topics include ethics of collecting, investment strategies, conservation and preservation of art, and art-related crime with its impact on the art market. Offered in London only.
- HOA 374 American Architecture, Settlement to 1860 3 Y  
Crosslisted with: ARC 337  
American architectural history and theory from first settlements through federal and Georgian to various revival modes. Additional work required of graduate students.  
PREREQ: ARC 211.
- HOA 375 American Architecture, 1860 - World War I 3 Y  
Crosslisted with: ARC 338  
American architectural history and theory from the Civil War through various revival modes to development of new commercial and residential forms before World War II. Additional work required of graduate students.  
PREREQ: ARC 134 OR CAS 134.
- HOA 377 Nineteenth-Century American Art 3 E  
The visual arts in the U.S. from the American Revolution to the Armory Show (1775-1913).  
PREREQ: HOA 105 OR 106 OR 276.
- HOA 378 Twentieth-Century American Art 3 O  
The visual arts in the U.S. from the World's Columbian Exposition (1893) to the present.  
PREREQ: HOA 105 OR 106 OR 276 OR 377.
- HOA 380 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HOA 386 Art of the Black World 3 Y  
Crosslisted with: AAS 361  
Arts of the African Diaspora. Emphasis on African American Art. Seventeenth century to present. Gender, socioeconomic, political and cultural contexts. Artistic implications of Black culture in comparative perspective with other artists and artistic movements.

HOA 387 Native North American Art 3 IR  
Crosslisted with: NAT 346  
Critical exploration of meanings, functions, techniques, and varieties of art in Native North American cultures, ancient to present. Attention to continuities, changes, and cultural exchanges; anthropological vs. art historical perspectives: limitations of term "art."

HOA 389 Islamic Architecture 3 IR  
Crosslisted with: ARC 435  
Major building traditions of Islam in the Middle East, North Africa, Spain, Turkey, and India elucidated through in-depth examination of major works and principles of architectural, urban, and garden design. Additional work required of graduate students.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.

HOA 391 Survey of Asian Art 3 E  
Major masterpieces of Indian, Chinese, Korean, Japanese art and architecture from prehistoric times to the present. Influence of Asian art on modern artists in the West, including Chinoiserie and Japonisme. Comparison of Eastern/Western aesthetics also considered.

HOA 392 The Arts of China 3 Y  
A chronological survey of the arts and visual culture of China. Major works of art and the material culture that surrounded them, from the Neolithic era to the present.

HOA 396 Art and Architecture of India 3 Y  
Crosslisted with: ARC 331, SAS 396  
Art and architecture of the Indian subcontinent from the Indus Valley Civilization to the present.

HOA 400 Selected Topics 1-6 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HOA 405 The Mediterranean City: Architecture, Ritual and Power 3 Y  
Examines a series of ritual sites around the Mediterranean basin; architecture, choreography, politics, considering innovation and continuity in the design, use, and abuse of mass spectacle as a tool for social identity. Offered only in Florence.  
PREREQ: ANY HOA 100 LEVEL OR ABOVE.

HOA 410 Art and Ideology in Medieval Spain 3 IR  
Examines works of art and architecture from Medieval Spain, within their multicultural Christian/Islamic/Jewish context. Emphasizing their ideological value as vehicles for identity, authority, and spiritual ideals.  
PREREQ: HOA 105.

HOA 411 The Black Death and Medieval Art: Catastrophes and Cultural Change 3 IR  
Painting and sculpture from 1260 to 1380, the effects of the Bubonic Plague (1348) as manifested in art. Day trips to Padua and San Gimignano; site visits in Florence. Offered only in Florence.  
PREREQ: ANY HOA 100-499 OR HST 355.

HOA 412 The Gothic Spell 3 IR  
Exploration of the definition, meaning, and appeal of the Gothic through the ages, Gothic being understood as an architectural language, a literary and film genre, and a Pop subculture.

HOA 413 Gothic Art in Italy 3 IR  
Introduction of the Gothic style into Italy in the 12th and 13th centuries: architecture, monumental sculpture, and stained glass of the Cistercians, the mendicant orders, and the great civic cathedral projects.  
PREREQ: HOA 105.

HOA 419 The City in Architectural History 3 IR  
Crosslisted with: ARC 432  
A single city throughout its history, or various cities at a particular time in history. Additional work required of graduate students. Additional work required of graduate students.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.

HOA 420 Fifteenth-Century Italian Art: Inventing the Renaissance 3 IR  
Explores the new developments in 15th century Italian visual culture that became the defining characteristics of the early Renaissance period. Requires previous course in art history or one course in Renaissance history. Offered only in Florence.  
PREREQ: HOA 105.

HOA 421 Early Renaissance Art 3 E  
Visual arts in Italy during the 14th and 15th centuries. Sometimes offered abroad.  
PREREQ: HOA 105.

HOA 422 High Renaissance Art/Mannerism 3 O  
Origins of High Renaissance style in Florentine art of the late quattrocento: Leonardo, Michelangelo, Fra Bartolomeo, Roman High Renaissance style, Giorgione, and Titian. Concept of the maniera. Sometimes offered abroad.  
PREREQ: HOA 105.

HOA 423 Artistic Patronage of Medici 3 IR  
How the Medici family used art and architecture to transform themselves from private bankers into Grand Dukes of Tuscany, in the process creating the monuments by which we define the Italian Renaissance. Offered only in Florence.  
PREREQ: HOA 105.

HOA 424 Sixteenth Century Italian Art and Identity 3 IR  
Explores how, during the "High Renaissance", works of art were commissioned by patrons using art to create their own public identity. Focuses on paintings and sculpture. How artists defined themselves in relation to Leonardo and Michelangelo. Requires previous course in art history or in any aspect of Renaissance history or culture. Offered only in Florence.  
PREREQ: HOA 105.

HOA 425 Leonardo da Vinci: Artist and Engineer 4 O  
Crosslisted with: ECS 441  
Interdisciplinary exploration of the life and work of Leonardo da Vinci (1452-1519). Supplemented by required field trip to Europe. Special application required.  
PREREQ: HOA 105.

HOA 426 Michelangelo' Italy 4 E  
Exploration of the life and times of Michelangelo Buonarroti (1475-1564). Supplemented by required field trip to Italy. Special application required.  
PREREQ: HOA 105.

HOA 428 Research Problems in Italian Art 3 Y  
Major decorative complexes in Italy from medieval, Renaissance, and baroque periods. Factors that affected their form. Architectural spaces in churches and palaces of Florence. Offered only in Florence.  
PREREQ: HOA 340 OR 421 OR 422.

HOA 430 Northern Renaissance Art: 15th Century 3 O  
Northern European painting, sculpture, and printmaking from the international style in the fourteenth century to Hieronymus Bosch in the late 15th century. Art presented in historical, philosophical, and social contexts of the Northern humanist tradition.  
PREREQ: HOA 105.

HOA 431 Northern Renaissance Art: 16th Century 3 E  
Northern European painting and printmaking of the sixteenth century, beginning with Albrecht Dürer and concluding with Pieter Breughel. Art presented in the context of protestant reformation and northern humanism.  
PREREQ: HOA 105.

HOA 439 French Architecture, Sixteenth and Seventeenth Centuries 3 IR  
Crosslisted with: ARC 433  
Architecture of the Renaissance transported from Italy to France and developed into a specifically French architecture. Outstanding achievements of more than local interest. Additional work required of graduate students.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.

HOA 440 Women in Art 3 IR  
Crosslisted with: WGS 449  
Representation of women in art from prehistoric to contemporary times and the works of women artists in historical contexts.  
PREREQ: HOA 105 OR 106 OR WGS 101.

HOA 445 Baroque Art in Southern Europe 3 O  
Painting and sculpture in Italy and Spain during the 17th century; Caravaggio, the Carracci, Bernini, Poussin, Lorrain, and Velázquez.  
PREREQ: HOA 106.

HOA 446 Baroque Art in Northern Europe 3 E  
Painting and sculpture in Belgium, Holland, and France during the seventeenth century; Rubens, VanDyck, Jordaens, Hals, Rembrandt, Vermeer, Ruisdael, the Le Nains, and Georges de la Tour.  
PREREQ: HOA 106.

HOA 447 Italian Baroque Art and Architecture 3 IR  
Architecture, sculpture, painting, and decorative arts of the Italian Baroque: early, high, and late Baroque styles in Florence, Bologna, Rome, and Venice. Site visits in Florence and study tours of Bologna and Rome. Offered only in Florence.  
PREREQ: HOA 106.

HOA 454 The Architecture of Revolutions 3 IR  
Crosslisted with: ARC 334; Double Numbered with: HOA 654  
Survey of European architectural theory and practice from the seventeenth century to the nineteenth century. Discussion and analysis of major architects, buildings, and architectural treatises, principally from France, England, and Germany. Additional work required of graduate students.

HOA 457 Art and Revolution 3 Y  
Revolution as a dominant cultural force in nineteenth century art. Topics chosen from romanticism and nature, revolutionary France, ideal vision, science and technology. Gothic revival, and impressionism and shaped around current major art exhibits. Offered only in London.  
PREREQ: HOA 106.

HOA 458 Art of Romanticism 3 IR  
Revival movements, landscape painting, romanticism, and realism. Developments from David to Courbet. Sometimes offered abroad.  
PREREQ: HOA 106.

HOA 459 Realism to Symbolism: European Art, 1850-1900 3 IR  
Modernism from the politics of Courbet and the revolutions of 1848 to Munch and social anxiety as the 19th century draws to a close. Realism, Impressionism, Post-Impressionism, Symbolism.  
PREREQ: HOA 106.

HOA 461 Early 20th Century Art 3 IR  
Fauvism and expressionism to cubism and the development of abstraction. Matisse, Picasso, Brancusi, Mondrian, and Kandinsky.  
PREREQ: HOA 106.

HOA 462 European Art Between the Wars 3 IR  
Dada, Surrealism. The utopian movements of Russian Constructivism, the Bauhaus in Germany, and De Stijl in Holland. Movements in art between the wars in the context of political instability, revolution, utopian idealism, the machine aesthetic, and the developing history of the unconscious mind.  
PREREQ: HOA 106.

HOA 463 Modernism & Postmodernism 3 Y  
Trends in twentieth-century art, Postimpressionism, cubism, surrealism. Abstract expressionism. Postmodernism. Shaped around current major art exhibits. Offered only in London.  
PREREQ: HOA 106.

HOA 464 Modern Spanish Art 3 S  
Crosslisted with: SPA 364  
Spanish art and architecture from the late eighteenth century to the present. Goya, succeeding styles and movements to the modernism of Picasso, Miro, and Dali, and later styles. The architecture of Gaudi. Offered only in Madrid.  
PREREQ: SPA 201 OR SPA 202 OR (SPA 300 OR ABOVE).

HOA 470 Experience Credit 1-6 SI  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

HOA 473 London Museums: Art, History and Science in Contemporary Culture 3 S  
A survey of London museums that examines not only the collections, architecture, and approaches to interpretation of these institutions of culture, but also considers wide-ranging contemporary issues within the larger museum world. Offered only in London.

HOA 475 Modern Architecture: The International Style to Present 3 IR  
Crosslisted with: ARC 436  
Architecture of the modern period since World War II. Major works and figures as framed by the larger architectural issues of the period. Additional work required of graduate students.  
PREREQ: HOA 105 OR 106 OR ARC 134 OR CAS 134.

HOA 479 Early Modern Architecture 3 IR  
Crosslisted with: ARC 431  
Early modern architecture from the 1890s through the 1930s. Additional work required of graduate students.  
PREREQ: HOA 105 OR 106 OR ARC 134 OR CAS 134.

HOA 482 Art and Environment in American Culture Since 1800 3 IR  
Crosslisted with: GEO 347  
Visual arts and environmental concern in the U.S. from the early national period to the present. Emphasizing diversity of artists and forms, the changing cultural constructions of nature, and tracing an ecological tradition in art.

HOA 490 Independent Study 1-6 SI  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

HOA 498 Senior Seminar: Research and Professional Practice 3 Y  
Research, writing, and career exploration for senior art history majors. Students develop, edit, and revise texts spanning professional practices in art history.

HOA 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

HOA 500 Selected Topics 1-3 S  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HOA 510 Italian Medieval Architecture and Urbanism 3 S  
Crosslisted with: ARC 537  
Investigates sites, buildings, and rituals of local identity in a range of centers including monasteries, castles, hilltowns, ports, republics, and tyrannies, between 300 and 1400. Trips to Umbria and Sicily. Offered only in Florence.  
PREREQ: HOA 105 OR ARC 134 OR CAS 134.

HOA 520 Italian Urbanism: 100 Cities 3 IR  
Crosslisted with: ARC 536  
A survey of Italian urban history: design of cities, local rituals, politics, and patronage in ancient Rome, medieval Venice, Renaissance Florence, Baroque Turin, and modern Milan. Site visits in Florence and surrounding towns. Offered only in Florence.  
PREREQ: ANY HOA 100-499.

HOA 522 Botticelli: Analysis in Depth 3 IR  
Botticelli within the socio-artistic context of 15th-century Florence. Portraiture, classical myths, civic propaganda, gender, and religious narrative. Offered only in Florence.  
PREREQ: HOA 105.

HOA 530 History of Printmaking 3-4 IR  
Fifteenth-century to present day woodcuts, engravings, etchings, aquatints, lithographs, and monotypes. Dürer, Rembrandt, Goya, Blake, Daumier, Whistler, and others.  
PREREQ: HOA 105 OR 106.

HOA 531 Paper Arts in the Low Countries 3 IR  
This course examines the production of drawings and prints, mainly in Flanders (modern-day Belgium) and the Netherlands during what is known as the early modern period: 1400-1700.

HOA 540 17th Century Dutch Painting 3-4 IR  
Principal Dutch masters (Rembrandt, Hals, Vermeer, Ruisdael, etc.). Developments in landscape, genre, still life, portraiture, and history painting.  
PREREQ: HOA 105 AND 106.

HOA 541 Art and Ideas in the 17th Century 3-4 IR  
Crosslisted with: HOM 541  
A consideration of music, literature, and the visual arts in the context of 17th-century life. A study of the interrelationship of the main forces in society and their expression in the arts.  
PREREQ: (HOA 105 AND 106) OR (HOM 165 AND 166).

HOA 556 Problems in Art History 3-4 Y  
Selected period, major figure(s) or monument(s) in painting, sculpture, or architecture.  
PREREQ: HOA 105 AND 106. R3, 16 credits maximum

HOA 560 Arts and Ideas in the Nineteenth Century 3-4 IR  
Crosslisted with: HOM 560  
Music and the visual arts in 19th-century European culture.  
PREREQ: (HOA 105 AND 106) OR (HOM 165 AND 166).

HOA 571 Italian Architecture, 1909-1959 3 S  
Crosslisted with: ARC 539  
Italian architecture from the birth of Futurism to the end of the post-WWII reconstruction. Representative structures in Milan, Rome, Como, and Florence. Includes overnight trip to Rome. Offered only in Florence.  
PREREQ: HOA 106 OR ARC 134 OR CAS 134.

HOA 575 Arts and Ideas in Contemporary Culture 3-4 IR  
Crosslisted with: HOM 575  
Place of music and the visual arts in the context of contemporary life. Inter-relationship between the main forces of society and their expression in the arts.  
PREREQ: HOA 106 OR HOM 166.

HOA 576 Topics in American Art 3-4 O  
Critical exploration of an important American movement, theme, period, or artist. Emphasizing discussion and recent scholarship. Topic announced each semester.  
PREREQ: HOA 106 OR 276 OR ANY HOA 300 LEVEL.

HOA 577 Introduction to Preservation 3 Y  
Crosslisted with: ARC 566  
Problems and methods in implementing continued use for quality segments of the humanly built environment.  
PREREQ: ARC 134 OR CAS 134.

## History Of Music

HOM 100 Selected Topic 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R, 999.90 credits maximum

HOM 125 Introductory Music Theory 3 Y  
Crosslisted with: MTC 125  
Elementary harmony, form and counterpoint through writing and listening. For non-majors and music theatre majors only.

HOM 165 Understanding Music I 3 Y  
Introduction to the art of music. Development of musical styles in the West from ancient Greece through the Middle Ages and Renaissance. Assumes no prior musical knowledge.

HOM 166 Understanding Music II 3 Y  
Introduction to the art of music. Musical styles from early baroque to the 20th century, stressing the characteristic interests and achievements of each historical epoch. Assumes no prior musical knowledge.

HOM 180 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HOM 195 Performance Live 3 Y  
The art and meaning of music/dance performance through dialogue with performers in the classroom and experience of performances in local settings, emphasizing both western and non-western traditions. No musical experience necessary.

HOM 200 Selected Topics 1-3 S  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HOM 202 Arts of Italy 3  
Crosslisted with: HOA 202  
Selected aspects, drawing on appropriate resources in architecture, museums, and/or musical performance in immediate geographical area. Offered only in Florence. Specific topics determined each semester.

HOM 206 Arts of France 3

Crosslisted with: HOA 206

Selected aspects, drawing on appropriate resources in architecture, museums, and/or musical performance in immediate geographical area. Offered only in Strasbourg. Specific topics determined each semester.

HOM 207 Arts of England 3

Crosslisted with: HOA 207

Selected aspects, drawing on appropriate resources in architecture, museums, and/or musical performance in immediate geographical area. Offered only in London. Specific topics determined each semester.

HOM 209 Arts of Spain 3

Crosslisted with: HOA 209

Introduction to the art, architecture, music, and dance of Spain. Museum, gallery, and site visits. Concert, dance, and other performances. Topics vary. Offered only in Madrid.

HOM 266 History of European Music before 1750 3 Y

Crosslisted with: MHL 168

European music before 1750 in its cultural and philosophical contexts. Extensive listening. Analytical focus on selected composers and works. Presupposes familiarity with musical notation, terms, and contexts.

HOM 267 European Music from 1750-1914 3 Y

Crosslisted with: MHL 267

European music from 1750 to 1914 in its cultural and philosophical contexts. Extensive listening. Analytical focus on selected composers and works. Presupposes familiarity with musical notation, terms and concepts.

HOM 268 European and American Music Since 1914 3 Y

Crosslisted with: MHL 268

Major trends and figures in art music in the United States and Europe since 1914. Topics include nationalism, neoclassicism, serialism, indeterminacy, and minimalism. Assumes basic knowledge of music.

PREREQ: ANY HOM 100-699 LEVEL OR ANY MHL 100-699 LEVEL.

HOM 280 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HOM 285 Introduction to World Music 3 Y

Crosslisted with: MHL 185

Introduction to world music in its social, political, and cultural contexts, with an emphasis on building listening and analytic skills. Intended primarily for music and music history and culture majors.

HOM 290 Independent Study 1-6 IR

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

HOM 300 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HOM 313 Film Music 3 IR

Survey of film music, from the era of silent film to the present day.

HOM 315 History of Recorded Sound 3 IR

The history of sound recording technology from its origins to the present day.

HOM 325 Music in Latin America 3 E

Music of Latin America in its cultural, historical, and political contexts. The course uses instruments, rhythms, and movements as starting points to explore issues of migration, urbanization, nationalism, race and ethnicity in Latin America.

HOM 326 Music in the Caribbean 3 O

Music of the Caribbean region in its cultural, historical, and political contexts. The course uses instruments, rhythms, and movements as starting points to explore issues of migration, urbanization, nationalism, race and ethnicity in the Caribbean.

HOM 353 Worlds of Dance 3 O

A cross-cultural exploration of dance cultures of the world. The structure, organization, meaning, and expressive power of dance and its connection to belief systems, politics, social organization, and aesthetic ideas.

HOM 361 Topics in European Music 3 IR

Selected works, genres, movements or topics in the history of European music. Development of musical style, analysis of social and political relationships. Specific areas of study announced each semester. R1, 6 credits maximum

HOM 362 Symphonic Music 3 IR

History of symphonic music from the 18th century to the present. Development of musical style in its social and intellectual contexts. Musical expression and meaning. Sometimes offered abroad.

HOM 363 Opera in Society 3 E

Opera as an art form and as a mirror of social attitudes from its inception to the present. Relationships between music and the stage in various historical settings. Sometimes offered abroad.

HOM 364 The London Classical Musical Scene 3 Y

Varieties of classical music. Styles of performance and social traditions of music unique to and currently represented in London's musical life. Includes some required attendance at musical events. Offered only in London.

HOM 371 Topics in American Music 3 IR

Studies of the social, cultural, and musical forces at work in both serious and popular music in America. Specific areas of study announced each semester. R1, 6 credits maximum

HOM 372 Music in Multicultural America 3 IR

Issues, concepts, and processes that have shaped ethnic musical subcultures in the U.S., with case studies such as the pow-wow, gospel blues, conjunto, klezmer, and South Asian bhangra musics.

HOM 373 History of Musical Theater 3 IR

Musical theater within a larger cultural context. European roots of musical theater before turning to an analysis of Anglo-American musical theater in the 20th and 21st centuries.

HOM 375 American Music 3 O

Celebrates the rich history of music in the United States from the earliest times to the present. Cultivated, vernacular, and folk traditions as reflections of the American musical landscape.

HOM 377 History of Jazz 3 O

The roots, development, and diffusion of jazz music.

PREREQ: ANY HOM OR MHL COURSE 100-499.

HOM 378 Rock Music 3 E

The roots, development, and diffusion of rock music.

PREREQ: ANY HOM 100-499 LEVEL OR MHL 100-499 LEVEL.

HOM 380 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R90

HOM 381 Topics in Ethnomusicology 3 IR  
Selected topics in the study of the performing arts in their cultural and social contexts, focusing on, e.g., geographic areas, genres, instruments, or cross-cultural topics. R1, 6 credits maximum

HOM 384 Music and Dance of India 3 O  
Crosslisted with: SAS 385  
Selected music and dance traditions of India in their cultural, historical, and performative contexts, representing classical, devotional, folk, tribal, and popular arts. Performance as a window into Indian culture, society, and modernization.

HOM 385 Structure and Meaning in World Music 3 IR  
Advanced topics in world music focusing on music cultures of Asia, Africa, and the Americas. Sound structure, style, transmission, cultural context, and meaning.  
PREREQ: HOM 195 OR 285 OR MHL 185.

HOM 386 Sounds of the Silk Road 3 IR  
Crosslisted with: MES 386, SAS 386  
The soundscapes of the overland Silk Road as a window into history, commerce, migration, social life, values, faith, tolerance and conflict. Case studies from Turkish, Arabic, Persian, Central Asia, and Southwest Asia musics.

HOM 396 Junior Seminar: Musicology in Action 3 Y  
Students engage with music institutions and music communities in Central New York and beyond. Development of music research and writing skills.

HOM 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HOM 419 Music and the Media 3 O  
A critical study of contemporary music and media in a variety of contexts, including radio, recordings, television, film and cyberspace.

HOM 453 Dance in American Culture 3 O  
Varieties of dance in the United States today; issues of racial, regional, gender, national and other identities in the practice of American dance.

HOM 470 Experience Credit 1-6 IR  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R90

HOM 473 Women, Rap and Hip-Hop Feminism 3 Y  
Crosslisted with: WGS 473  
Links between feminism, rap music and hip-hop culture. We explore the work of actual women in hip-hop, images of women, and feminist critiques of the music and the culture. Additional work required of graduate students.

HOM 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HOM 482 The Roots of Global Pop 3 E  
The development of world popular music throughout the 20th century in the contexts of colonization, modernization, resistance, nationalism, and globalization. The sounds and production values of global fusions and issues of authenticity, identity, and appropriation.  
PREREQ: ANY HOM 100-699 LEVEL OR ANY MHL 100-699 LEVEL.

HOM 485 Contemporary Indigenous Soundscapes 3 IR  
Double Numbered with: HOM 685  
An interdisciplinary course about music and dance cultures of the world's indigenous peoples in the context of contemporary social, cultural, and political issues: religion, identity, representation, globalization, tourism, political movements. Additional work required of graduate students.

HOM 490 Independent Study 1-6 SI  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

HOM 492 Music and the Sacred 3 O  
Crosslisted with: REL 392  
Intersection of music and the sacred in a variety of cultural traditions and historical periods.

HOM 493 Music and Identity 3 IR  
A critical study of the intersections of music and various types of identities in the world today, such as individual, ethnic, gender, religious, national, and commercial.

HOM 494 Music and Gender 3 E  
Crosslisted with: WGS 494  
The impact of gender ideology and behavior on the performing arts and the role of performance in maintaining and subverting gender identities and relations.

HOM 496 Distinction Project in Music History and Cultures 3 SI  
Supervised independent research culminating in a large-scale project demonstrating fluency with musical research and writing to fulfill partial requirements for Distinction in the Music and History Cultures Program. Candidates for distinction in the Music History and Cultures major only.

HOM 497 Music and Politics 3 IR  
Western art music, popular music, and world music as political/ cultural forces. Music as a political discourse. Music and meaning.

HOM 498 Intersections in Popular and Classical Music 3 IR  
An in-depth look into the intersections of popular and classical musics of the twentieth and twenty-first centuries. Particular attention is paid to moments that exhibit tensions and slippage between the two categories.

HOM 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HOM 512 World Music and Film 3 IR  
The global flows of music explored through commercial, ethnographic, documentary, and animated films. How music and musicians outside the Euro-American mainstream have been represented, creatively adopted and recontextualized, and used to construct meaning.  
PREREQ: ANY HOM 100-699 LEVEL OR ANY MHL 100-699 LEVEL.

HOM 541 Art and Ideas in the 17th Century 3-4 IR  
Crosslisted with: HOA 541  
A consideration of music, literature, and the visual arts in the context of 17th-century life. A study of the interrelationship of the main forces in society and their expression in the arts.

HOM 560 Arts and Ideas in the Nineteenth Century 3-4 IR

Crosslisted with: HOA 560

Music and the visual arts in 19th-century European culture.

HOM 561 Music and Shakespeare 3-4 IR

Crosslisted with: DRA 561

A discussion-based course investigating the place of music in Shakespeare's plays. Also considers the role of music in early modern English culture as well as later musical adaptations of Shakespeare.

HOM 562 Bach and Handel 3 IR

Explores the careers and compositional output of Bach and Handel. Considers issues of genre, style, theology and religion, nationhood, and patronage.

PREREQ: ANY HOM 100-699 LEVEL OR ANY MHL 100-699 LEVEL.

HOM 563 The Operas of Wagner 3 O

The historical analysis, interpretation, and reception history of Wagner's musical and dramatic work.

PREREQ: HOM 165 OR 166 OR 266 OR HOM/MHL 267 OR MHL 168.

HOM 568 Music of Beethoven 3 IR

Life and works of Beethoven in their social context. Beethoven as cultural symbol and in the development of style. Intensive focus on specific works.

PREREQ: MTC 146. R1, 6 credits maximum

HOM 571 Popular Music Studies 3 IR

A research seminar in the study of popular music with emphasis on methodologies from a variety of disciplines ranging from musicology and music theory to sociology and cultural studies.

PREREQ: ANY HOM 100-699 LEVEL OR ANY MHL 100-699 LEVEL.

HOM 573 History of American Song 3 IR

The American art song, emphasizing the 20th-century composers. Musical style of works, placed in their social and cultural contexts.

PREREQ: MTC 146.

HOM 575 Arts and Ideas in

Contemporary Culture 3-4 IR

Crosslisted with: HOA 575

Place of music and the visual arts in the context of contemporary life. Inter-relationship between the main forces of society and their expression in the arts.

HOM 592 Music, Space and Place 3 IR

An exploration of the relationships between music, space and place, considered from a variety of musical practices and scholarly methodologies.

## History

HST 101 American History to 1865 3 Y

Founding and development of institutions. The Revolution and the new nation. Problems of growth and sectionalism. Challenge to the union.

HST 102 American History Since 1865 3 Y

Reconstruction. Industrialization and its effects. Emergence as a world power. Economic and social problems, reforms. Global war and global responsibilities.

HST 111 Early Modern Europe, 1350-1815 3 Y

Major characteristics of European political, social, and cultural life from Middle Ages to advent of democratic revolutions.

HST 112 Modern Europe: Napoleon to the Present 3 Y

European lives and experiences in the age of industrialization, urbanization, and mass politics. World wars, fascism, the Russian Revolution, empires, Europe in the post-World War II era.

HST 121 Global History to 1750 3 Y

The development of global society up to 1750. Exchanges, connections and interactions between Africa, Asia and the Pacific, India, Latin America and the Caribbean, and the Middle East. The relations between these regions, the Americas and Europe.

HST 122 Global History 1750 to Present 3 Y

The development of global society since 1750. Exchanges, connections and interactions between Africa, Asia and the Pacific, India, Latin America and the Caribbean, and the Middle East. The relations between these regions, the Americas and Europe.

HST 145 Introduction to Historical Archaeology 3 Y

Crosslisted with: ANT 145

Role of history and archaeology in our understanding of 17th- to 19th-century Europe, Africa, and America. Historical archaeology as a mechanism to critique perceptions of the past. Firsthand record of ethnic groups and cultural settings not recorded in writing.

HST 180 International Course 1-6

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HST 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HST 201 Research Seminar in History 3 IR

Introduction to the excitement and techniques of original research. Each seminar begins with introductory readings in a particular area of history; each student researches a question in original sources and presents the results in one or more essays.

HST 210 The Ancient World 3 Y

The Ancient Mediterranean emphasizing major political, cultural, religious, and social developments. The Near East, Classical Greece, Hellenistic Civilization, Roman Republic, Roman Empire up to the fourth century A.D. May not be repeated for credit.

HST 211 Medieval and Renaissance Europe 3 Y

Survey of developments from the end of the Roman Empire to the beginnings of the Age of Discovery. Considers political and economic developments, as well as society, culture, and religion.

HST 222 History of American Sexuality 3 Y

Examines sexuality in America from the colonial period to the present, exploring how American views of sex and desire have changed over time.

HST 231 English History 3 IR

Britain from the Roman occupation through the Revolution of 1688.

HST 232 English History 3 IR

Continuation of HST 231 from 1688.

HST 270 Experience Credit 1-6 Y

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

HST 280 International Course 1-12 Y  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HST 290 Independent Study 1-6 Y  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

HST 295 The Development of Air Power: First 50 Years 0-1 Y  
Crosslisted with: ASC 295  
Factors contributing to change in the nature of military conflict, the development of air power from its earliest beginnings, and the way air-power doctrine has evolved.

HST 296 The Development of Air Power: 1947 to the Present 0-1 Y  
Crosslisted with: ASC 296  
The development of air power from the end of World War II to the present. How air power is used in support of both military and nonmilitary national objectives.

HST 300 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HST 302 Early American History 3 IR  
European invasion of America. Native American resistance. Institutions of conquest, colonization, and empire. Anglicization of the colonists and the acculturation of the Iroquois. Servitude, slavery, and the family.

HST 303 The Age of the American Revolution 3 IR  
Provincial America, its peoples, and their societies. Imperial war and administration. Anglo-American politics and dissent. The war of national liberation. Confederation; formation of the Constitution.

HST 304 Age of Jefferson and Jackson 3 IR  
Development of political parties and institutions from 1789 to 1850. Impact of major figures, such as Jefferson and Jackson. Social and economic factors.

HST 305 America in Crisis: The Civil War and Reconstruction 3 Y  
Coming of the Civil War, leading figures in the crises, and problems of reconstructing the divided nation.

HST 306 The Long Civil Rights Era 3 Y  
Explores the development of social and political protest for civil rights from World War I through the 1970's.

HST 307 The United States in the Modern Age, 1917-1963 3 IR  
World War I. Social/political development in the twenties. Impact of the Depression. Roosevelt and the New Deal. World War II. Cold War, McCarthyism, private culture of the fifties, emergence of the Civil Rights movement.

HST 308 Recent History of the United States, 1963-Present 3 Y  
The Great Society. Domestic ferment in the sixties. Vietnam. Watergate. Economic defeats of the seventies and eighties. Ronald Reagan's America. The politics of the nineties and the shaping of new prosperity.

HST 310 The Early Middle Ages 3 IR  
History of Western Europe from c. 300 to c. 850. Political, religious, cultural, social, and economic developments. Special emphasis on reading and analyzing primary sources.

HST 311 Medieval Civilization 3 Y  
Political, economic, religious, cultural history of Europe 800-1200, including the fall and rise of royal authority, disagreements over the roles of church and king, economic change, developing ideas and technologies, the rise of cities.

HST 312 Reformation of the 16th Century 3 IR  
Protestant and Catholic Reformations. French Civil Wars, social foundations of modern religious denominations, and historical psychology of religious conversion experiences.

HST 313 French Revolution: Sun King to Guillotine 3 Y  
How the Europe of Bach, Mozart, Voltaire, and Frederick the Great became the Europe of Beethoven, Goethe, the French Revolution, and Napoleon.

HST 314 Europe from Bismarck to the First World War 3 IR  
Domestic development and foreign relations of major European states. Industrialization, urbanization, emergence of mass political parties, socialism and class conflict, social reform, growth of nationalist loyalties, imperialism, causes of World War I.

HST 315 Europe in the Age of Hitler and Stalin 3 Y  
World War I as the great divide. Why fascism, crisis for democracies, Soviet dictatorship and its impact on Europeans, and World War II emerged one generation later.

HST 316 Europe Since 1945 3 IR  
History of Europe from the fall of the Nazi-led 'New Order' to the present. Cold War in East/West Europe, economic growth/social change, decolonization, welfare state, fall of Communism, European Union, and contemporary Europe.

HST 318 The Middle East to 1900 3 IR  
Crosslisted with: MES 318  
Beginning with the rise and spread of Islam through the reform era of the nineteenth-century, this course focuses on the social and cultural history of the Ottoman Empire.

HST 319 The Middle East in the 20th Century 3 IR  
Crosslisted with: MES 319  
Social and cultural history of the Middle East in the twentieth-century, including themes such as colonialism, anti-colonial nationalism, modernity, social movements, women and gender, and contemporary issues.

HST 320 Traditional China 3 Y  
Political, economic, social and cultural history before 1650. Emphasis on sources of change and stability. Main themes: Confucianism, Buddhism, and Daoism; invasion and rebellion: conquest and consolidation. May not be repeated for credit.

HST 321 Modern China 3 Y  
Political, economic, social and cultural history since 1650. Main themes: Social change in city and countryside, impact of Western nations, enduring legacies of traditional China.

HST 322 Colonial Latin America 3 Y  
Crosslisted with: LAS 322, SPA 325  
Development of Amer-Indian civilization and the Spanish conquests. Evolution of the Spanish American economy and the unique American culture. Growth of the plantation economy of Brazil. The movements toward independence.

HST 323 Modern Latin America 3 Y  
Crosslisted with: LAS 313  
The turmoil of the postindependence period and the search for economic and political stability. Reasons for and consequences of export-led growth. The role of the United States in preserving the status quo in the Americas.

HST 324 Recent Latin American History 3 IR

Crosslisted with: LAS 324

Developments since World War I. Political, economic, and social change and growth of nationalism.

HST 325 Africa to 1800 3 Y

Crosslisted with: AAS 325

The first half of a two semester survey focusing on the evolution of African cultures and civilization in the traditional period. Topics: the emergence of man, migration of peoples, economic and social systems, state formation, the slave trade. Arabic influences and the early European settlement in South Africa.

HST 326 Africa Since 1800 3 Y

Crosslisted with: AAS 326

Second half of the survey, studying Africa when it was affected by European peoples and cultures. Topics: penetration by European explorers and missionaries, imperialism and colonialism, African resistance and rebellion, nationalism and liberation, neocolonialism and other problems of independence.

HST 327 A History of Southern Africa 3 IR

Begins before arrival of Europeans in southern Africa. Economic, geographic, sociological, and political factors contributing to development of this unique, racially based modern state. Includes Afrikaaner diaspora, Euro-African conflict during the nineteenth century, Anglo-Boer War, from union to apartheid, and resistance to European domination.

HST 328 Ancient and Medieval India 3 Y

Crosslisted with: SAS 328

Formation of traditional Indian kinship, religion, philosophy, and culture. Vedic society and the rise of Buddhism. Medieval Hindu kingdoms. Expansion and the legacy of Islam. Rise and disintegration of the Mughal empire.

HST 329 Making of Modern India 3 Y

Crosslisted with: SAS 329

British colonial expansion in India. Emergence of nationalism and related movements of religious, social, and cultural reform. Gandhi and non-violence. Struggle for independence and the politics of gender, class, caste, and religious community.

HST 330 The Iroquois 3 IR

The People of the Longhouse, the Five (afterwards Six) Nations, their archaeology, tradition, and history, from 1100 to 1815. May not be repeated for credit.

HST 332 African American History: Through the 19th Century 3 Y

Crosslisted with: AAS 332

Cultural, economic, political, and social developments shaping experiences of North Americans of African descent. Foundations of collective identity and diversity. African American historiography. Interpretive and methodological issues in historical practice.

HST 333 African American History: After the 19th Century 3 Y

Crosslisted with: AAS 333

Continuation of AAS/HST 332.

HST 334 Social and Cultural History of the United States 3 IR

Social and cultural developments, 1607-1861. American population growth, rural and urban life, religion, education and learning, literature and the arts.

HST 335 American Social and Cultural History 3 IR

Crosslisted with: WGS 335

Nature of "American character" through the last century. Aspects of intellectual life, social mores, industry, and art that represent Americans' definitions of themselves and their nation.

HST 336 United States in World Politics to 1914 3 IR

American diplomacy to 1914.

HST 337 America in the World: The History of U.S. Foreign Relations, 1898-Present 3 IR

This course examines the history of U.S. foreign relations from 1898 to the present. It focuses on the political, economic, ideological, and cultural influences on U.S. foreign policy and the implications of American power broadly defined.

HST 338 History of the Southern United States to 1865 3 IR

Development of Old South society, economy, culture, and politics through readings, lectures, and discussions. First part of two-course survey of Southern United States.

HST 339 History of the Southern United States Since 1865 3 IR

Development of southern society, economy, culture, and politics after the Civil War. Readings, lectures, and discussions. Second part of a two-course survey of the Southern United States.

HST 340 Women in America: 17th Century to the Civil War 3 Y

Crosslisted with: WGS 342

Focus on significant social and political transformation, activism, and individuals

HST 341 The Modern American Presidency 3 Y

Crosslisted with: PSC 329

Evolution, operation, and perceptions of the American presidency during the last quarter-century. Modern chief executives and factors contributing to their success or failure.

HST 342 Modern American Political Thought 3 IR

Crosslisted with: PSC 327

American political thought from the impact of Darwinian science to the present. Basic thought patterns of 20th-century public life and philosophical foundations of contemporary political movements.

HST 343 History of New York State 3 IR

New York's development since 1850, with special attention to the industrial order on its society, government, politics, and social thinking. Primarily for prospective teachers.

HST 345 Workers and Organized Labor in U.S. History, 1840 to Present 3 IR

The history of American workers and their efforts at protesting the transformation of the U.S. economy. The Knights of Labor, the A.F.L., the I.W.W., and the C.I.O. Forms of dissent: culture, violence, and radicalism law.

HST 347 Modern American Politics Through Fiction 3 IR

The political culture of modern America through the medium of popular fiction. Writing intensive and discussion based class, with enrollment limited to 20 Honors students.

HST 348 Queering the Middle Ages? 3 E

Crosslisted with: QSX 348

This course introduces students to the models and methods developed in the field of queer theory and applies them to a wide range of medieval texts (letters, novels, monastic rules, medieval historiography, legal texts etc.).

HST 349 Women in America: Civil War to Present 3 Y

Crosslisted with: WGS 349

Focus on significant social and political transformation, activism, and individuals.

HST 352 History of Ancient Greece 3 Y

Ancient Greek political, economic, social, and cultural history based on interpretation of primary sources, both literary and archaeological, from the Bronze Age through Alexander the Great.

HST 353 History of Ancient Rome 3 Y  
Ancient Roman political, economic, social, and cultural history based on interpretation of primary sources, both literary and archaeological, from the foundation of the city to the dissolution of the Empire in the west.

HST 354 Decline and Fall of the Roman Empire 3 Y  
The late Roman Empire and the Mediterranean world from c.200 to c.700. Political, religious, cultural, social history. Rise of Christianity, transformation of classical culture, and the so-called Decline and Fall of Rome.

HST 355 The Italian Renaissance 3 Y  
Renaissance in Italy, between 1330 and 1500. Political, economic, and intellectual developments. Also offered regularly abroad.

HST 356 Italy Since 1600 3 IR  
History of Italy from the end of the Renaissance to the present. Struggle for unification, rise of fascism, and transformations of postwar Italy.

HST 357 Culture and politics in Early Modern England: Henry VIII to Charles I 3 Y  
Renaissance and Reformation in 16th-17th century England. Transformation of politics, culture, and society from Henry VIII through the reign of Charles I, 1485-1649.

HST 358 Revolution and Civil War in 17th Century England 3 IR  
Emergence of modern England, 1603-1714. Triumph of parliamentary institutions, development of capitalism, and beginning of the empire. Intellectual and cultural change: transition from religious controversy to the age of reason.

HST 359 Modern Britain 1850 to the Present 3 IR  
Political, cultural, and intellectual history of Britain from 1850. Considers the idea of Britishness as national identity, cultural construct, or imperial discourse. Questions the meaning of modernity as a model for change.

HST 360 Modern France from Napoleon 3 IR  
Political turbulence as the legacy of revolution and empire. Lushness and crisis. Peasants, workers, city people, army officers, psychiatrists, and priests. France in the age of total war.

HST 361 Germany to World War I, 1770-1918 3-4 IR  
Causes and consequences of the first unification of Germany: Authoritarian and military characteristics of Prussia. Its response to modern challenges. Bismarck's unification of Germany under Prussia. Strengths and weaknesses of the new German Empire. Overthrow in 1918.

HST 362 Nazi Germany and the Holocaust 3-4 Y  
Crosslisted with: JSP 362, QSX 362  
Rise of Nazism, fall of the Weimar Republic, fascist ideology, everyday life under Nazism for "Aryans," Jews, disabled people, Roma, gay people, Afro-Germans, others. Planning for genocide, the Holocaust, reactions and memories after 1945.

HST 363 Germany Since 1945 3-4 IR  
Aftermath of World War II. Development of a corporatist form of capitalist democracy in West Germany and a communist state in East Germany, 1945-1989. Burdens from the Nazi past. Unification in 1990. The current scene.

HST 364 The Origins of Modern Russia 3-4 IR  
Russian history from Muscovy to the Revolution of 1905, with an emphasis on political institutions, the stratification of society, and the growth of the intelligentsia.

HST 365 Russia in the Twentieth Century 3-4 IR  
A survey of Russian history from the Revolution of 1905 to the present, including WW I and revolutions of 1917, Leninism, Stalinism and the collapse of the USSR.

HST 367 Plague to AIDS 3 Y  
Examines the social, institutional, political, and cultural dimensions of disease, healthcare and medicine in Europe from the early modern period to the present day.

HST 368 Islam and the West 3  
Crosslisted with: MES 368, PSC 368  
Topics include globalization and interdependency of faiths, the "clash of civilizations", relations between religion and state in Islam and Christianity and whether it is possible to separate the world into monolithic entities "Islam" and "West". Offered in London only.

HST 369 The World at War: 1914-1918, 1939-1945 3 Y  
Major developments in military history of World War I and World War II. Film as one tool for understanding nature and scope of conflicts that changed the world.

HST 371 Gender in Latin American History 3 IR  
Crosslisted with: LAS 371, WGS 371  
History of women and gender relations from colonial period to the present. Influence of race, class, and ethnicity on gender. Relation of gender to labor, family, sexuality, and politics.

HST 372 Race in Latin America 3 IR  
Crosslisted with: LAS 372, NAT 372  
Race relations in Latin America from the late colonial era to present. Indigenous, immigrant, and Afro-Latin American experiences and how they have changed over time. Relations of race to national identity.

HST 375 British Empire 3 IR  
Crosslisted with: SAS 375  
Seminar on expansion of the British Empire (emphasis on India and Africa) in the 18th and 19th centuries. Explores histories of conquest, administration and imperial policy, and the ideologies of imperialism and colonialism.

HST 376 Renaissance London (Honors) 4  
History and development of London in the 16th and 17th centuries. Topics include the visual arts; cultural, economic, and social change; literature and the theater; crime; architecture; and royal politics and government.

HST 377 History of Venice 3 Y  
History of the city of Venice from its origins to the present. Considers Venice as an independent republic and imperial power and its significance in the Western imagination.

HST 378 Early Modern Mediterranean 3 Y  
Focus on Ottomans, Italy, France, Iberia, North Africa, 1348-1789. Topics include international relations and empire-building in Africa, Asia, and Europe; commerce, piracy, plague, religion, family/sexuality, architecture, political and cultural developments during Renaissance, Age of Discovery Enlightenment.

HST 379 Gender, Race, and Colonialism 3 IR  
Crosslisted with: WGS 379  
Explores the intersection of gender and race in colonial ideologies, imperial practices and anti-colonial nationalist movements, in the 18th and 19th centuries.

HST 380 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HST 383 Foundations of American Political Thought 3 IR  
Crosslisted with: PSC 326  
American political thought from the Puritans to Lincoln. American Revolution, establishment of the Constitution, and Jeffersonian and Hamiltonian systems.

HST 384 American Environmental History and Geography 3 Y  
Crosslisted with: GEO 354  
Relationship between Americans and the natural environment from the colonial period to the present. Ecological imperialism, technology and nature, resource-management conflicts, urban environments, development of conservation and environmentalism.

HST 385 United States Legal History, 1620 to Present 3 IR  
The role of law in American history from the colonial period to the present. The common law, the Constitution, the market revolution, slavery and emancipation, laissez-faire, legal realism, the New Deal, and civil rights.

HST 386 Crime and Society in American History, 1620 to Present 3 IR  
The history of American deviance and dissent from colonial Massachusetts to the present. Social transformation and the rise of urban crime. The changing role of the state. Police, radicalism, alcohol, vice, sexuality, and organized crime.

HST 387 Women, Abolition, and Religion in 19th Century America 3  
Crosslisted with: REL 341, WGS 341  
The role that religion may have played in women's understandings of themselves as abolitionists and social reformers. A selected group of women will be studied, with considerable attention given to Frances Harper.

HST 388 Vietnam: Movies, Memoirs and the Shaping of Public Memory 3 Y  
An exploration of Vietnam in public memory through film and personal memoirs.

HST 389 LGBT History 3 IR  
Crosslisted with: QSX 389, WGS 389  
The history of lesbian, gay, bisexual, transgender experience in period and region (North America, Europe, or Global) of instructor's expertise, with attention to the international context..

HST 390 Independent Study 1-6 SI  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

HST 391 Mary Magdalene: History of a Legend 3 IR  
Examines legends surrounding Mary Magdalene, from New Testament to Da Vinci Code. Uses diverse primary sources and scholarship; traces the legend's evolution and examines its changing significance.

HST 392 History of the Holocaust 3 Y  
Crosslisted with: JSP 392  
Study of the events and issues of historical interpretation in the Holocaust, 1933-1945. Attitudes and behavior of Nazi perpetrators, Jewish victims, and bystanders.

HST 393 East Asia and the Socialist Experience 3 Y  
Examines the adoption of socialism in East Asia. Historical account of how socialism China, Mongolia, North Korea and Vietnam arose, developed, "failed" and responded to globalization in the 20th century.

HST 394 Partition of India in Film 3 Y  
Crosslisted with: SAS 394  
Explores the partition of India in 1947 through South Asian films.

HST 395 Modern Japan 3 O  
Examines Japanese society from early-modern times (1600-1868) through modern (1868-1945) and postwar Japan (1945-today). Topics include: urbanization, mass culture and nationalism, popular protest, imperialism and empire, gender, war and occupation and globalization.

HST 396 Women and the American Frontier 3 Y  
Crosslisted with: WGS 396  
The North American frontier, from the 17th to the early 20th century, as it was experienced by women of various cultural and national origins.

HST 397 Modern Korea 3 E  
Examines political, economic and social history from 1860 until today. Topics include: colonialism, modernity, division, the Korean War, nation-building, nationalism, democratization, North Korean society, inter-Korean affairs, nuclear issues, Korean Diaspora and "Korea Wave."

HST 398 Saints and Sinners in the Middle Ages 3 Y  
Investigates notions of sanctity and modes to impose morality and social discipline in the medieval period. Reading narrative texts (esp. saints lives and literary texts) as historical sources.

HST 399 Utopia and Institution: Early Monasticism 3 IR  
Investigates the rise of monasticism in the West as a case study on institution forming and the attempts to organize perfect life in a community..

HST 400 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HST 401 Senior Seminar 3 Y  
Research techniques in the use of source material and historical evidence. Preparation of original research paper. Satisfies research requirement for history majors and minors. R1, 6 credits maximum

HST 402 Slavery and Abolition 3 Y  
Crosslisted with: AAS 402  
Evolution and diverse character of North American slavery and antislavery. Slavery as labor, legal, and property system, cultural and political phenomenon, and social and economic network. Politics and ethics of abolition.

HST 403 American History Through Documentary Film 3 Y  
Compares the presentation of US history through documentary film and traditional written sources. Special attention is given to telling history as an act of public memory.

HST 404 Family and Gender in Renaissance Italy 3  
Crosslisted with: ANT 404, WGS 404  
Historical and interdisciplinary exploration of life stages, rites of passage, marriage, family, social life, sodomy, prostitution, career options, and alternate life strategies as illustrated by case studies. Offered only in Florence.

HST 405 History of American Popular Culture 3 IR

Exploration of the history of American popular culture and the use of popular culture to study history.

HST 406 Contemporary Issues in Chile and Latin America 3 S

Crosslisted with: IRP 334, LAS 334, PSC 428, SPA 334

Offered only in Santiago. This seminar features in-situ lectures and activities in Chile, Argentina and Uruguay introducing important political, sociological and environmental issues in the Southern Cone region.

HST 408 The Practice of Eros: A History of Sexuality in Europe (1400-1800) 3

Crosslisted with: ANT 408, WGS 408

Authorized and "alternative" sexuality in Europe 15th to 18th centuries (especially Italy, France, and England.) "Licit love" (courtship, marriage, conjugal relations) as opposed to "illicit unions" (adultery, rape, prostitution, bestiality, homosexuality, lesbianism). Offered only in Florence.

HST 409 A History of Witchcraft 3

Crosslisted with: ANT 409, REL 409, WGS 409

History of witchcraft from various perspectives: its intellectual roots, the causes and dynamics of the witch-hunt, and the beliefs and self-perceptions of those who were called "witches". Offered only in Florence.

HST 410 Science and Technology in the Modern World 3 SI

Crosslisted with: STS 410

Interaction of science with technology from 1700 to the present. Technological artifacts and their scientific background. Development of new technology from scientific research and from old-fashioned dreaming and tinkering.

HST 411 Contemporary Central and Eastern Europe 3 Y

Crosslisted with: PSC 421

Offered only in Strasbourg. This course is designed to help students grasp the overall nature of contemporary Eastern and Central Europe, with emphasis on the breakup of the Soviet Union, and challenges of democratization and of EU unification.

HST 412 Understanding 20th Century Spain 3 S

Crosslisted with: PSC 422

Offered only in Madrid. Course begins with War of Cuba and ends with Spain's new role in EU, NATO and UN. Particular focus on the rapid changes within Spain during this period and how these were accomplished.

HST 413 China Encounters the West:

Qing Dynasty to Early Republic 3 Y

Offered only in Beijing. This course surveys the political, social, and cultural history of Qing China, using the great city of Beijing, the Qing capital, as its backdrop.

HST 414 America: A Foreign Perspective 3 Y

Offered only in London. US role in foreign policy from a British and global community perspective and issues of US identity and place in the world. Events include Suez Crisis, Cuban Missile Crisis, Vietnam, 9/11, the War on Terror.

HST 415 Europe, Russia and the Eastern Borderlands 3 Y

Offered only in Strasbourg. The first part of course focuses on question of borders/territorial change, construction of nations, and emergence/collapse of empires. The second part examines general problems common to post-communist countries.

HST 416 Europe and Arc of Crises 3 Y

Offered only in Strasbourg. Topics covered include European and American perspectives on Middle East; cultural, social and economic issues, such as inter-religious dialogue, migration and drug trafficking; the status of Turkey; Afghanistan and state terrorism.

HST 417 History of Women in Spain 3 S

Crosslisted with: SPA 417, WGS 417

Offered in Madrid only. History of women in Spain from primitive communities to the present. Topics include medieval, Golden Age, Enlightenment, and Romanticism; liberalism and feminism; women under Franco; Marxism and feminism; feminist movement in Spain. PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

HST 422 Ethnic History of Britain 3 S

Crosslisted with: ANT 402

Offered only in London. Examines the ways in which migration has shaped and reworked British national identity over the past two thousand years through the study of original historical sources, literature, film and music, and explores the contributions that migrants have made to modern British society.

HST 424 Dictatorships, Human Rights, and Historical Memory in the Southern Cone 3 S

Crosslisted with: IRP 424, LAS 424, PSC 424

Offered only in Santiago. The time period (1940-present) and its significance and contributions to the configuration of social, political and economic aspects of Chile today. Relies on primary sources, comparisons within the Southern Cone, and a focus on US role and influence during this period.

HST 434 Underground Railroad 3 SI

Crosslisted with: AAS 434, ANT 494; Double Numbered with: HST 634

Myth and history of the Underground in the context of African American freedom efforts. Emphasis on events, personalities, and sites in upstate New York. Student field research and exploration of archival and Internet resources. Additional work required of graduate students.

HST 441 Europe and International Security Issues 3 Y

Crosslisted with: PSC 441

Offered only in Strasbourg. Historical evolution of the concept of international security within the framework of European security-related institutions and the place of Europe in the context of new security challenges.

HST 443 Culture, Confucianism and Chinese Modernity 3 Y

Crosslisted with: ANT 403

Offered only in Beijing. Contemporary China from historical and cultural perspectives. Exploration of political and ideological conflicts between China and the West. Patterns of Chinese culture. Impact of Confucianism on Chinese society and its influence outside of China

HST 444 Culture, Business and Political Economics in East Asia 3 Y

Crosslisted with: INB 444, IRP 444, PSC 444

Offered only in Hong Kong. Examines the historical and contemporary forces that shape the cultural, social and economic institutions in East Asia and how these institutions affect one another.

HST 445 Contemporary British Politics and the Modern World 3 S

Crosslisted with: PSC 445

Offered only in London. British political system and the historical factors shaping it, as well as Britain's role in creating the modern world and its place in the world today.

HST 447 France from the Revolution to the Great War 3 Y

Crosslisted with: FRE 447

Study of the rise of the French Republic, its revolutions, and its recurrent lapses into authoritarian rule, notably under Napoleon I and III. Conducted in French. Offered in Strasbourg only. [Effective spring 2009] PREREQ: FRE 202.

HST 449 France from the Treaty of Versailles to European Integration 3 Y  
Crosslisted with: FRE 449

Analysis of major events in recent French history, including the rise of the Popular Front, the Nazi Occupation, the end of colonial rule, and the process of European integration. Conducted in French. Offered in Strasbourg only. [Effective spring 2009]  
PREREQ: FRE 202.

HST 451 Visual Culture Past and Present: Gender, Religion and Politics 3  
Crosslisted with: CRS 451, REL 451, WGS 451  
Offered only in Florence. Contemporary visual culture; its representation of gender, religion, and politics and the origins of that representation in a pictorial language first codified in Italy and Europe between circa 1450 and 1650.

HST 452 Italy: Past, Present and Future Challenges 3 S  
Crosslisted with: PSC 452  
Offered only in Florence. Italian society and politics from unification to present. Topics include role of the family, emigration and immigration, stereotypes and regional identities, processes and components of Italian society and culture. Analysis of current situation and future challenges.

HST 453 Twentieth Century Europe 3  
Crosslisted with: PSC 453  
Politics, society, war, and peace in Europe, 1919-1992. Nazi Germany, WW II, the Cold War, post-war reconstruction, social and economic transformations, and the revolutions of 1989 in Eastern Europe. Offered only in Florence.

HST 454 Family and Gender in Contemporary Italy 3 IR  
Crosslisted with: SOC 454, WGS 454  
Family structures and gender relations in Italy from the Unification to the present. Offered only in Florence.

HST 457 Gender, Politics, Society in Europe (1400-1800) 3 IR  
Crosslisted with: SOC 457, WGS 457  
Relationship between the sexes in politics, philosophy, literature, and art. Emergence of a dissident "voice" relative to gender identity and social role, with implications for race and religion. Offered only in Florence.

HST 470 Experience Credit 1-6  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

HST 480 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HST 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

HST 495 Distinction Thesis in History 3 S  
Conducting research and writing a thesis for departmental distinction in History under the guidance of a faculty member.

HST 496 Distinction Thesis in History 3 S  
Conducting research and writing a thesis for departmental distinction in History under the guidance of a faculty member.  
PREREQ: HST 495.

HST 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

HST 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HST 510 Studies in African American History 3 IR  
Crosslisted with: AAS 510  
Particular periods or aspects of African American history. R

## Humanities

HUM 280 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HUM 304 The Other China: Ethnic Minorities and Development 2 Y  
Offered only in Beijing. Examination of the impact of globalization and development on China's culturally diverse peoples, natural environment and animal habitats through onsite visits to tribal villages, water projects and nature preserves in Yunnan and Sichuan provinces in Southwest China.

HUM 321 Christians, Jews and Muslims 3 S  
Crosslisted with: JSP 321, MES 321, REL 321  
Offered only in Madrid. Key historic encounters between the three versions of monotheism, with reference to the richness of past cultural and religious legacy rooted in the Mediterranean region.

HUM 380 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HUM 400 Selected Topics 1-6  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HUM 403 China: Past, Present and Future 2 Y  
Presemester, two-week field studies seminar taught in Kunming or Xi'an, Beijing, and Shanghai. Introduction to the diversity of cultures and economies within China, overview of social conditions and forces that shape people's lives in the Peoples Republic of China.

HUM 404 'AZAHAR' The Islamic Conquest and the Christian Reconquest 2 S  
Crosslisted with: FLL 404, MES 404  
Thirteen day interdisciplinary seminar. Lectures in situ. Artistic, historical, cultural monuments of Cordoba, Sevilla, Granada and Toledo or Salamanca. Theological, philosophical and historical thought as to recreate the artistic and cultural climate of medieval al-Andalus/Spain.

HUM 420 Studies in Renaissance Cultural History 3-4 IR  
Topics in literature, fine arts, and religion between 1300 and 1600 in Italy, France, and England. Topics to be determined by the faculty. R

HUM 470 Experience Credit 1-6 SI  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

HUM 480 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HUM 501 Humanism and the Arts in Renaissance Italy 6 SS  
Interdisciplinary seminar on the interdependence of thought, art, and letters in Renaissance Italy and their dependence on social, political, religious, and cultural conditions. Given in Italy. Extensive field trips. Lectures and readings in English.

### International Relations

IRP 334 Contemporary Issues in Chile and Latin America 3 S  
Crosslisted with: HST 406, LAS 334, PSC 428, SPA 334

Offered only in Santiago. This seminar features in-situ lectures and activities in Chile, Argentina and Uruguay introducing important political, sociological and environmental issues in the Southern Cone region.

IRP 401 Global Policy Seminar 3 S  
A traveling, all-day weekly seminar on how U.S. foreign and national security policy is made and "how Washington works." Features guest speakers and visits to agencies and offices. Offered only in Washington, D.C.

IRP 402 Global Policy Seminar II 3 S  
A traveling, all-day weekly seminar on how U.S. foreign and national security policy is made and "how Washington works." Features guest speakers and visits to agencies and offices. Offered only in Washington, D.C., and in conjunction with IRP 401.

IRP 403 Global Issues 3 S  
Topics such as terrorism, weapons proliferation, AIDS, global warming, drugs, refugees, migration; lively debate, simulations. Offered only in Washington, D.C.

IRP 404 Global Political Economy Issue 3 S  
International trade and economic issues; the politics of economics and economic elements of global concerns. Guest experts, advocates from interest groups in the nation's capital. Offered only in Washington, D.C.

IRP 412 Global Governance: The United Nations System 3 Y  
Crosslisted with: PSC 412  
The theory and practice of global governance and international diplomacy through an in-depth study of the United Nations system. Critique readings and discuss current UN-related events. Fulfills the IR capstone for International Law and Organizations (ILO). Permission of instructor.  
PREREQ: PSC 124 OR 139.

IRP 413 Global Governance Practicum 3 Y  
Focuses on UN history, structure, and operation; processes of international negotiation and UN politics; and resolution writing and negotiation techniques. Apply theories and concepts of international relations studied in the classroom through active participation in an international conference simulation.  
PREREQ: PSC 124 OR 139. R1, 6 credits maximum

IRP 424 Dictatorships, Human Rights, and Historical Memory in the Southern Cone 3 S  
Crosslisted with: HST 424, LAS 424, PSC 424  
Offered only in Santiago. The time period (1940-present) and its significance and contributions to the configuration of social, political and economic aspects of Chile today. Relies on primary sources, comparisons within the Southern Cone, and a focus on US role and influence during this period.

IRP 426 Cultures and Politics of Afghanistan and Pakistan 3 E  
Crosslisted with: ANT 426, SAS 426  
Introduction to Afghanistan and Pakistan, recent histories, cultures, current politics. Covers geography, religious systems, gender roles, economic systems, foreign policy issues, refugees, migration. Additional work required of graduate students.

IRP 431 Environment and Development in China 3 S  
Offered only in Beijing. Addresses challenges in the environment and development arena in contemporary China, with analysis of conflict and resolution from multiple public policy perspectives.

IRP 443 Southeast Asia in the World Political Economy 3 Y  
Crosslisted with: GEO 443, INB 443, PSC 443  
Offered only in Hong Kong. Explores the historical and contemporary forces that have shaped the South East Asian region and its unique cultural, social, political and economic characteristics.

IRP 444 Culture, Business and Political Economics in East Asia 3 Y  
Crosslisted with: HST 444, INB 444, PSC 444  
Offered only in Hong Kong. Examines the historical and contemporary forces that shape the cultural, social and economic institutions in East Asia and how these institutions affect one another.

IRP 450 Undergrad Research Prog 1-6 S R

IRP 458 Contemporary Issues in Turkey 3 S  
Crosslisted with: PSC 458, SOC 458  
Offered only in Istanbul. Key political and social issues in contemporary Turkey. Democratization; relationship between secularism, the role of the military and Islam in political life; foreign policy including Turkish-US relations; nationalism, minorities, gender, human rights. Additional work required of graduate students.

IRP 468 Middle East in Anthropological Perspective 3 IR  
Crosslisted with: ANT 468, MES 468  
Anthropology of the social, cultural, geographical, and political realities of the Middle East. Additional work required of graduate students.

IRP 471 Global Internship 3 S  
Internship offered in Washington, D.C. as part of the Maxwell-Washington IR semester. Students accepted on the basis of academic qualifications.

IRP 480 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R1

IRP 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Italian

### ITA 101 Italian I 4 Y

Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Italian. No prior experience or admission by placement testing. Students cannot enroll in ITA 101 after successfully completing ITA 102, ITA 201, or ITA 202 or higher.

PREREQ: REQUIRED PLACEMENT EXAM SCORE.

### ITA 102 Italian II 4 Y

Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Italian. Students cannot enroll in ITA 102 after successfully completing ITA 201, ITA 202 or higher.

PREREQ: ITA 101 OR REQUIRED PLACEMENT EXAM SCORE.

### ITA 115 Beginning Italian I 3 S

Offered in Florence only for architecture and studio arts students. Proficiency-based, for students with no prior experience. Prepares students in written and spoken language. Cannot receive credit for both ITA 115 and ITA 101.

### ITA 116 Beginning Italian II 3 S

Offered in Florence only for architecture and studio arts students. Continuing proficiency-based course which develops communicative abilities in speaking, listening and writing in culturally authentic contexts. Cannot receive credit for both ITA 116 and ITA 102.

PREREQ: ITA 101.

### ITA 117 Italian Community and Culture I 2 S

Offered only in Florence. Develop language abilities through use of authentic materials and contexts.

COREQ: ITA 101.

### ITA 118 Italian Community and Culture II 2 S

Offered only in Florence. Develops language abilities through use of authentic materials and contexts.

PREREQ: ITA 101; COREQ: ITA 102.

### ITA 201 Italian III 4 Y

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Italian. Students cannot enroll in ITA 201 after successfully completing ITA 202 or higher.

PREREQ: ITA 102 OR REQUIRED PLACEMENT EXAM SCORE.

### ITA 202 Italian IV 4 Y

Continuing proficiency-based course which focuses on reading, discussing, and analyzing authentic texts as a basis for the expression and interpretation of meaning. Conducted in Italian. : Students cannot enroll in ITA 202 after successfully completing a course higher than ITA 202.

PREREQ: ITA 201 OR REQUIRED PLACEMENT EXAM SCORE.

### ITA 210 Italian Oral Skills I 5 S

Conversational Italian.

PREREQ: ITA 102. 1, 2 credits maximum

### ITA 215 Intermediate Italian I 3 S

Offered in Florence only for architecture and studio arts students. This course reinforces students linguistic skills while expanding their knowledge of language structures and building on vocabulary. Student cannot receive credit for both ITA 215 and ITA 201

PREREQ: ITA 102.

### ITA 216 Intermediate Italian II 3 S

Offered in Florence only for architecture and studio arts students. This course reinforces students linguistic skills while expanding knowledge of previously acquired language structures and building on vocabulary. Students cannot receive credit for both ITA 216 and ITA 202

PREREQ: ITA 201.

### ITA 217 Italian Community and Culture III 2 S

Offered only in Florence. Develops language abilities through use of authentic materials and contexts.

PREREQ: ITA 102; COREQ: ITA 201.

### ITA 218 Italian Community and Culture IV 2 S

Offered only in Florence. Develops language abilities through use of authentic materials and contexts.

PREREQ: ITA 201; COREQ: ITA 202.

### ITA 315 Italian Practicum I 1 S

Reviews major grammatical structures, prepares students for interactive dynamics of Italian language classroom; develops a richer vocabulary through newspaper and magazine articles. Offered only in Florence to Option II students.

PREREQ: ITA 202.

### ITA 316 Italian Practicum II 1 S

Consolidates students Italian language skills after completion of classes at Centro di Cultura of University of Florence. Further exposes students to aspects of Italian culture/heritage. Offered only in Florence to Option II students.

PREREQ: ITA 202.

### ITA 325 Advanced Language Usage 3 Y

Further the mastery of Italian through selected readings, targeted discussion, and weekly compositions.

### ITA 326 Italy Today: Language, Media and Culture in Contemporary Italy 3 Y

Analysis and discussion of current cultural issues in Italy. Designed to strengthen accuracy and fluency in oral and written expressions.

### ITA 376 Contemporary Italian Literature 3 IR

Readings in representative Italian authors since 1950. Special emphasis on short-stories and novels.

### ITA 400 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ITA 409 Dante's Comedy: Inferno 3 IR

Close reading of the first part of one of the masterpieces of World Literature. Dante's poem is a major work that problematizes literary, philosophical, theological and political issues.

### ITA 412 Boccaccio's Decameron 3 IR

A critical reading of the "Decameron", by Giovanni Boccaccio (1313-1375.) A masterpiece of medieval literature, the "Decameron" will be studied with particular attention to its historical context and its literary form (short stories.)

### ITA 421 Patterns of Modernity in 20th Century Italian Literature 3

Italian literary works marking the transition of Italy from an agricultural to an urban/technological society. Impact of technology on the Futurist avant-garde, concepts of national identity and modern self. Offered only in Florence.

PREREQ: ITA 202.

### ITA 422 Mass Communication in the Italian Culture 3

A comparative study of journalism; including the influence of political patronage on editorial biases. Discussion includes historical overview of Italian advertising and the broadcasting industry. Offered only in Florence.

ITA 423 Contemporary Italian Language and Society 3

A variety of primary source linguistic tools - newspapers, magazines, advertisements, radio/TV broadcasts, films, and songs - to examine and analyze key aspects of contemporary Italian language and culture. Taught in Italian. Offered only in Florence.

ITA 432 Verga, Verismo, Southern Novel 3

Representations of southern Italian life reflected in the works of Verga and selected novelists.

ITA 434 Africa in Italian Literature 3 IR

Study of the colonial experience in the African continent as described by Italian writers between the end of the 19th century and the first half of the 20th century; and its reverberations in contemporary Italy.

ITA 441 Modern and Contemporary Italian Theater 3 IR

Study of major Italian plays from 16th century to contemporary times.

ITA 442 Italian Novel Under Fascism 3

Selected novels attesting to cultural life in Italy under Fascism.

ITA 445 Class, Ideology and the Novel After 1968 3

Selected novels studied as significant sources of ideological discourses in 20th century Italian life.

ITA 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Japanese

JPS 101 Japanese I 4 Y

Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Japanese. No prior experience or admission by placement testing. Students cannot enroll in JPS 101 after successfully completing JPS102, JPS 201, or JPS 202 or higher.

PREREQ: REQUIRED PLACEMENT EXAM SCORE.

JPS 102 Japanese II 4 Y

Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Japanese. Students cannot enroll in JPS 102 after successfully completing JPS 201, JPS 202 or higher.

PREREQ: JPS 101 OR REQUIRED PLACEMENT EXAM SCORE.

JPS 201 Japanese III 4 Y

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Japanese. Students cannot enroll in JPS 201 after successfully completing JPS 202 or higher.

PREREQ: JPS 102 OR REQUIRED PLACEMENT EXAM SCORE.

JPS 202 Japanese IV 4 Y

Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Japanese. Students cannot enroll in JPS 202 after successfully completing a course higher than JPS 202.

PREREQ: JPS 201 OR REQUIRED PLACEMENT EXAM SCORE.

JPS 301 Japanese V 3 Y

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Japanese.

PREREQ: JPS 202.

JPS 302 Japanese VI 3 Y

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Japanese.

PREREQ: JPS 301.

## Judaic Studies Program

JSP 100 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

JSP 107 Religion, Literature, Film 3 IR

Crosslisted with: REL 107  
Literary and cinematic approaches to religious life, focusing on Jewish and Christian communities. Special attention to the Bible, Yiddish culture, post-Holocaust writing, and Israel; topics include land, tradition, humor, science, and violence.

JSP 114 The Bible 3 Y

Crosslisted with: REL 114  
Jewish and Christian scriptures in their ancient Near Eastern and Hellenistic contexts, with particular attention to their literary forms, the history of their composition, and their role in the development of Western religions and cultures. Credit is not given for REL/JSP 114 and either REL/JSP 215 or REL 217.

JSP 131 Great Jewish Writers 3 Y

Crosslisted with: LIT 131, REL 131  
Introduction to fiction by Jewish authors. Topics include modernization, rebellion against authority, alienation, childhood, superstition, and the holocaust. Some films included.

JSP 135 Judaism 3 Y

Crosslisted with: REL 135  
Survey of Judaic ideas, values, and cultural expressions as found in biblical, talmudic, medieval, mystical, and modern texts.

JSP 215 The Hebrew Bible 3 O

Crosslisted with: REL 215  
The Hebrew Bible (often called Old Testament) in English translation, with particular attention to its literary form, its cultural context in the ancient Near East, the history of its development, and its role in Western religions and cultures. Credit is not given for REL/JSP 114 and either REL/JSP 215 or REL 217.

JSP 231 Judaic Literature 3 Y

Crosslisted with: LIT 231, REL 231  
Survey of major works in the Judaic tradition, including Hebrew and Yiddish prose in translation. Themes include nature, culture, exile, humor, satire, and talking takhlis.

JSP 235 Travel Narratives and Pilgrimages 3 Y

Crosslisted with: LIT 235, REL 235  
Study of secular and spiritual travel narratives, both factual and fictional. Included are tales of exploration, shipwreck, and pilgrimage to the Holy Land, which played a key role in literary history.

JSP 290 Independent Study 1-6 IR

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

JSP 300 Selected Topics 1-3 S

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

JSP 301 Advanced Hebrew I 3 O

Crosslisted with: HEB 301  
Hebrew literature in the original, ranging from the Bible to contemporary fiction, including 19th-century works such as Hasidic tales and Enlightenment satires.

PREREQ: HEB 202. R1, 6 credits maximum

JSP 303 Advanced Hebrew II 3 O  
Crosslisted with: HEB 303  
Continuation of HEB/JSP 301, using more advanced texts

JSP 307 The Temple and the Dead Sea Scrolls 3 IR  
Crosslisted with: REL 307  
History and literature of Second Temple Judaism including the canonization of scripture, origins of the synagogue, apocalyptic literature, the Dead Sea Scrolls, and other developments leading to early Christianity and rabbinic Judaism.

JSP 308 Ancient Judaism and the Origins of Christianity 3 S  
Crosslisted with: MES 308, REL 308  
Offered only in Madrid. Social, cultural, intellectual, and historical conditions which surrounded the birth of this new world religion in its ancient Mediterranean cradle--from Mesopotamia and Egypt to Greece and ancient Rome.

JSP 311 The Bible as Literature 3 IR  
Crosslisted with: REL 311  
A study of one literary genre (such as prose narrative, didactic poetry, or hymnody) through the books of the Hebrew Bible in comparison to other ancient literatures.

JSP 321 Christians, Jews and Muslims 3 S  
Crosslisted with: HUM 321, MES 321, REL 321  
Offered only in Madrid. Key historic encounters between the three versions of monotheism, with reference to the richness of past cultural and religious legacy rooted in the Mediterranean region.

JSP 331 European and American Judaic Literature 3 Y  
Crosslisted with: REL 331  
Readings of 20th-century fiction and drama, focusing on works by Schnitzler, Kafka, Wiesel, P. Levi, Yeziarska, H. Roth, I.B. Singer, Malamud, P. Roth, and Ozick.

JSP 332 Jewish Textual Tradition 3 Y  
Crosslisted with: REL 332  
Students explore the Jewish textual tradition. Topics vary from year to year. Texts include Talmud, midrash, medieval philosophy and mysticism. Course can be repeated for credit. R2, 9 credits maximum

JSP 333 Yiddish Literature in Translation 3 Y  
Crosslisted with: LIT 333, REL 333  
Survey of Yiddish literature, with special attention to the classic Yiddish authors, Yiddish theater, modernism, and Yiddish women writers. Themes of minority culture, class struggle, hasidism, and the decline of the Shtetl.

JSP 334 Modern Judaism 3 IR  
Crosslisted with: REL 334  
The impact of modernity on Jewish life and thought. Issues and themes vary.

JSP 335 Israeli Literature and Culture 3 Y  
Crosslisted with: LIT 335, REL 335  
Literary and cultural approach to the modern history of Israel, with special attention to conflicts that have arisen during the Zionist project.

JSP 337 Shoah: Responding to the Holocaust 3 IR  
Crosslisted with: REL 337  
Historical, literary, and philosophical representations of, and responses to, the Nazi genocide. Philosophical, theological, and ethical challenges raised by the Holocaust.

JSP 338 American Judaism 3 IR  
Crosslisted with: REL 338  
Students explore the relation between culture and religion across a diverse range of American Jews and Jewish communities. Particular attention is paid to the process of acculturation and assimilation and to the reinvention of Judaism.

JSP 342 Religion and Politics in the Israeli-Palestinian Conflict 3 IR  
Crosslisted with: MES 342, PSC 342, REL 342  
Considers the extent to which religion matters in an enduring ethno-nationalist conflict. Approaches the Israeli-Palestinian conflict from an interdisciplinary perspective that explores the intersection of religion and politics.

JSP 362 Nazi Germany and the Holocaust 3-4 Y  
Crosslisted with: HST 362, QSX 362  
Rise of Nazism, fall of the Weimar Republic, fascist ideology, everyday life under Nazism for "Aryans," Jews, disabled people, Roma, gay people, Afro-Germans, others. Planning for genocide, the Holocaust, reactions and memories after 1945.

JSP 379 American Slavery and the Holocaust 3 IR  
Crosslisted with: PHI 379, PSC 379  
An in-depth study of the normative structure of both American Slavery and the Holocaust, focusing upon the ways in which each institution conceived of its victims and the character of the moral climate that prevailed in each case.

JSP 380 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R1, 12 credits maximum

JSP 392 History of the Holocaust 3  
Crosslisted with: HST 392  
Study of the events and issues of historical interpretation in the Holocaust, 1933-1945. Attitudes and behavior of Nazi perpetrators, Jewish victims, and bystanders.

JSP 400 Selected Topics 1-3 S  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

JSP 401 Hebrew Literature in the Original 3 O  
Crosslisted with: HEB 401  
The course retraces the history of Hebrew writing in Europe and Palestine before 1948  
PREREQ: HEB 301.

JSP 416 The Torah/Pentateuch as a Scripture 3 Y  
Crosslisted with: REL 416  
How the Pentateuch became the Torah, the first Jewish scripture: its origins, rhetorical use, performance in various media, and ritual function as an iconic book. Additional work required of graduate students.

JSP 435 Modern Judaic Thought 3 O  
Crosslisted with: PHI 435, REL 435  
The philosophical implications of Judaism's encounter with modernity. Close readings of selected modern Jewish thinkers. Issues and figures vary. R3, 9 credits maximum

JSP 439 Senior Seminar in Judaic Studies 3 Y  
Crosslisted with: REL 439  
Interdisciplinary study of special topics in the Judaic tradition. R2, 9 credits maximum

JSP 470 Experience Credit 1-6 IR  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

JSP 490 Independent Study 1-6 Y  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

#### World Language Prog: Korean

KOR 101 Korean I 4 Y  
Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Korean. Students cannot enroll in KOR 101 after successfully completing KOR 102, KOR 201, or KOR 202 or higher.

KOR 102 Korean II 4 Y  
Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Korean. Students cannot enroll in KOR 102 after successfully completing KOR 201, KOR 202 or higher.  
PREREQ: KOR 101.

KOR 180 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

KOR 201 Korean III 4 Y  
Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Korean. Students cannot enroll in KOR 201 after successfully completing KOR 202 or higher.  
PREREQ: KOR 102.

KOR 202 Korean IV 4 Y  
Continuing proficiency-based course which further refines and expands previously acquired linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Activities conducted in Korean. Students cannot enroll in KOR 202 after successfully completing a course higher than KOR 202.  
PREREQ: KOR 201.

#### Latino-Latin American Studies

LAS 200 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

LAS 300 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

LAS 302 Introduction to Latin American Literature 3 Y  
Crosslisted with: SPA 322  
Modern Latin American literature using new methods of study, basically Cultural Semiotics.  
PREREQ: SPA 202.

LAS 313 Modern Latin America 3 Y  
Crosslisted with: HST 323  
The turmoil of the postindependence period and the search for economic and political stability. Reasons for and consequences of export-led growth. The role of the United States in preserving the status quo in the Americas.

LAS 315 Advanced Language Usage 3  
Crosslisted with: SPA 302  
Advanced grammar, composition, and conversation.

LAS 318 South American Cultures 3 IR  
Crosslisted with: ANT 322  
Archaeology and cultural history. Racial, linguistic, and cultural areas from 1492 to today. Studies of contemporary Indian and Mestizo populations.

LAS 321 Latin American Development: Spatial Aspects 3 IR  
Crosslisted with: GEO 321  
Spatial dimensions of development process in Latin America since the 1930s in a variety of contexts and at several scales. Variety of spatial models that may be applied.

LAS 322 Colonial Latin America 3 Y  
Crosslisted with: HST 322, SPA 325  
Development of Amer-Indian civilization and the Spanish conquests. Evolution of the Spanish American economy and the unique American culture. Growth of the plantation economy of Brazil. The movements toward independence.  
PREREQ: SPA 201 OR SPA 202 OR (SPA 300 OR ABOVE).

LAS 324 Recent Latin American History 3 IR  
Crosslisted with: HST 324  
Developments since World War I. Political, economic, and social change and growth of nationalism.

LAS 325 Colonialism in Latin America 3 Y  
Processes of geographical change in Latin America from the sixteenth to the early twentieth century. Reconstruction of geographies of Latin America at critical periods.

LAS 326 Beyond the Screen: Latin American and Spanish Film 3  
Crosslisted with: SPA 326  
Film theories (historical, auteur, national, etc) and terminology, trends in film, women in film, problems with cultural representation.

LAS 333 Politics of Latin America 3 Y  
Crosslisted with: PSC 333  
Political processes and institutions in Latin America. The region's experience with modernization.

LAS 334 Contemporary Issues in Chile and Latin America 3 S  
Crosslisted with: HST 406, IRP 334, PSC 428, SPA 334  
Offered only in Santiago. This seminar features in-situ lectures and activities in Chile, Argentina and Uruguay introducing important political, sociological and environmental issues in the Southern Cone region.

LAS 335 Mexico and the United States 3 O  
Crosslisted with: PSC 334  
The history and politics of Mexico, with special attention to relations between Mexico and the United States and the politics of immigration, NAFTA, the drug trade, and other bilateral issues.

LAS343 Latina Feminist Theories 3 Y  
Crosslisted with: LIT 343, WGS343  
An interdisciplinary inquiry into Latina feminist theories. Engagement with varied sites of knowledge production and examination of how Latina feminisms negotiate issues of gender, race, ethnicity, nation, sexuality, class, and other social locations.

LAS358 Latin American International Relations 3 Y  
Crosslisted with: PSC 358  
Examines Organization of American States and other regional institutions. Considers how regional cooperation efforts have been shaped by political, economic, and cultural diversity of the countries in the region and by the changing global context.

LAS371 Gender in Latin American History 3 Y  
Crosslisted with: HST 371, WGS371  
History of women and gender relations from colonial period to the present. Influence of race, class, and ethnicity on gender. Relation of gender to labor, family, sexuality, and politics.

LAS372 Race in Latin America 3  
Crosslisted with: HST 372, NAT 372  
Race relations in Latin America from the late colonial era to present. Indigenous, immigrant, and Afro-Latin American experiences and how they have changed over time. Relations of race to national identity.

LAS402 Hispanic Journalistic Practices 3  
Crosslisted with: SPA 402  
Examines journalism and media in Spanish as they are practiced in Spanish-speaking countries and the U.S. Conducted in Spanish. [Effective spring 2009]

LAS424 Dictatorships, Human Rights, and Historical Memory in the Southern Cone 3 S  
Crosslisted with: HST 424, IRP 424, PSC 424  
Offered only in Santiago. The time period (1940-present) and its significance and contributions to the configuration of social, political and economic aspects of Chile today. Relies on primary sources, comparisons within the Southern Cone, and a focus on US role and influence during this period.

LAS425 Post-colonialism and Philosophy 3  
Crosslisted with: PHI 425  
The philosophical analysis and critique of colonialism's representations of other cultures and justifications for intervention, as well as debates over effective forms of resistance.

LAS433 Business Spanish 3 S  
Crosslisted with: SPA 433  
Language usage in relation to Spanish and Latin American business.

LAS439 Community Outreach: Language in Action 3 IR  
Crosslisted with: SPA 439  
Language immersion in the Spanish-speaking community in the Syracuse area. Emphasis on improving spoken and written Spanish through a service learning component. Additional work required of graduate students.  
PREREQ: SPA 301.

LAS461 Nobel Prize Writers of the Spanish-Speaking World 3  
Crosslisted with: SPA 461  
Presents works by 10 Nobel Laureates in Spanish.301

LAS463 Contemporary Latin American Theater 3  
Crosslisted with: SPA 463  
Introduction to major theater works and movements in 20th-century Latin America.

LAS465 Literature and Popular Culture 3  
Crosslisted with: SPA 465  
Mass culture and post modernism. Interactions between mass media culture, art, and politics in Latin America.

LAS467 Film and Literature 3  
Crosslisted with: SPA 467  
A critical study of books made into film in Latin American literature.

LAS471 Contemporary Latin American Literature 3  
Crosslisted with: SPA 471  
Latin American literature from the 1920s to the present. Emphasizes the development of the contemporary novel.

LAS475 Women, Myth and Nation in Latin American Literature 3  
Crosslisted with: SPA 475, WGS475  
Myths about women and nation. Modern interpretations and reconstructions of these myths in contemporary literature by Latin American women writers. Literary texts with theories on myth. Representation and "real" constructions of feminine and national identities in different regions of Latin America.

LAS479 Perspectives on Mexico and Central America: Literature, Art, Film 3  
Crosslisted with: SPA 479  
Literary works, films and arts created in Central America. Topics include perspectives on indigenism, feminine and masculine identities, religion, politics, technology and its future implications on those countries.

LAS481 The Literature of Latinos in the United States 3  
Crosslisted with: SPA 481  
Short stories and poetry written in Spanish by Latinos. Themes such as identity, language, and culture. Political, social, and cultural readings.

LAS489 Hispanic Caribbean Narrative and Film 3  
Crosslisted with: SPA 489  
Texts in Spanish by Caribbean writers. Explores themes such as women, politics, death, identity. Readings are accompanied by films and followed by critical theory and analysis.

LAS493 Afro-Hispanic Topics in Caribbean Literature 3  
Crosslisted with: SPA 493  
Caribbean African-Hispanic literature (poetry and short stories) with different areas of social and political interest. Emphasis on different Caribbean religions.  
PREREQ: SPA 301.

LAS494 Hispanic Caribbean Literature 3 E  
Crosslisted with: SPA 494  
This course studies the Spanish Caribbean's multiple identities through the discussion of a series of literary and cultural texts. The course concentrates on race, gender, sexuality, migrations, postcolonial relations, popular culture and diasporas.

LAS495 Marginal Cultures in Hispanic Caribbean Literature 3  
Crosslisted with: SPA 495  
Caribbean poetry and short stories about race, gender, and homoeroticism. Includes social, political, and cultural readings.

LAS497 Text and Context in Cuban Revolutionary Literature 3  
Crosslisted with: SPA 497  
Literary works of the Cuban revolutionary period by Cuban and Cuban-American authors from different literary and political points of view.

LAS499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

LAS 520 Research on Latin America 1-3 S  
Crosslisted with: GEO 520  
Reading and special work R

LAS 523 Globalization and its  
Discontents in Latin America 3 Y  
Crosslisted with: ANT 523  
Effects of and reactions to globalization and  
neo-liberal policies in rural communities,  
including industrialization, rural-urban and  
international migration and ethnic  
movements.

LAS 537 Environmental Policy in a  
Development Context 3 S  
Crosslisted with: GEO 537  
Offered only in Santiago. Examines  
historical/intellectual/ material processes that  
transformed nature into natural resources to be  
exploited; ways global political process has  
guided global responses to environmental  
problems; Chilean environmental policy over  
the last 20 years.

## Latin

LAT 101 Latin I 4 Y  
Introductory course which prepares students to  
acquire a reading knowledge of classical Latin,  
focusing on morphology and syntax, and its  
role in the culture and literature of ancient  
Roman society. Students cannot enroll in LAT  
101 after successfully completing LAT 102,  
LAT 201, or LAT 202 or higher.

LAT 102 Latin II 4 Y  
Continuing course with emphasis on  
morphology and syntax. Introduction to  
examples of unsimplified Latin prose of the  
Republic and Empire, read and interpreted  
within the cultural context of Greco-Roman  
society. Students cannot enroll in LAT 102  
after successfully completing LAT 201, LAT  
202 or higher.

LAT 201 Latin III 4 Y  
Continuing course with review of morphology  
and syntax and further study of idioms,  
rhetorical figures, and syntactic peculiarities.  
Reading and study of representative prose  
authors. Students cannot enroll in LAT 201  
after successfully completing LAT 202 or  
higher.

LAT 310 Latin Prose Authors 3 E  
Readings from selected authors. Review of  
grammar and syntax. R3, 12 credits maximum

LAT 320 Latin Poets 3 O  
Readings from selected Latin poets. Review of  
grammar and syntax. Latin metrics and  
prosody. R2, 9 credits maximum

LAT 410 Advanced Latin Prose 3 Y  
Readings from selected Latin prose authors.  
PREREQ: LAT 310 OR 320.

LAT 420 Advanced Latin Poetry 3 Y  
Readings from selected Latin poets.  
PREREQ: LAT 310 OR 320.

## Linguistics

LIN 180 International Course 1-12 SI  
Offered through SUAbroad by educational  
institution outside the United States. Student  
registers for the course at the foreign  
institution and is graded according to that  
institution's practice. SUAbroad works with  
the SU academic department to assign the  
appropriate course level, title, and grade for  
the student's transcript. R

LIN 201 The Nature and Study of  
Language 3 Y  
Introduction to the study of human language.  
Language change and diversity, usage,  
meaning, phonetics, grammatical description,  
and language learning.

LIN 202 Languages of the World 3 Y  
Crosslisted with: ANT 202  
Introduction to Universal Grammar.  
Similarities and differences in structures of  
human languages. Syntax and morphology.  
Theory development.  
PREREQ: LIN 201.

LIN 251 English Words 3  
An analysis of English words, their structure,  
history, meaning, and formation from a  
theoretically informed linguistic perspective.  
The course is primarily concerned with the  
words borrowed from the classical languages.

LIN 301 Introductory Linguistic Analysis  
3 Y  
Double Numbered with: LIN 601  
Techniques and methods of modern linguistics,  
including specific analysis of phonetic,  
phonological, morphological, and syntactic  
aspects of natural language structure.  
Additional work required of graduate students.  
PREREQ: LIN 202.

LIN 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not  
covered by the standard curriculum but of  
interest to faculty and students in a particular  
semester. R

LIN 411 Semantics of Human Languages  
3 Y  
Double Numbered with: LIN 611  
Introduction to analysis of meaning in natural  
languages. Additional work required of graduate  
students.  
PREREQ: LIN 301.

LIN 412 Pragmatics: Meaning and  
Context 3 Y

Double Numbered with: LIN 612  
Introduction to aspects of linguistic meaning  
that are dependent on context and other non-  
linguistic factors.  
PREREQ: LIN 301.

LIN 421 Introduction to Methodology of  
Teaching Languages: English/Foreign  
Language Teaching 3 Y  
Double Numbered with: LIN 621  
Topics include history and theories of  
language teaching; the teaching of content  
(grammar, sound system, lexis, and  
pragmatics) and skills; and assessment.  
Additional work required of graduate students.  
PREREQ: LIN 301 OR (SPA 435 AND 436).

LIN 422 Advanced Methods of Teaching  
Languages: English/Foreign Language  
Teaching 3 Y  
Double Numbered with: LIN 622  
Topics include curriculum development,  
technology in language learning, global  
dialects, individual differences, second language  
acquisition, and professional development.  
Students complete a practicum. Additional  
work required of graduate students.  
PREREQ: LIN 421.

LIN 426 Structure of Standard Arabic 3 IR  
Double Numbered with: LIN 626  
Structure of Standard Arabic, including the  
phonology, morphology, syntax, and  
semantics. Includes social and historical issues  
related to the development of the Arabic  
language. Additional work required of graduate  
students.

LIN 431 Phonological Analysis 3 Y  
Double Numbered with: LIN 631  
Introduction to analysis of sound systems of  
natural languages. Extra work required of  
graduate students.  
PREREQ: LIN 301.

LIN 441 Syntactic Analysis 3 Y  
Double Numbered with: LIN 641  
Introduction to analysis of morphological and  
syntactic systems of natural languages. Extra  
work required of graduate students.  
PREREQ: LIN 301.

LIN 451 Morphological Analysis 3  
Double Numbered with: LIN 651  
An introduction to morphological theory and  
analysis in contemporary generative  
linguistics. The course familiarizes students  
with the main topics that interest  
morphologists by exposing students to a range  
of cross-linguistic data.  
PREREQ: LIN 301.

LIN 461 Introduction to Historical Linguistics 3 Y

Double Numbered with: LIN 661

An introduction to traditional terminology and methods, and to more recent studies in formal, explanatory theories of language change. Theories of phonological as well as syntactic change. Additional work required of graduate students.

PREREQ: LIN 301.

LIN 471 Dimension of Bilingualism and Multiculturalism 3 Y

Double Numbered with: LIN 671

Foundations, theory, and practice of bilingual/bicultural education. Critical concepts of linguistic, sociolinguistic, psycholinguistic issues and methods as applied to bilingualism/multiculturalism. Additional work required of graduate students.

LIN 472 Language, Culture, and Society 3 Y

Crosslisted with: ANT 472, WGS 472; Double Numbered with: LIN 672

Cross-cultural survey of the role of language in culture and society, including cognition and language usage along the dimensions of class, gender, race, ethnicity, and social status.

LIN 473 Language Variation and Change 3 IR

Double Numbered with: LIN 673

An exploration of the theories, qualitative and quantitative methods, and the ideological, social, cultural, linguistic and structural factors involved in the study of language variation and change. Additional work required of graduate students.

LIN 475 Forensic Linguistics 3 E

Double Numbered with: LIN 675

Examines the application of core linguistic concepts, (including concepts of socio-psychological/pragmatic/discourse analysis), and interpretive techniques to investigate crimes, and other legal matters in which language data is used as pertinent evidence. Additional work required of graduate students.

LIN 481 Global Communication Through World Englishes 3 Y

Double Numbered with: LIN 681

World Englishes pose unique challenges for linguists, language pedagogues, business leaders, communication experts, and researchers in intercultural/ international communication. Various topics reflecting these challenges are presented. Additional work required of graduate students.

LIN 491 Universal Grammar and Second Language Acquisition 3 Y

Double Numbered with: LIN 691

Basic concepts and results of research in grammatical theory and second language acquisition and implications for the understanding of the performance of second language acquirers. Additional work required of graduate students.

PREREQ: LIN 441.

LIN 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

LIN 571 Topics in Sociolinguistics 3 SI

Crosslisted with: ANT 571, SOC 571

Functions of language in society. Geographical, socioeconomic, and male-female differentiation. Functions of various types of speech events. Requirements include a research project. R1, 6 credits maximum

LIN 580 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

LIN 591 Second Language Acquisition 3 Y

Survey of research on second-language acquisition; biological, cognitive, effective, and social factors.

PREREQ: LIN 301 OR 601.

### Literature In English Translation

LIT 101 Introduction to Classical Literature 3 Y

Major popular and influential genres of classical literature. Heroic tradition in epic and tragic spirit of epic and drama. Birth of comedy.

LIT 102 Introduction to Classical Literature 3 Y

Major popular and influential genres of classical literature. Heroic tradition in epic and tragic spirit of epic and drama. Birth of comedy.

LIT 131 Great Jewish Writers 3 IR

Crosslisted with: JSP 131, REL 131

Introduction to fiction by Jewish authors. Topics include modernization, rebellion against authority, alienation, childhood, superstition, and the holocaust. Some films included.

LIT 180 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

LIT 203 Greek and Roman Epic in English Translation 3 IR

Apollonius, Hesiod, Homer, Lucretius, and Virgil. No knowledge of Greek or Latin required.

LIT 211 Greek and Roman Drama in English Translation 3 IR

Selected works of the Greek and Roman dramatists. No knowledge of Greek or Latin required.

LIT 226 Dostoevsky and Tolstoy 3 Y

Lectures, readings, discussions, and reports on Dostoevsky's and Tolstoy's major novels.

LIT 227 Pasternak and Solzhenitsyn 3 Y

The search for the meaning of human existence, for universal truths in life: the importance of individual freedom, morality, human affection and suffering in the caldron of twentieth-century Soviet socialism.

LIT 231 Judaic Literature 3 Y

Crosslisted with: JSP 231, REL 231

Survey of major works in the Judaic tradition, including Hebrew and Yiddish prose in translation. Themes include nature, culture, exile, humor, satire, and talking takhlis.

LIT 235 Travel Narratives and Pilgrimages 3 Y

Crosslisted with: JSP 235, REL 235

Study of secular and spiritual travel narratives, both factual and fictional. Included are tales of exploration, shipwreck, and pilgrimage to the Holy Land, which played a key role in literary history.

LIT 241 Dante and the Medieval World 3 IR

Passages from the Divine Comedy as an encyclopedic work illuminating vital historical, intellectual, and cultural forces in the medieval world.

LIT 242 Petrarch and the Renaissance World 3 IR

This course is a sequel to LIT 241. Petrarch's poetry and prose will provide the point of departure for an examination of issues and problems in the Renaissance.

LIT 243 Cultures of Italy from the Middle Ages to the Present 3 IR

Historically based survey of life in Italy from the time of Dante to our time with emphasis on political, social and art histories.

LIT 245 Florence and Renaissance Civilization 3 IR

Florence as the linguistic, literary, and cultural center of early medieval and modern Italian civilization.

LIT 255 Cervantes in English 3 E

Analysis and interpretation of Don Quixote and selected shorter works. Not recommended for Spanish majors.

LIT 257 Italian Cinema and Culture Since World War II 3

Selected films of DeSica, Fellini, Visconti, and others as significant documents of Italian life in the post-war period and beyond.

LIT 300 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

LIT 301 French Cinema Vs. Hollywood 3

A comparative study of French and American cinema across various themes and genres. Offered in Strasbourg only.

LIT 331 Russian Culture Through Fiction and Film 3

Crosslisted with: RUS 331

Documentary films and readings of short fiction. Elements of Russian culture and provides an understanding of Russian national identity as it has developed from Kievan Russian to the present day.

LIT 332 Russian Fairy Tales and Folklore 3

Crosslisted with: RUS 332

The history and development of fairy tales in Russia. Begins with oral tales, influenced by early folklore and pagan rituals, and progresses through literary fairy tales and film versions.

LIT 333 Yiddish Literature in Translation 3 Y

Crosslisted with: JSP 333, REL 333

Survey of Yiddish literature, with special attention to the classic Yiddish authors, Yiddish theater, modernism, and Yiddish women writers. Themes of minority culture, class struggle, hasidism, and the decline of the Shtetl.

LIT 335 Israeli Literature and Culture 3 Y

Crosslisted with: JSP 335, REL 335

Literary and cultural approach to the modern history of Israel, with special attention to conflicts that have arisen during the Zionist project.

LIT 336 Arabic Cultures 3 IR

Crosslisted with: MES 336

Arabic culture through geography, literature, religion (Islam and other religions), ethnic groups, social divisions, films, the media, music, art, food, gender issues, and everyday life.

LIT 343 Latina Feminist Theories 3 Y

Crosslisted with: LAS 343, WGS 343

An interdisciplinary inquiry into Latina feminist theories. Engagement with varied sites of knowledge production and examination of how Latina feminisms negotiate issues of gender, race, ethnicity, nation, sexuality, class, and other social locations.

LIT 361 Russian Literary Film

Adaptations 3 IR

Crosslisted with: RUS 361

Study of film adaptations of Russian literary classics.

LIT 362 Russia Today 3 IR

Crosslisted with: RUS 362

Using scholarly texts, newspapers, blogs, digital audio, film, recent literature, and web videos, we will investigate topics that define contemporary Russia and make it seem familiar yet different to us in the West.

LIT 381 Italian and European Theater 1500-1700 3 Y

Crosslisted with: DRA 381, WGS 381

Secular and professional drama as it emerged in Renaissance Italy and spread to Spain, England, and France. Selected works of Machiavelli, Monteverdi, Cervantes, Calderon, Shakespeare, Molière, Behn and others (in English). Offered only in Florence.

LIT 382 Asian Cinema 3 Y

Offered only in Hong Kong. Selection of classic and contemporary films by Asian filmmakers that exemplify cultural and aesthetic traditions, values, and trends.

LIT 421 Classical Mythology 3

Crosslisted with: CLA 421, REL 421

Myths and rituals of Greek mythology and religion. Ancient poets/playwrights and important mythological themes found in later Western religious/artistic traditions. Offered only in Florence.

LIT 423 Italian Cinema: 1945 to Present 3 S

Offered only in Florence. Survey of Italian cinema since 1945. Analyzes major works by Italian directors, considering the evolution of Italian cinema as an art form and a reflection of major social and political problems in post-war Italy.

LIT 442 From Dante to Calvino: Italian Literature in Translation 3

Italian writers from the 14th century to the 20th century. Offered only in Florence.

LIT 443 Dante, Petrarch, and Boccaccio 3

Early, central Italian literature and society.

Dante's ""Comedy,"" Petrarch's

""Canzoniere,"" Boccaccio's ""Decameron.""

Offered only in Florence.

LIT 445 Comedy in Italy: From Ancient to Modern Times 3

Comedy, Italian style, from ancient Roman stages to the international scene. Laughter, farces, cartoons, films, and the use of comic masks. Students read plays by Plautus, Machiavelli, Fo, Shakespeare, and Moliere. Theater excursions. Student performance option. Offered only in Florence.

LIT 499 Honors Capstone Project 1-6

Completion of an Honors Capstone Project under the supervision of a faculty member. R

LIT 510 Studies in Greek and Roman Literature in Translation 3 SI

Selected topics in Greek or Roman literature studied in English. No knowledge of Greek or Latin required. R

LIT 521 Mythology 3 IR

Greek, Roman, and Norse myths. Knowledge of foreign languages not required.

## Law In The Liberal Arts

LLA 201 Elements of Law 3 Y

Provides an introduction to law and legal institutions. The course is designed to prepare lower-division undergraduates for the further study of legal topics in departments across the College of Arts and Sciences.

## Mathematics

MAT 112 Algebraic Operations and Functions 3 S

Algebraic operations. Linear and quadratic equations, applications. Exponents and logarithms. Credit not given for MAT 112 after receiving a C or better in MAT 183 or above.

**MAT 117 Foundational Mathematics via Problem Solving I 3 Y**  
One course in two-course sequence. Number concepts and relationships (including concepts of numeration, operations, number theory), probability, statistics, and functions. Emphasizing learning through problem solving.

**MAT 118 Foundational Mathematics via Problem Solving II 3 Y**  
One course in a two-course sequence. Rational number concepts, geometric concepts, measurement concepts, algebraic concepts, and structures. Emphasizing learning through problem solving.

**MAT 120 Supplemental Basic Mathematics 1 IR**  
As needed for further coursework. Does not satisfy any part of the quantitative skills requirement.  
COREQ: MAT 121 OR 122 OR 183 OR 194.

**MAT 121 Probability and Statistics for the Liberal Arts I 4 S**  
First in a two-course sequence. Teaches probability and statistics by focusing on data and reasoning. Topics include displaying data, numerical measures of data, elementary probability, discrete distributions, normal distributions, confidence intervals. NOTE: A student cannot receive credit for MAT 121 after completing STT 101 or any MAT course numbered above 180 with a grade of C or better.

**MAT 122 Probability and Statistics for the Liberal Arts II 4 S**  
Second in a two-course sequence. Teaches probability and statistics focusing on data and reasoning. Topics include hypothesis testing, linear correlation, linear regression, nonparametric methods, statistical process control, solving linear equations, matrices, Markov chains. NOTE: A student cannot receive credit for MAT 122 after completing any MAT course numbered above 180 with a grade of C or better.  
PREREQ: MAT 121.

**MAT 183 Elements of Modern Mathematics 4 S**  
Linear equations, matrices, and linear programming. Introduction to mathematics of finance. Discrete probability theory. For students interested in management, finance, economics, or related areas.

**MAT 193 Algebra-Infused Precalculus 4 IR**  
Polynomial, rational, exponential, and logarithmic functions. Analytical trigonometry and trigonometric functions. Emphasis on algebra throughout the course. A student cannot receive credit for MAT 193 after receiving a grade of C or better in any calculus course. Credit cannot be given for both MAT 193 and MAT 194.

**MAT 194 Precalculus 4 S**  
Polynomial, rational, exponential, and logarithmic functions. Analytical trigonometry and trigonometric functions. A student cannot receive credit for MAT 194 after receiving a grade of C or better in any calculus course. Credit cannot be given for both MAT 193 and MAT 194.

**MAT 200 Selected Topics 1-3 IR**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**MAT 221 Elementary Probability and Statistics I 3 S**  
First of a two-course sequence. For students in fields that emphasize quantitative methods. Probability, design of experiments, sampling theory, introduction of computers for data management, evaluation of models, and estimation of parameters.

**MAT 222 Elementary Probability and Statistics II 3 S**  
Continuation of MAT 221. Further methods of statistical analysis emphasizing statistical reasoning and data analysis using statistical software. Basic concepts of hypothesis testing, estimation and confidence intervals, t-tests and chi-square tests, linear regression, analysis of variance.  
PREREQ: MAT 221.

**MAT 284 Business Calculus 4 S**  
One-variable differential and integral calculus. Applications to business and economics. MAT 284 may not be taken for credit after successful completion of MAT 285 or MAT 295.

**MAT 285 Life Sciences Calculus I 3 S**  
Functions and their graphs, derivatives and their applications, differentiation techniques, the exponential and logarithm functions, multivariable differential calculus including constrained optimization. MAT 285 may not be taken for credit after successful completion of MAT 284 or MAT 295

**MAT 286 Life Sciences Calculus II 3 Y**  
Antidifferentiation; the definite integral and applications; first order differential equations with applications. Cannot be taken for credit after successfully completing MAT 296.  
PREREQ: MAT 285.

**MAT 290 Independent Study 1-6 IR**  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

**MAT 295 Calculus I 4 S**  
Analytic geometry, limits, derivatives, maxima-minima, related rates, graphs, differentials, exponential and logarithmic functions, mean-value theorem, L'Hospital's rule, integration. For science majors. MAT 295 may not be taken for credit after successful completion of MAT 286.

**MAT 296 Calculus II 2-4 S**  
Integration: the definite integral and applications; trigonometric functions, methods of integration, improper integrals, infinite series, elementary differential equations, parametric equations, polar coordinates.  
PREREQ: MAT 295 WITH MINIMUM GRADE C-.

**MAT 331 First Course in Linear Algebra 3 S**  
Linear equations, n-dimensional euclidean space, linear independence, bases, linear transformations, matrices and determinants, eigenvalues and eigenvectors. Geometric aspects. Credit will not be given for both MAT 331 and 485.  
PREREQ: MAT 286 OR 296.

**MAT 375 Introduction to Abstract Mathematics 3 Y**  
Principles of symbolic logic, set theory, basic function theory, relations, and cardinality. Emphasis on developing proof-writing skills, including mathematical induction. Credit cannot be given for both MAT 375 and CIS 275.  
PREREQ: MAT 295.

**MAT 397 Calculus III 4 S**  
Analytic geometry and vectors; functions of more than one variable, multiple integrals, partial differentiation, physical applications.  
PREREQ: MAT 296 WITH MINIMUM GRADE C-.

**MAT 412 Introduction to Real Analysis I**  
3 Y

Introduction to the foundations of calculus covering topics from the following: the real number system, functions, limits, sequences, infinite series, continuity, and uniform continuity. Enrollment limited to mathematics majors.

PREREQ: (MAT 375 OR CIS 275) AND MAT 397.

**MAT 414 Introduction to Ordinary Differential Equations** 3 S

First order differential equations. Second order linear differential equations. Power series solutions. Bessel's equations, Laplace transforms. Systems of first order differential equations. Applications. Credit will not be given for both MAT 414 and MAT 485.

PREREQ: MAT 397 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 421 Applied Probability and Statistics** 3 S

Sample spaces, counting, random variables and their distributions, expected value, central limit theorem. Estimation and confidence intervals, hypothesis tests, analysis of variance and regression. MAT 421 does not count towards the Mathematics or Applied Mathematics major or minor. Cannot be taken for credit after successfully completing MAT 521.

PREREQ: MAT 286 OR 296.

**MAT 485 Differential Equations and Matrix Algebra for Engineers** 3 S

Solution of ordinary differential equations, including series methods. Vector spaces, matrix algebra, rank, linear systems, eigenvalues and eigenvectors. Credit not given for both MAT 485 and MAT 414, nor for both MAT 331 and 485. Does not count toward mathematics major.

PREREQ: MAT 397.

**MAT 490 Independent Study** 1-6 IR

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

**MAT 499 Honors Capstone Project** 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

**MAT 511 Advanced Calculus** 3 Y  
Partial derivatives, implicit functions, integration in several variables, line and surface integrals.

PREREQ: (MAT 331 AND 397) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 512 Introduction to Real Analysis II**  
3 Y

Real-number system, set theory and elementary topological properties of the real line, continuity and differentiability, sequences and series, uniform convergence, Riemann integration, and improper integrals.

PREREQ: MAT 412 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 513 Introduction to Complex Analysis** 3 Y

Complex number system and its arithmetic, geometric representation. Linear transformations. Analytic functions and the Cauchy-Riemann equations. Integration and Cauchy's theorem, Taylor and Laurent series, singularities, poles, and residues. Applications.

PREREQ: MAT 412 OR 511 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 517 Partial Differential Equations and Fourier Series** 3 Y

Partial differential equations, boundary-value problems, Fourier series and orthogonal expansions, Bessel functions, and Legendre polynomials.

PREREQ: MAT 485 OR 414 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 518 Fourier Series, Transforms and Wavelets** 3 Y

Orthogonal functions, Fourier series, Fourier transforms-continuous and discrete, Haar wavelets and multiresolution analysis, applications to signal processing.

PREREQ: MAT 414 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 521 Introduction to Probability** 3 S  
Algebra of sets. Probability in finite sample spaces. Binomial and multinomial coefficients.

Random variables. Expected value and standard deviation. Density functions. Statistical applications.

PREREQ: MAT 397 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 525 Mathematical Statistics** 3 Y  
Estimation and confidence intervals. Normal distribution and central limit theorem. Testing hypotheses, chi-square, t, and F distributions.

Least squares, regression, and correlation. PREREQ: MAT 521 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 526 Introduction to Stochastic Processes** 3 Y

Discrete time Markov chains, Poisson process, continuous time Markov chains and other selected stochastic processes.

PREREQ: MAT 521 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 531 Second Course in Linear Algebra** 3 Y

Abstract vector spaces and inner product spaces, linear transformations and linear operators, eigenvalues and diagonalization. Primarily for mathematics majors.

PREREQ: ((MAT 375 OR CIS 275) AND MAT 331) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 532 Applied Linear Algebra** 3 SI  
Factorization of matrices, eigenvalues and eigenvectors, orthogonality. Applications of

matrices to such topics as least-squares approximation, fast Fourier transform, difference and differential equations, linear programming, networks, game theory.

PREREQ: MAT 331 OR 485 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 534 Introduction to Abstract Algebra** 3 Y

Theory of groups, rings, and fields, including the integers and polynomial rings.

PREREQ: MAT 531 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

**MAT 541 Introduction to Number Theory**  
3 IR

Prime numbers, greatest common divisors, congruences. Euler's function, Fermat's theorem, primitive roots, indices, quadratic residues, Legendre and Jacobi symbols, and the quadratic reciprocity law.

PREREQ: ((MAT 375 OR CIS 275) AND MAT 331) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

MAT 545 Introduction to Combinatorics 3 Y

Crosslisted with: CIS 545

Permutations, combinations, recurrence relations, generating functions, inclusion-exclusion and applications, introductory graph theory.

PREREQ: MAT 375 OR CIS 275 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

MAT 551 Fundamental Concepts of Geometry 3 IR

Synthetic projective geometries. Coordinate systems for projective spaces. Algebraic representation of projective transformations; euclidean, non-euclidean, and affine geometries as real cases of projective geometry.

PREREQ: ((MAT 375 OR CIS 275) AND MAT 331) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

MAT 554 Differential Geometry 3 IR

Theory of curves in three-dimensional space, including Frenet's formula, Gaussian and mean curvature, geodesics, developable surfaces, special conformal mappings.

PREREQ: MAT 412 OR 511 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

MAT 562 Elementary Topology 3 IR

Metrics and metric spaces, topologies and topological spaces, separation properties, compactness, connectedness, and continuity.

PREREQ: ((MAT 375 OR CIS 275) AND MAT 512) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

MAT 581 Numerical Methods with Programming 3 Y

Approximation methods for solution of nonlinear equations. Interpolation problems. Numerical integration. Solution of ordinary differential equations. Error analysis and writing computer programs. Primarily for mathematics and engineering students.

PREREQ: MAT 397 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

MAT 593 History of Mathematics 3 IR

Mathematical concepts in their historical perspective. Character and contributions of the great mathematicians and relation of mathematics to other sciences.

PREREQ: (MAT 397 AND AT LEAST TWO 500-LEVEL MATH COURSES) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES.

MAT 599 Senior Seminar in Mathematics 3 IR

Topic Chosen by the instructor. Permission of department.

### Maxwell

MAX 123 Critical Issues for the United States . 3 S

Interdisciplinary focus on critical issues facing America. Perspectives of social science disciplines on the meaning of the American Dream, its past and its future.

MAX 132 Global Community 3 S

Dynamics of worldwide society and its cultures. Global economy and political order. Tensions within these realms. Attempts by different communities to either participate in or to hold themselves aloof from "global culture."

MAX 201 Quantitative Methods for the Social Sciences 3 S

Skills necessary to analyze data and evaluate research: research design, sampling design, descriptive and inferential statistics, data sources for social science, constructing data sets, reading and constructing tables and charts.

MAX 301 Ethics, Justice, and Citizenship 4 S

Seminar in ethics and political/social justice as they pertain to citizenship and civic action. Course covers historical and contemporary approaches to citizenship; contains substantial research and service-learning components.

MAX 302 Civic Engagement Research Seminar 3 S

Readings and research on application of social science methodologies to concrete civic, political, and global issues. Initial focus on Maxwell-based research; case studies of academically informed civic engagement; final project proposal on topic of student's choice. PREREQ: MAX 301.

### Middle Eastern Studies

MES 165 Discovering Islam 3 Y

Crosslisted with: REL 165, SAS 165  
Islam as a faith and a civilization.

Understanding its origins, beliefs, rituals, and the historical development of its intellectual traditions in the pre-modern and modern eras, and its geographic, cultural and theological diversity today.

MES 200 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MES 308 Ancient Judaism and the Origins of Christianity 3 S

Crosslisted with: JSP 308, REL 308

Offered only in Madrid. Social, cultural, intellectual, and historical conditions which surrounded the birth of this new world religion in its ancient Mediterranean cradle--from Mesopotamia and Egypt to Greece and ancient Rome.

MES 315 Topics in Ethnic Literatures and Cultures 3 Y

Readings in one or more ethnic literature and culture, such as Irish, Italian American, Judaic, Latino, Native American, or Asian American. First offered in Summer 2015 R2, 9 credits maximum

MES 318 The Middle East to 1900 3 IR

Crosslisted with: HST 318

Beginning with the rise and spread of Islam through the reform era of the nineteenth-century, this course focuses on the social and cultural history of the Ottoman Empire.

MES 319 The Middle East in the 20th Century 3 IR

Crosslisted with: HST 319

Social and cultural history of the Middle East in the twentieth-century, including themes such as colonialism, anti-colonial nationalism, modernity, social movements, women and gender, and contemporary issues.

MES 321 Christians, Jews and Muslims 3 S

Crosslisted with: HUM 321, JSP 321, REL 321  
Offered only in Madrid. Key historic encounters between the three versions of monotheism, with reference to the richness of past cultural and religious legacy rooted in the Mediterranean region.

MES 336 Arabic Cultures 3 IR

Crosslisted with: LIT 336

Arabic culture through geography, literature, religion (Islam and other religions), ethnic groups, social divisions, films, the media, music, art, food, gender issues, and everyday life.

MES 342 Religion and Politics in the Israeli-Palestinian Conflict 3 IR

Crosslisted with: JSP 342, PSC 342, REL 342

Considers the extent to which religion matters in an enduring ethno-nationalist conflict. Approaches the Israeli-Palestinian conflict from an interdisciplinary perspective that explores the intersection of religion and politics.

- MES 344 Politics of the Middle East 3 Y  
Crosslisted with: PSC 344  
Religious, political, economic, and social dimensions of life in modern Middle East. Legacy of Islam, encounter with Western modernity, Arab-Israeli conflict, and political economy of the region.
- MES 345 Islam and Politics in Asia 3 IR  
Crosslisted with: PSC 345  
Survey of the diverse and protean role Islam plays in Asian public life by analyzing the variegated cultural, political, religious, and social milieu that it has encountered in Central, South, and Southeast Asia.
- MES 349 Politics of Iran 3 IR  
Crosslisted with: PSC 349  
Historical and theoretical understanding of modern Iranian politics and society from the late 19th century to the present time.
- MES 350 Gender, Violence, and Sexualities in the "War on Terror" 3 Y  
This course analyzes the ways in which gender has been employed in developing narratives of US national security and the War on Terror after 9/11.
- MES 360 Reading Gender and Sexualities: Gender and Sexuality in the Arab World 3 S  
This course explores the ways in which gender and sexuality are represented in an array of visual, historical, and literary texts from the Arab world and its diaspora, starting from the pre-Islamic era up till the contemporary period.
- MES 364 Enchanting Words: Muslim Poets, Singers and Storytellers 3 Y  
Crosslisted with: REL 364, SAS 364  
Understand the power of words and language in Muslim cultures expressed in oral and literary genres including poetry, humor, fables, folksongs and travel journals. Explore key themes such as virtue, reality, divine and human nature.
- MES 365 God and Beauty in Islamic Art 3 Y  
Crosslisted with: REL 367, SAS 367  
Expressions of beauty, creativity and faith in Islamic calligraphy, ceramics, textiles, architecture, miniatures and music. Unity and diversity of the visual and performing arts of Muslims in different periods, cultures and regions.
- MES 366 Representations of the Middle East 3 IR  
Crosslisted with: PSC 366  
The politics of "gazing" and cultural imagination through critical analysis of how the mass media articulates, transmits, promotes and legitimizes knowledge and information about the Middle East.
- MES 367 Oil, Water and War 3 IR  
Crosslisted with: PSC 367  
Examines current level of knowledge about historical connections among war and the resources of petroleum and fresh water. Also looks at how alternative claims about these goods will be expressed in the future.
- MES 368 Islam and the West 3  
Crosslisted with: HST 368, PSC 368  
Topics include globalization and interdependency of faiths, the "clash of civilizations", relations between religion and state in Islam and Christianity and whether it is possible to separate the world into monolithic entities "Islam" and "West". Offered in London only.
- MES 382 Health in the Middle East 3 IR  
Crosslisted with: ANT 382, HTW 382  
Surveys major cultural, biological and environmental features of the Middle East and relates them to aspects of health including infectious disease, chronic disease, reproductive health, population, war, poverty and globalization.
- MES 386 Sounds of the Silk Road 3 IR  
Crosslisted with: HOM 386, SAS 386  
The soundscapes of the overland Silk Road as a window into history, commerce, migration, social life, values, faith, tolerance and conflict. Case studies from Turkish, Arabic, Persian, Central Asia, and Southwest Asia musics.
- MES 391 Revolutions in the Middle East 3 IR  
Crosslisted with: PSC 391  
A comparative study of revolutions in the Middle East in terms of causes, processes and outcomes.
- MES 392 Sociology of Islamic Fundamentalism 3 IR  
Crosslisted with: PSC 392  
A study of the social origins and political outcomes of Islamic Fundamentalism.
- MES 393 Middle Eastern Political Systems 3 IR  
Crosslisted with: PSC 393  
Study of Middle Eastern political systems in terms of cleavages and crisis.
- MES 394 History of Islamic Political Thought 3 IR  
Crosslisted with: PSC 394  
A study of Islamic political and social attitudes pertaining to contemporary issues.
- MES 395 Democratization in the Muslim World 3 IR  
Crosslisted with: PSC 395  
Reasons for and dynamics of democratization in some Muslim countries.
- MES 404 'AZAHAR' The Islamic Conquest and the Christian Reconquest 2 S  
Crosslisted with: FLL 404, HUM 404  
Thirteen day interdisciplinary seminar. Lectures in situ. Artistic, historical, cultural monuments of Cordoba, Sevilla, Granada and Toledo or Salamanca. Theological, philosophical and historical thought as to recreate the artistic and cultural climate of medieval al-Andalus/Spain.
- MES 406 The Middle East in Graphic Novels 3 E  
Graphic narratives that handle complex issues defining life in the Middle East and its diaspora, including wars and military conflicts, coming-of-age struggles, and gender relations.
- MES 430 Senior Seminar in Middle Eastern Studies 3 Y  
A required course for students pursuing a minor or major in Middle Eastern Studies. An interdisciplinary study of special topics that fall under the rubric of Middle Eastern Studies: Western modernity, Islamic thought and practices, and popular culture.  
PREREQ: MES 344. RI, 6 credits maximum
- MES 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies 3 Y  
Crosslisted with: QSX 453, WGS 453  
This course maps women's rights movements, LGBTQ mobilizations, and minority activisms in the Middle East. It focuses on the centrality of gender and sexuality to the politics of every day life.
- MES 465 Beyond the Veil: Gender Politics in Islam 3 Y  
Crosslisted with: REL 465, SAS 465, WGS 465; Double Numbered with: MES 626  
Politics of gender, religious identities, and resistance in the Islamic world. Gender scripts in Qur'anic scripture and Shariah laws. Contemporary realities of Muslim women living in different parts of the world. Additional work required of graduate students.

MES 468 Middle East in Anthropological Perspective 3 IR  
Crosslisted with: ANT 468, IRP 468; Double Numbered with: MES 668  
Anthropology of the social, cultural, geographical, and political realities of the Middle East. Additional work required of graduate students.

MES 495 Distinction Thesis in Middle East Studies 3 SI  
Thesis in partial fulfillment of the requirements for the Distinction in Middle Eastern Studies Program. Normally in the semester prior to graduation, topic chosen in conjunction with advisor.

MES 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R

### Native American Studies

NAT 105 Introduction to Native American Studies 3 S  
Overview of critical issues in Native American Studies: colonization, religious freedom, environment, sovereignty, and politics of identity, interdisciplinary, comparative, and indigenous perspectives in relation to histories, societies, and cultures.

NAT 142 Native American Religion 3 Y  
Crosslisted with: REL 142  
Religious beliefs and practices of native Americans; the diversity as well as similarity of religious expression.

NAT 200 Selected Topics in Native American Studies 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

NAT 208 Haudenosaunee Languages and Culture 3 O  
Languages and culture of the six Haudenosaunee Indian nations. Terminology and structure of Haudenosaunee languages. Creation story, Great Law of Peace, Code of Handsome Lake.

NAT 244 Indigenous Religions 3 E  
Crosslisted with: ANT 273, REL 244  
The connections between material life and religious life in cultures throughout the world. The diverse ways that various cultures inhabit their landscapes.

NAT 290 Independent Study 1-6 S  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

NAT 300 Selected Topics in Native American Studies 1-3 S  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

NAT 301 Iroquois Verb Morphology I 3 Y  
This course will analyze the Iroquois verb. The students will be introduced to the morphological structure common to all Iroquois languages.

NAT 302 Iroquois Verb Morphology II 3 Y  
This course will analyze the Iroquois verb. The students will be introduced to the morphological structure common to all Iroquois languages. This is the second course in a two part series.  
PREREQ: NAT 301.

NAT 305 Iroquois Phonetics and Phonology 3 Y  
Explores the sounds and sound systems of the Iroquois Languages (Onondaga, Mohawk, Seneca, Cayuga, Oneida, Tuscarora.) How sounds systems are related to writing systems.

NAT 306 Iroquois Syntax and Semantics 3 Y  
A study of semantic distinctions and syntactic structures in Iroquois Languages.  
PREREQ: NAT 305.

NAT 308 Iroquois Linguistics in Practice 3-6 Y  
This course will guide the student through the practical application of phonetics, phonology, semantics, morphology and syntax to their Iroquois language learning and teaching experience.  
PREREQ: NAT 301 AND 302 AND 305 AND 306.

NAT 323 Peoples and Cultures of North America 3 IR  
Crosslisted with: ANT 323  
Racial, linguistic, and cultural areas of North America from the Rio Grande to the Arctic. Selected areas and tribes. Data from archaeology, historical records, and contemporary anthropological fieldwork.

NAT 346 Native North American Art 3  
Crosslisted with: HOA 387  
Critical exploration of meanings, functions, techniques, and varieties of art in Native North American cultures, ancient to present. Attention to continuities, changes, and cultural exchanges; anthropological vs. art historical perspectives: limitations of term "art."

NAT 347 Religion and the Conquest of America 3 IR  
Crosslisted with: REL 347  
The development of America through the contact between indigenous and colonial people's divergent religious understandings of land.

NAT 348 Religion and American Consumerism 3 IR  
Crosslisted with: REL 348  
Interrogates the relationship of American religious and economic practices, as compared with Native American traditions, during the 19th and 20th centuries.

NAT 372 Race in Latin America 3  
Crosslisted with: HST 372, LAS 372  
Race relations in Latin America from the late colonial era to present. Indigenous, immigrant, and Afro-Latin American experiences and how they have changed over time. Relations of race to national identity.

NAT 400 Selected Topics in Native American Studies 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

NAT 438 Native American Health Promotion 3 Y  
Crosslisted with: HTW 438; Double Numbered with: NAT 638  
Examines Native American culture and its contribution to wellness, including indigenous foodways, fitness and indigenous knowledge as an adjunct to chemical dependency treatment. Includes the historical roots of trauma as social determinants of health disparities. Additional work required of graduate students.

NAT 441 Federal Indian Policy and Native American Identity 3 IR  
Crosslisted with: SOC 441  
Shifts in Federal Indian policy and the social construction of American Indian identity. Identity struggles and identity politics in relation to blood and descent, community, land and sovereignty.

NAT 444 Contemporary Native American Movements 3 IR  
Crosslisted with: SOC 444  
Sociological analysis of Native American movements from 1960s to the present. National and regional movements in relation to jurisdictional issues and human rights. Red Power and pan-Indian movements are considered.

NAT 445 Public Policy and Archaeology 3 IR

Crosslisted with: ANT 445; Double Numbered with: NAT 645

Proactive critique of public policy and implementation efforts to preserve and protect archaeological and historical sites and resources. Additional work required of graduate students.

NAT 447 Archaeology of North America 3 IR

Crosslisted with: ANT 447; Double Numbered with: NAT 647

Introduction to the regional prehistory of North America north of Mexico, from the late Pleistocene until European contact. Adaptation of prehistoric human populations to their ecosystems. Additional work required of graduate students.

PREREQ: ANT 141 OR 145.

NAT 456 Representations of Indigenous Peoples in Popular Culture 3 IR

Crosslisted with: ANT 456; Double Numbered with: NAT 656

Contested images used by colonizers and other non-indigenous people to represent Native Americans and other indigenous peoples. How indigenous people represent themselves in a variety of media. Additional work required of graduate students.

NAT 459 Contemporary Native North American Issues 3 IR

Crosslisted with: ANT 459; Double Numbered with: NAT 659

Contemporary issues including federal Indian policy, population controls, fishing rights, religious freedom, land disputes, gaming, repatriation, environmental colonialism, and Native American artistic response. Additional work required of graduate students.

NAT 461 Museums and Native Americans 3 IR

Crosslisted with: ANT 461; Double Numbered with: NAT 661

The contested relationships among Native North Americans and museums from earliest contact until the present. Topics include: "salvage" ethnography, collecting practices, exhibition, and recent shifts in power. Additional work required of graduate students.

NAT 490 Independent Study 1-6 S

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

## Neuroscience

NEU 211 Introduction to Neuroscience 3 Y

Crosslisted with: BIO 211

Foundations of neurobiology beginning with cellular neurobiology, moving on to integrative systems and ending with higher brain functions. Emphasizes understanding of nervous system operation. Lectures, discussion and demonstrations.

NEU 301 Introduction to Cognitive Science 3 Y

Crosslisted with: COG 301

Concepts and methods in the study and explanation of cognition. Knowledge that underlies such abilities as vision, language use, and problem solving. How it is represented and used. Comparison of methods in different disciplines studying cognition.

NEU 407 Advanced Neuroscience 3 Y

Crosslisted with: BIO 407

Detailed analysis of the anatomy, physiology, and chemistry of the nervous system and behaviors that it mediates. Topics include: neurons and electrochemical properties of neurons, sensory and motor systems, homeostasis, sleep, consciousness, learning, and memory. Additional work required of graduate students.

NEU 409 Cognitive Neuroscience of Speech and Language 3 Y

Crosslisted with: CSD 409

Neuroanatomical and neurophysiological aspects of speech and language. Role of central and peripheral nervous system in normal speech and language activities. Additional work required of graduate students.

## Public Affairs And Citizenship

PAF 101 An Introduction to the Analysis of Public Policy 3 S

Develop research and problem solving skills to create government policies that address current social and economic problems facing the United States. Students study policy problems of their choice.

PAF 110 Public Service Practicum 1 S

Students investigate the societal issues affecting members of the Syracuse community by completing a 35 hour community service requirement, attending 4 class meetings to reflect on their experiences, and completing weekly journals and two paper assignments. R

PAF 121 Leadership Practicum 1 S

A six-week practical leadership development class that explores current leadership models.

PAF 200 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PAF 275 National Security Organization 0-1 Y

Crosslisted with: ASC 205

Organization and administration of the U.S. national security forces, including strategic offensive, general purpose, and support-force components of the Department of Defense budget.

PAF 276 National Security

Organization/Aerospace Forces 0-1 Y

Crosslisted with: ASC 206

Organization and administration of the U.S. aerospace forces, including strategic defensive, general purpose, and support-force components of the Department of Defense budget.

PAF 315 Methods of Public Policy Analysis and Presentation 3 S

Opportunity to develop competencies in the application of social science methods to public policy problems.

PREREQ: PAF 101.

PAF 351 Global Social Problems 3 Y

Topics include war, inequality, population, scarcity, environment, and technology.

PAF 400 Selected Topics 1-3 S

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PAF 409 Intermediate Analysis of Public Policy 3 S

Current public policy problems (e.g., energy, health care, transportation, the Equal Rights Amendment, the draft) using a variety of research techniques.

PREREQ: PAF 101 WITH MINIMUM GRADE A.

PAF 410 Practicum in Public Policy 3 S

Students develop skills and gain knowledge about organizations that influence and implement public policy. Students are placed in community agencies for about 100 hours of work or work in applied research projects conducted by faculty.

PREREQ: PAF 101. R

PAF 416 Community Problem Solving 3 Y  
Historical problems of Syracuse. Volunteerism, community organization, and local socioeconomic conditions. Student teams work with youths from Syracuse community centers to solve local problems.  
PREREQ: PAF 101.

PAF 418 Comparative Public Policy in Practice 3  
Crosslisted with: PSC 418  
Students gain inside knowledge of London through assignment to an organization related to a student's major and interests. Weekly lectures and seminars explore the wider social and political context in which the organizations are operating. Offered in London only.

PAF 420 Interpersonal Conflict Resolution Skills 3 Y  
Enhanced communication skills to interact more effectively and solve problems creatively. Emphasizing reflective listening, problem solving, assertion, and managing conflicts among needs and values. Presenting theories demonstrating skill, practice, and critique. Additional work required of graduate students. R

PAF 421 Mediation: Theory and Practice 3 SS  
Mediation skills to facilitate the resolution of disputes and differences. Techniques of third party intervention with individuals and groups. Learning approach includes lectures, simulations, modeling and practice mediations. Additional work required of graduate students.

PAF 423 Leadership: Theory and Practice 3 SS  
Leadership skills to exercise responsible leadership and effective group membership in various contexts. Focus on individual leadership style and growth. Development of skills for a collaborative model of leadership. Additional work required of graduate students.

PAF 424 Conflict Resolution in Groups 3 SS  
Skills to enhance understanding of conflict and conflict resolution and manage conflict in intragroup and intergroup settings. Unstructured small group experience to learn how groups function and to present a context for practice.

PAF 431 Criminal Justice System 3 Y  
Seminar exploring the structure and function of the criminal justice system, as well as current issues, through readings, case analysis, court observation, and guest speakers.  
PREREQ: PAF 101.

PAF 451 Environmental Policy 3 Y  
Study of interaction among government, environmental lobbyists, industry, scientists, and news media in formation of environmental policies.

PAF 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

PAF 475 National Security Forces in Public Policy 0-3 Y  
Crosslisted with: ASC 405  
Broad range of American civil-military relations and environmental context in which defense policy is formulated.

PAF 476 National Security Forces in Contemporary American Society 0-3 Y  
Crosslisted with: ASC 406  
Impact of both technological and international developments upon strategic preparedness, military strategy, and the overall defense policy-making process.

PAF 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

PAF 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Philosophy

PHI 107 Theories of Knowledge and Reality 3 S  
An introduction to some major questions about knowledge and reality, such as the existence of God, the mind-body problem, free will and the nature and limits of knowledge. Historical and contemporary readings.

PHI 109 Introduction to Philosophy (Honors) 3 Y  
Fundamental philosophical problems. Works of major philosophers. Open to first-year students in the Honors Program. Credit will not be given for both PHI 109 and PHI 107.

PHI 111 Plato's Republic 3 IR  
Plato's thought as developed in the Republic. May include other Platonic dialogues. Recommended for first-year students and sophomores.

PHI 171 Critical Thinking 3 Y  
Presentation and evaluation of reasoning, including arguments, explanations, and the justification of decisions. Topics of current social and ethical interest will serve as examples, with one topic selected for extended study.

PHI 172 Making Decisions 3 IR  
An introductory exploration of decision making: "What is the difference between decisions made well and decisions made badly?" Selected readings from various disciplines.

PHI 175 Introduction to Social and Political Philosophy 3 S  
Classical and contemporary readings on basic topics in social and political philosophy; political obligation and authority, justice and basic rights, liberty and equality, the justification of democracy.

PHI 191 Ethics and Contemporary Issues 3 S  
Ethical reflection on some basic moral quandaries of daily life. Ideas of Plato, Aristotle, Kant applied to topics such as self-respect and decency in a technological world, abortion, honesty, friendship, moral courage, self-respect.

PHI 192 Introduction to Moral Theory 3 S  
Major philosophical theories about moral rightness, virtue, and the good life, such as utilitarian, Kantian, and Aristotelian theories. Historical and contemporary sources. Credit cannot be received for both PHI 192 and PHI 209.

PHI 197 Human Nature 3 Y  
Philosophical theories of human nature, their underlying metaphysical claims, and their ethical consequences.

PHI 200 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PHI 209 Introduction to Moral Philosophy (Honors) 3 Y  
Selected topics in moral philosophy. Credit will not be given for both PHI 209 and 192.

PHI 251 Logic 3 S  
Logic as a formal language, as a component of natural language, and as a basis of a programming language. Varieties of logical systems and techniques. Syntax, semantics and pragmatics.

PHI 293 Ethics and the Media Professions 3 S

Great traditions in ethical theory; application to television, film, new media. Role of ethics in program and content development; and in business practices. Ethical issues arising from social networking, globalization, and new trends in the media. Priority given to Newhouse students.

PHI 296 Friendship 3 IR

Reflections on the nature, varieties, rewards, and hazards of friendship. Contrast and comparison with romantic and/or sexual relationships. The role of character, trust, and mutual respect in friendship.

PHI 297 Philosophy of Feminism 3 Y

Crosslisted with: WGS 297

Philosophical analysis of feminist theory. Feminist theories about human nature, gender, relations among gender, race and class, and causes of and remedy for women's subordinate status.

PHI 307 Ancient Philosophy 3 Y

Development of Western philosophy from the Presocratic Greek philosophers to the Hellenistic period. Major figures such as Parmenides, Zeno, Socrates, Plato and Aristotle.

PHI 308 Classical Islamic Philosophy 3 IR

God, causality, freedom, human nature and knowledge, the good life and the ideal state in classical Islamic philosophy. To include authors such as Al-Kind, Al-R'z', Al-F'r'b', Ibn Sn' (Avicenna), Al-Ghaz'l', Ibn Tufayl and Ibn Rushd (Averroes).

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 311 The Rationalists 3 Y

Theories of mind, matter, God and freedom put forth by rationalist philosophers such as Descartes, Spinoza, Malebranche, and Leibniz. PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 313 British Philosophy 3 Y

Major philosophical writings of the British empiricists, including Locke, Berkeley, and Hume, with a focus on their theories of knowledge, mind, and matter. PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 317 Political Philosophy: The Social Contract Tradition and its Critics 3 IR

Crosslisted with: PSC 373

Political obligation in the writings of the three major social contract theorists, Hobbes, Locke, and Rousseau. Additional reading from their critics such as Burke, Mill, and Marx.

PHI 319 God in Political Theory 3 IR

Crosslisted with: PSC 399, REL 371

An exploration of the key approaches to the relationship between the idea of God and religion and politics in political theory and philosophy.

PHI 321 Twentieth Century Theories of Knowledge, Reality, and Meaning 3 IR

Major 20th-century movements in philosophy.

PREREQ: PHI 107 OR 109 OR JUNIOR OR SENIOR STANDING.

PHI 325 Existentialism 3 IR

Study of existentialism through the works of Kierkegaard, Nietzsche, Sartre, and others. May include relevant fiction from Gide, Sartre, Camus, Beauvoir, and others.

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 341 Philosophy of Religion 3 Y

Relationship of faith and reason. Nature and existence of God. Nature of humans and of human destiny.

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 343 Philosophy of Education 3 IR

Application of philosophical methodology and various positions in epistemology, metaphysics, and value theory to conceptual issues in education. Goals and appropriate means of education.

PHI 351 Logic and Language 3 IR

Logic as a formal language, as a component of natural language, and as a basis of a programming language. Varieties of logical systems and techniques. Syntax, semantics and pragmatics.

PREREQ: PHI 251.

PHI 354 Kierkegaard and Nietzsche 3 IR

Crosslisted with: REL 354

This course focuses on the similarities and differences of Kierkegaard's and Nietzsche's views on selfhood, society, and religion.

PHI 363 Ethics and International Relations 3 Y

Crosslisted with: PSC 363

The role of ethical concerns, imperatives, and restraints in international relations. Includes realism, just war theory, the ethics of nuclear deterrence, and other topics at the discretion of the instructor.

PHI 373 Introduction to the Philosophy of Science 3 IR

Central concepts in the analysis of science, such as law, explanation, theory, and confirmation. Controversies surrounding the nature of theoretical entities and the character of scientific change.

PREREQ: ANY PHI COURSE OR JUNIOR OR SENIOR STANDING.

PHI 375 Philosophy of Biology: What Can Evolution Explain? 3 IR

Examination of the structure, scope, and relevance of evolutionary explanations and introduces the basic concepts of philosophy of biology.

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 376 Philosophy of Mind 3 IR

Central issues and approaches in classical and/or contemporary philosophy of mind, such as the mind-body problem, mental causation, consciousness, intentionality, dualism, behaviorism, functionalism, eliminativism.

PREREQ: ONE CLASS IN PHI OR SOPHOMORE OR GREATER STANDING.

PHI 377 Philosophy of Psychology 3 IR

Conceptual and methodological issues. Such topics as innate knowledge, intentionality, rationality, intelligence, computer model of mind, concept of a person, and self-consciousness.

PREREQ: ANY PHI COURSE OR JUNIOR OR SENIOR.

PHI 378 Minds and Machines 3 Y

Philosophical issues concerning artificial intelligence. Can machines understand, learn, think rationally, and be self-conscious? Critique of the computational theory of mind. PREREQ: ANY PHI COURSE OR JUNIOR OR SENIOR STANDING.

PHI 379 American Slavery and the Holocaust 3 IR

Crosslisted with: JSP 379, PSC 379

An in-depth study of the normative structure of both American Slavery and the Holocaust, focusing upon the ways in which each institution conceived of its victims and the character of the moral climate that prevailed in each case.

PHI 381 Metaphysics 3 Y

Topics such as personal identity, possibility and necessity, the nature of time and space, freedom and determinism, and the distinction between particulars and universals.

PREREQ: ANY PHI COURSE OR JUNIOR OR SENIOR STANDING.

PHI 383 Free Will 3 IR

This course explores the concept of free will, asking: what is it, can we have any, and why should we care?

PHI 385 Personal Identity 3 IR

An exploration of the metaphysics of personhood. By virtue of what am I the same person as the child in my baby photos, given that we are so different? What makes me me?

PHI 387 Epistemology 3 Y

Topics such as the nature of knowledge, knowledge of the external world, theories of justification, a priori knowledge, skepticism, and the problem of induction.

PREREQ: ANY PHI COURSE OR JUNIOR OR SENIOR STANDING.

PHI 391 History of Ethics 3 Y

Ethical writings of such philosophers as Aristotle, Epictetus, Aurelius, Hume, Butler, Kant, Mill, Sidgwick, Nietzsche, Bradley.

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 393 Contemporary Ethics 3 Y

Selected problems and trends in recent ethical philosophy. Consideration of such questions as these: What is the nature of moral disagreement? What makes a person's life go well? What makes an action morally right?

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 394 Environmental Ethics 3 IR

A survey of several main topics in environmental ethics including animal rights, the ethics of climate change, preservation of endangered species, and obligations to future generations.

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 395 Philosophy of Art 3 IR

Chief aesthetic theories from Plato to present. Application to literature and the fine arts.

PHI 396 Stem Cells and Society 3 IR

Crosslisted with: BIO 396, REL 359

The science of stem cells and the philosophical, religious and legal complexities surrounding the research and use of stem cell technologies.

PHI 397 Philosophy of Law 3 IR

Crosslisted with: PSC 375

Central issues in the philosophy of law such as the nature of law and obligation to obey the law; justification of punishment and of state restrictions on individual liberties; justice and the law.

PHI 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PHI 401 Seminar for Philosophy Majors 3 S

Development of skills essential to philosophical research, philosophical writing, and oral presentation. Required of philosophy majors.

PREREQ: PHI MAJOR DECLARED.

PHI 406 Citizenship from Modernity to Globalization 3

Crosslisted with: PSC 406

Offered only in Florence. Citizenship as a major crossroads in European political thought: key thinkers; permutations throughout European history; impact of globalization and European unification on concepts of citizenship, liberty, and justice.

PHI 411 Philosophies of Race and Identity 3 IR

Concepts of race and racial identity, their history, various meanings, and whether they should continue to be used. Political effects of racial identities, racism, integrationism, mixed race identity, and multiculturalism.

PHI 413 Identity and Difference 3 Y

Crosslisted with: PSC 413, WGS 413

Interdisciplinary approach to examine concepts of identity and difference, challenges notions of subjectivity, nation and gender. Philosophical, political, and gender-related dimensions explored. Offered only in Florence.

PHI 415 Roots of Western Civilization 3 S

Offered only in Madrid. Course proposes an in-depth treatment of a selection of Greek and Judaeo-Christian classics and ends with discussion of modern works that bond both traditions.

PHI 417 Contemporary Political Philosophy 3 Y

Crosslisted with: PSC 382

Contemporary contractualist, rights-based, and communitarian theories of social justice.

PHI 418 Hegel, Marx, and Nietzsche 3 IR

Double Numbered with: PHI 618

Interrelationships and contemporary debate over interpretations of their major works.

Topics include: philosophy of history, human nature, dialectics, theory of knowledge, alienation, concepts of self and freedom.

Additional work required of graduate students. PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 422 Twentieth Century French and German Philosophy 3 IR

Double Numbered with: PHI 622

Twentieth-century French and German philosophical criticism of the legacy of the Enlightenment and its conceptions of subjectivity and epistemology. Critical theory, hermeneutics, poststructuralism, and psychoanalytically inspired theories.

Additional work required of graduate students. PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 425 Post-colonialism and Philosophy 3

Crosslisted with: LAS 425

The philosophical analysis and critique of colonialism's representations of other cultures and justifications for intervention, as well as debates over effective forms of resistance.

PHI 435 Modern Judaic Thought 3 O

Crosslisted with: JSP 435, REL 435

The philosophical implications of Judaism's encounter with modernity. Close readings of selected modern Jewish thinkers. Issues and figures vary. R3, 9 credits maximum

PHI 441 Topics in Feminist Philosophy 3 IR

Crosslisted with: WGS 441

Feminist approaches to traditional philosophical questions in various areas, including epistemology, ethics, metaphysics, and philosophy of science. Use of philosophical tools and methods on questions regarding the subordination of women.

PHI 487 History of Epistemology 3 IR

Theories and problems of epistemology through study of their development by such philosophers as Plato, Descartes, Locke, Hume, Kant, Russell, Ayer, Gettier, and Alston.

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

PHI 490 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

PHI 493 Contemporary Ethical Issues 3 IR

Philosophical study of a selection of contemporary ethical issues, such as racism, sexism, inequality, violence, and poverty.

PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.

- PHI 494 Bioethics: Technology/Science/Human Rights 3 S  
Offered only in Strasbourg. Examines interface of biological science and ethical concern by employing philosophical principles and procedures first to clarify bioethical problems and then to develop attempts at resolving them. Credit given for PHI 494 or PHI 594/REL 552, but not both.
- PHI 495 Senior Capstone Project for Ethics 3 Y  
For Ethics majors. Focused on producing a significant research project in ethics related to primary major. Developing important research skills, presenting work in class and participating with classmates for feedback.  
PREREQ: PHI 391 AND PHI 393.
- PHI 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum
- PHI 500 Selected Topics 1-3 IR  
Study of a significant philosopher or philosophical movement. R
- PHI 510 Topics in Ancient Philosophy 3 Y  
Examination of principal works such as Plato's Sophist or Aristotle's Metaphysics, or of central themes such as weakness of will or knowledge and belief. R
- PHI 550 Selected Topics in Philosophy 1-3 IR  
Study of a significant philosophical problem. R
- PHI 551 Mathematical Logic 3 IR  
Predicate calculus with identity, its relationship to mathematics and to computer theory. Important results concerning independence, consistency, completeness, decidability and computability.  
PREREQ: PHI 251 OR MAT 275 OR CIS 275.
- PHI 552 Modal Logic 3 IR  
Systems of modal logic (logic of the terms "necessary" and "possible"). Formalization and evaluation of modal arguments and basic concepts of metatheory and semantics. Related logics.  
PREREQ: PHI 251.
- PHI 555 Philosophy of Mathematics 3 IR  
Diverse ways in which philosophers from Plato to Wittgenstein have understood the concept of mathematics.  
PREREQ: ANY PHI OR JUNIOR STANDING.
- PHI 565 Philosophy of Language 3 IR  
Concept and phenomenon of language. Logical, epistemological, and metaphysical ramifications of natural language and speech.  
PREREQ: PHI 251.
- PHI 573 Philosophy of Physical Science 3 IR  
Impact of classical mechanics, relativity, and quantum theory on philosophical accounts of space, time, matter, and causality.  
PREREQ: ANY PHI OR JUNIOR STANDING.
- PHI 575 Philosophy of Social Science 3 O  
Crosslisted with: SOS 575  
Philosophical and methodological issues in social and behavioral science. Role of laws in explanation of human action, methodological individualism and holism, functional explanation, value-neutrality, behaviorism, and computer simulation.
- PHI 576 Philosophy of Mind 3 IR  
Advanced study of topics in philosophy of mind.  
PREREQ: PHI 301 OR 376 OR 377 OR 378 OR GRADUATE STANDING.
- PHI 583 Metaphysics 3 IR  
Introduction to metaphysical inquiry.  
PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING.
- PHI 593 Ethics and the Health professions 3 IR  
Crosslisted with: REL 551  
Ethical theories in professional, organizational, and political-economic fields in health care. Specific issues: assisted suicide, professional codes, ethics of "cost-cutting" and justice with respect to care.
- PHI 594 Bioethics 3  
Crosslisted with: REL 552  
Use of ethical theory in thinking about case problems in health care. Moral dilemmas: use of reproductive technologies, abortion, surrogate motherhood, research with humans, refusal and withdrawal of treatment, physician-assisted suicide.
- Physics**
- PHY 101 Major Concepts of Physics I 4 Y  
Explores the fundamental laws which govern the universe with emphasis on the concept of energy as a unifying principle. No science prerequisites. Knowledge of elementary algebra required. Includes Laboratory.
- PHY 102 Major Concepts of Physics II 4 Y  
Explores the fundamental laws which govern the universe. Presents overview of basic ideas and contemporary research in physics. No science prerequisites. Knowledge of elementary algebra required. Includes Laboratory.  
PREREQ: PHY 101 OR 211 OR AP PHYSICS B EXAM SCORE MIN 3 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3.
- PHY 211 General Physics I 3 S  
First half of a two semester introduction to classical physics including mechanics and thermal physics. Uses calculus. Knowledge of plane trigonometry required.  
COREQ: (PHY 221 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3) AND (MAT 285 OR 295 OR AP MAT CALC AB EXAM SCORE MIN 3 OR AP MAT CALC BC EXAM SCORE MIN 4).
- PHY 212 General Physics II 3 S  
Second half of a two semester introduction to classical physics including electricity, magnetism and light.  
PREREQ: ((PHY 211 OR 215) AND PHY 221) OR AP PHYSICS C MECH EXAM SCORE MIN 3; COREQ: PHY 222 OR AP PHYSICS C ELEC & MAG EXAM SCORE MIN 3.
- PHY 215 General Physics I (Honors and Majors) 3 S  
Introductory calculus-based physics emphasizing topics important in modern research and technology. for students in the Honors Program, prospective physics major, and others with strong science interests. Newtonian mechanics, chaos, sound and fluids. Student cannot receive credit for both PHY 215 and PHY 211.  
COREQ: (PHY 221 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3) AND (MAT 286 OR 295 OR AP MAT CALC AB EXAM SCORE MIN 3 OR AP MAT CALC BC MIN SCORE 4).
- PHY 216 General Physics II (Honors & Majors) 3 S  
Electricity, magnetism and light. Student cannot receive credit for both PHY 216 and 212.  
PREREQ: ((PHY 211 OR 215) AND PHY 221) OR AP PHYSICS C (MECH) EXAM SCORE MIN 3; COREQ: (PHY 222 OR AP PHYSICS C (ELEC & MAG) EXAM SCORE MIN 3) AND (MAT 286 OR 296 OR AP MAT CALC BC EXAM SCORE MIN 4 OR AP MAT AB EXAM SCORE MIN 4).

PHY 221 General Physics Laboratory I 1 S

Techniques of laboratory work: treatment of random errors, graphical representation of data. Experimental demonstration of principles of mechanics, thermodynamics, and waves (of vector forces, conservation of momentum and energy, thermal properties of gases).

COREQ: PHY 211 OR 215 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3.

PHY 222 General Physics Laboratory II 1 S

Experimental study of principles of electromagnetism and their application in electrical circuits. Use of electronic instruments, such as the oscilloscope.

COREQ: PHY 212 OR 216 OR AP PHYSICS C ELEC & MAG EXAM SCORE MIN 3.

PHY 250 Physics Journal Workshop 1 Y

Introduction to physics research by reading and critical discussion of articles from the current or recent physics literature. For physics majors and minors; others may enroll with permission of instructor.

PREREQ: PHY 211 OR 215 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3. R

PHY 270 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination.

Limited to those in good academic standing. R

PHY 290 Independent Study 1-6 SI

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

PHY 305 Solar Energy Science and Architectures 3 IR

Properties of solar energy. Photons, blackbody radiation, and the planetary greenhouse effect. Solar thermal, solar electric, and biomass applications.

Architectural and economic implications. COREQ: MAT 285 OR 295 OR AP MAT CALC AB EXAM SCORE MIN 3 OR AP MAT CALC BC EXAM SCORE MIN 4.

PHY 307 Science and Computers I 3 Y

An introduction to the use of computers to solve problems in science. Development of algorithms, numerical solutions, plotting and manipulating data, statistical analysis and problems involving random numbers.

COREQ: PHY 211 OR 215 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3.

PHY 308 Science and Computers II 3 IR  
Continuation of PHY 307. Exploration of topics in computational science using modern programming and visualization techniques. A core component comprises successful completion of computer-based labs.

PREREQ: PHY 307.

PHY 312 Relativity and Cosmology:

Einstein and Beyond 3 Y

Introduces Einstein's special and general relativity. Understanding  $E=mc^2$ , curved space-time, higher dimensions, and the Big Bang. No science prerequisite. For non-majors and majors. SCI 612 students will develop educational materials for the teaching of relativity.

PREREQ: MAT 285 OR 295 OR AP MAT CALC AB EXAM SCORE MIN 3; COREQ: MAT 286 OR 296 OR AP MAT CALC AB EXAM SCORE MIN 4 OR AP MAT CALC BC EXAM SCORE MIN 4.

PHY 315 Biological and Medical Physics 3 Y

Double Numbered with: PHY 615

Signal, energy, and information processing by cells. Evolution; cell structure and function; neurophysiology; biological control, chaos; biological motors, pumps, and receptors; systems analysis, scaling, dimensionality; spectroscopy and biomedical imaging.

Additional work required of graduate students.

PREREQ: PHY 212 OR 216 OR AP PHYSICS C (ELEC & MAG) EXAM SCORE MIN 3.

PHY 317 Stellar and Interstellar Astrophysics 3 O

Introduction to astrophysics, with emphasis on stars and the interstellar medium. Physical laws of gravitation, charged particles, and radiation, applied to nucleosynthesis and stellar formation/evolution. Physical and chemical processes in the interstellar medium.

PREREQ: PHY 102 OR 212 OR 216 OR AP PHYSICS B EXAM SCORE MIN 3 OR AP PHYSICS C (ELEC & MAG) MIN SCORE 3; COREQ: MAT 286 OR 296 OR AP MAT CALC AB EXAM SCORE MIN 4 OR AP MAT CALC BC MIN SCORE 4.

PHY 319 Introduction to Astrobiology 3 E

The emergence and development of life in the universe. Topics: elements of astrophysics, origin of life on earth, current research in astrobiology.

PREREQ: MAT 285 OR 295 OR AP MAT CALC AB EXAM SCORE MIN 3 OR AP MAT CALC BC MIN SCORE 4.

PHY 344 Experimental Physics I 4 S

Laboratory projects emphasizing mechanics, electromagnetism, and atomic physics.

Projects include chaos in a compass needle, the Franck-Hertz experiment, and the Hall effect.

PREREQ: (PHY 211 OR 215 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3) AND (PHY 212 OR 216 OR AP PHYSICS C (ELEC & MAG) EXAM SCORE MIN 3).

PHY 351 Instrumentation in Modern Physics 3 Y

Double Numbered with: PHY 651

Familiarizing students with instrumentation used in modern laboratories. Topics include detectors used in science and medicine, electronic noise mechanisms, computerized data acquisition systems. Independent research projects are encouraged. Additional work required of graduate students.

PREREQ: PHY 221 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3; COREQ: PHY 222 OR AP PHYSICS C (ELEC & MAG) EXAM SCORE MIN 3.

PHY 360 Vibrations, Waves and Optics 3 Y

Exploration of the rich behavior of vibrating systems. Simple harmonic motion, driven oscillators and resonance, normal modes, Fourier analysis, geometrical optics, diffraction and interference.

PREREQ: PHY 212 OR 216 OR AP PHYSICS C (ELEC & MAG) EXAM SCORE MIN 3.

PHY 361 Introduction to Modern Physics 3 Y

Modern physical theories, including relativity, quantum mechanics. Applications to molecular, atomic, and nuclear structures. Principles of lasers, nuclear reactors. Particle accelerators.

PREREQ: PHY 212 OR 216 OR AP PHYSICS C (ELEC & MAG) EXAM SCORE MIN 3.

PHY 398 Junior seminar in Energy and its Impacts 1 Y

Interdisciplinary examination of energy use and its impact on the natural and social environment. Special focus on issues in the Syracuse area.

PREREQ: JUNIOR OR SENIOR LEVEL AND ENERGY AND ITS IMPACTS MAJOR..

PHY 399 Practicum and Seminar in Physics Education 1-3 S

Student peers assist in a physics class and participate in a physics education seminar. Questioning, curriculum, teaching methods, assessment.

PHY 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PHY 424 Electromagnetics I 3 Y  
Crosslisted with: ELE 324  
Vector analysis, electrostatics, Laplace's equation, dielectrics, magnetostatics, magnetic materials.  
PREREQ: (PHY 212 OR 216 OR AP PHYSICS C (ELEC & MAG) EXAM SCORE MIN 3) AND MAT 397.

PHY 425 Electromagnetics II 3 Y  
Crosslisted with: ELE 325  
Faraday's Law, displacement current, Maxwell's equations, plane waves, power flow in waves, reflection and transmission of waves, wave-guides, radiation, and antennas.  
PREREQ: PHY 424 OR ELE 324.

PHY 444 Soft Matter 3 O  
Introduction to the physics of soft (easily deformable) materials such as polymers, liquid crystals, membranes, and colloids. Learn to appreciate the myriad of phases in the world of squishy physics and their statistical behavior.

PHY 451 Problems of Contemporary Physics 2 Y  
Integrated approach to solving physics problems that may cross traditional boundaries between courses. Improve the preparation of students for post-graduate education and physics-related careers.  
COREQ: PHY 361.

PHY 462 Experimental Physics II 4 Y  
Laboratory projects emphasizing optics and nuclear physics. Projects include diffraction, interferometry, detection of nuclear radiation, interaction of radiation and matter, and nuclear lifetime measurements.  
PREREQ: PHY 344.

PHY 470 Experience Credit 1-6 SI  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

PHY 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

PHY 498 Capstone Seminar in Energy and its Impacts 3 Y  
Study of a local energy-related issue. Study will be carried out in an interdisciplinary team. For students in the Integrated Learning Major on Energy and its Impacts.  
PREREQ: PHY 398.

PHY 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

PHY 523 Advanced Mechanics 3 Y  
Moving coordinate systems, systems of particles, mechanics of rigid bodies. Lagrangian mechanics, normal modes of vibrating systems.  
PREREQ: PHY 360.

PHY 531 Thermodynamics and Statistical Mechanics 3 Y  
Laws of thermodynamics, temperature, work, heat. Thermodynamic potentials and methods. Application to special systems, low-temperature physics. Classical statistical mechanics. Quantum statistics. Connections between thermodynamics and statistical mechanics.  
PREREQ: PHY 361.

PHY 567 Introduction to Quantum Mechanics I 4 Y  
Problems with classical physics; one dimensional Schrodinger equation, concepts and illustrative problems; N particle systems including separation of center of mass, identical particles, and Pauli principle; Schrodinger equation in three dimensions.  
PREREQ: PHY 361 AND (PHY 424 OR ELE 324).

PHY 568 Introduction to Quantum Mechanics II 3 Y  
Angular momentum including raising/ lowering operators and spherical harmonics; hydrogen atom; spin and addition of angular momentum; time independent perturbation theory; structure of and radiation from atoms; scattering; and elementary particles.  
PREREQ: PHY 567.

PHY 576 Introduction to Solid-State Physics 3 Y  
Crosslisted with: ELE 642  
Elementary aspects of physics of solids; crystal lattices and diffraction, phonons and thermal properties in crystals, elementary band theory, and semi-conductor physics.  
PREREQ: PHY 567.

PHY 580 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

PHY 581 Methods of Theoretical Physics I 3 Y  
Calculus of variations. Fourier series and integrals. Matrices. Linear vector spaces. Orthogonal polynomials. Sturm-Liouville equations. Singular points of differential equations. Special functions. Distributions.  
PREREQ: MAT 511.

## Polish

POL 101 Polish I 4 Y  
Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Polish. No prior experience or admission by placement testing. Students cannot enroll in POL 101 after successfully completing POL 102, POL 201, or POL 202 or higher.

POL 102 Polish II 4 Y  
Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Polish. Students cannot enroll in 102 after successfully completing POL 201, POL 202 or higher.  
PREREQ: POL 101.

POL 201 Polish III 4 Y  
Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Polish. Students cannot enroll in POL 201 after successfully completing POL 202 or higher.  
PREREQ: POL 102.

POL 202 Polish IV 4 Y  
Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Polish. Students cannot enroll in POL 202 after successfully completing a course higher than POL 202.  
PREREQ: POL 201.

## Portuguese

### POR 101 Portuguese I 4

Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Portuguese. No prior experience or admission by placement testing. Students cannot enroll in POR 101 after successfully completing POR 102, 201, or 202 or higher.

### POR 102 Portuguese II 4

Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Portuguese. Students cannot enroll in POR 102 after successfully completing POR 201, POR 202 or higher.

### POR 201 Portuguese III 4

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Portuguese. Students cannot enroll in POR 201 after successfully completing POR 202 or higher.  
PREREQ: POR 102.

### POR 202 Portuguese IV 4

Continuing proficiency-based course which further refines and expands previously acquired linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Activities are conducted in Portuguese. Students cannot enroll in POR 202 after successfully completing a course higher than POR 202.  
PREREQ: POR 201.

## Persian

### PRS 101 Persian I 4

Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Persian. No prior experience or admission by placement testing. Students cannot enroll in PRS 101 after successfully completing PRS 102, PRS 201, or PRS 202 or higher.

### PRS 102 Persian II 4

Continuing proficiency-based course, which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Persian. Students cannot enroll in PRS 102 after successfully completing PRS 201, PRS 202 or higher.  
PREREQ: PRS 101.

### PRS 201 Persian III 4

Continuing proficiency-based course, which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Persian. Students cannot enroll in PRS 201 after successfully completing PRS 202 or higher.  
PREREQ: PRS 102.

### PRS 202 Persian IV 4

Continuing proficiency-based course, which further refines and expands previously acquired linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Activities are conducted in Persian. Students cannot enroll in PRS 202 after successfully completing a course higher than PRS 202.  
PREREQ: PRS 201.

## Political Science

### PSC 121 American National Government and Politics 3 S

American political institutions. Basic principles embedded in structure and practices of American government. Practical consequences of this political system for the citizen. Credit is given for PSC 121 or PSC 129, but not both.

### PSC 122 American State and Local Government and Politics 3 IR

Role of state and local politics in American politics. Changing notions of proper political process and governance. Nature of the political process. State and local interactions. Politics and policy pursuance.

### PSC 123 Comparative Government and Politics 3 Y

Comparison of selected governmental institutions, individual and collective political actors, and issues across the industrialized and developing world. Particular attention to dynamics of socioeconomic and political change.

### PSC 124 International Relations 3 S

Foreign policy, decision making, comparative foreign policy, international transactions, and the international system. Credit is given for PSC 124 or PSC 139, but not both.

### PSC 125 Political Theory 3 Y

Introduction to theories of major modern political philosophers (Locke, Rousseau, Hume, J.S. Mill, Marx). Contemporary theories of liberty, justice, and equality.

### PSC 129 American National Government and Politics (Honors) 3 IR

American political institutions and their founding. The public role in a democratic regime. Ability of contemporary arrangements to meet the demands of the modern world. Credit is given for PSC 121 or PSC 129, but not both.

### PSC 139 International Relations (Honors) 3 IR

Major world views which comprise contemporary international relations. Lectures, readings, journal writing, and small group discussion. Credit is given for PSC 124 or PSC 139, but not both.

### PSC 141 Liberty and Power from the Ancient World to Modernity 3 Y

Overview of those historical, social and political processes that have led to the birth of the modern world. Offered only in Florence for Discovery Florence students.

### PSC 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### PSC 202 Introduction to Political Analysis 3 S

Introduction to important political science concepts; basics of political argumentation and reasoning; and basic quantitative research and analysis techniques.

### PSC 270 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### PSC 290 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

### PSC 300 Selected Topics 1-3 S

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### PSC 302 Environmental Politics and Policy 3 Y

The environmental policy process and the politics that influence the formulation and adoption of environmental policies in the United States.

**PSC 303 The Development of the American State 3 IR**

The size and scope of the national government has been a central organizing principle of political conflict throughout American history. This course explores the American state's changing relationship to society and economy over time.

**PSC 304 The Judicial Process 3 Y**

American legal structure and process: policy making by courts, relations with other branches of the national government, and the changing role of the Supreme Court in our federal political system.

**PSC 305 U.S. Congressional Politics 3 IR**

Functions of the legislative branch: representation, control of the public purse, and executive oversight. Recent changes brought about by electoral forces and internal reforms.

**PSC 306 African American Politics 3 Y**

Crosslisted with: AAS 306

Introduction to the African American experience in the American political system, from the colonial period to the present. Organization/leadership, federal institutions/relations, sociopolitical movements, and electoral politics.

**PSC 307 The Politics of Citizenship 3 Y**

How governments understand membership through citizenship laws and practices. Includes the history of citizenship, evolution of modern citizenship, migration, and "post-national" citizenship.

**PSC 308 The Politics of U.S. Public Policy 3 IR**

Relationship between American political institutions, politics and public policy. Significance of public policies for democratization in the U.S., highlighting dynamics of race, class, and gender. Development and implementation of policies.

**PSC 309 Interest Group Politics 3 IR**

Uses theoretical and real world materials to examine the strengths and weaknesses of interest groups in American politics. The role of groups in shaping public interest and influencing policy decisions.

**PSC 311 American Political Parties 3 IR**

Historical and contemporary roles of political parties in American government and politics.

**PSC 312 Urban Government and Politics 3 IR**

Changes in populations, notions of governance, and means of governance in city and metropolitan politics. Effects of political arrangements on responses to people and the public policies pursued. Role of private power.

**PSC 313 Campaign Analysis 3 IR**

In-depth analysis of specific campaigns. Review of literature, followed by analysis, involving: media review, targeting analyses, survey writing, polling, survey analysis, exit polling, and review of election results. Acquisition and application of skills.

**PSC 314 Public Opinion and Electoral Behavior 3 IR**

American mass public; origins, nature, effects of its political beliefs, and patterns of its voting behavior.

**PSC 315 Politics and Media 3 Y**

Sometimes called the 'fourth branch' of government, the media are an integral part of the political landscape. This course explores the role of the media in the operation of government and in the conduct of politics.

**PSC 316 The Supreme Court in American Politics 3 Y**

The Court's dual character as a legal and political institution. Explores the Court's decision-making process and the impact of those decisions on politics and policy.

**PSC 317 Local Internship 3 S**

Students work in conjunction with members of Congress, state legislature, or in local political campaigns. Representatives of these offices come to seminars for discussions about working in government and politics.

**PSC 318 Technology, Politics, and Environment 3 Y**

Advanced technology as a focal point of governmental and political conflict in the United States and other nations. Interplay of technology and politics as a struggle over who will control the future and for what ends.

**PSC 319 Gender and Politics 3 Y**

Crosslisted with: WGS 319  
Relationships between gender and American political institutions, law, and policymaking processes. How social movements based on gender, prevailing gender ideologies, and gender relations have shaped American politics. Exploring how the American state has shaped the political meanings and relative positions of power associated with men and women.

**PSC 321 Populism and Conspiracy Culture 3 Y**

Populist movements and roots of conspiracy culture in American politics. Populist ideology centered around suspicion of a manipulative power elite is a recurrent theme in American political discourse of both left and right.

**PSC 322 International Security 3 Y**

Introduction to the field of security studies within the discipline of Political Science. Case studies with a special focus on the U.S. role in fostering international security, and contemporary dilemmas for U.S. national security.

**PSC 323 Politics of the Executive Branch 3 IR**

This course offers in-depth examination of the historical development of the U.S. Executive branch, particularly the capacity of the President and the bureaucracy for making and implementing policy within the larger political system.

**PSC 324 Constitutional Law I 3 Y**

Introduction to American constitutional interpretation. Historical survey of basic Supreme Court doctrines focusing on the first 150 years of judicial action. The Court's role as a political institution.

**PSC 325 Constitutional Law II 3 Y**

Contemporary constitutional interpretation, focusing on the Bill of Rights and the fourteenth amendment. Issues of race, gender, privacy, property, free speech, religious diversity, and political representation.

**PSC 326 Foundations of American Political Thought 3 IR**

Crosslisted with: HST 383  
American political thought from the Puritans to Lincoln. American Revolution, establishment of the Constitution, and Jeffersonian and Hamiltonian systems.

**PSC 327 Modern American Political Thought 3 IR**

Crosslisted with: HST 342  
American political thought from the impact of Darwinian science to the present. Basic thought patterns of 20th-century public life and philosophical foundations of contemporary political movements.

**PSC 328 American Social Movements 3 IR**

Crosslisted with: WGS 318  
Social movements were always integral to American politics. Includes emergence, strategies, political context and influence of temperance, abolition of slavery, women's suffrage, labor, civil rights, anti-war, feminism, nuclear freeze, gay rights, and global justice movements.

PSC 329 The Modern American Presidency 3 Y

Crosslisted with: HST 341

Evolution, operation, and perceptions of the American presidency during the last quarter-century. Modern chief executives and factors contributing to their success or failure.

PSC 331 Canadian Politics 3 IR

An introduction to Canadian politics with a comparative perspective, this course covers core features of national government (parliament, courts, federalism) plus distinctive aspects such as Quebec nationalism, multiculturalism and indigenous rights.

PSC 333 Politics of Latin America 3 Y

Crosslisted with: LAS 333

Political processes and institutions in Latin America. The region's experience with modernization.

PSC 334 Mexico and the United States 3 O

Crosslisted with: LAS 335

The history and politics of Mexico, with special attention to relations between Mexico and the United States and the politics of immigration, NAFTA, the drug trade, and other bilateral issues.

PSC 335 Politics of East Asia 3 Y

Domestic and international politics of East Asia broadly defined. Political development and structure of major countries: Japan, Korea, and China. Politics of public policy, international, and transnational relations in the region.

PSC 337 Political Psychology 3 IR

Principles of social and cognitive psychology applied to political life. How political beliefs are developed and maintained, how such beliefs affect political behavior, and how individuals matter in policymaking as well as in the mobilization of political movements.

PSC 338 Comparative Political Parties 3 IR

How and why political parties form. The impact of electoral rules, social structures, and other factors on their organization, influence, and competition. Comparison of parties and national party systems around the world.

PSC 339 Transitions to Democracy 3 IR

The underlying forces and processes of political regime change and transitions to democracy in the modern world.

PSC 341 Politics of Africa 3 Y

Crosslisted with: AAS 341

Historical foundations of the move towards political freedom, democracy and self rule in Africa. Dynamics of the political process.

PSC 342 Religion and Politics in the Israeli-Palestinian Conflict 3 IR

Crosslisted with: JSP 342, MES 342, REL 342

Considers the extent to which religion matters in an enduring ethno-nationalist conflict. Approaches the Israeli-Palestinian conflict from an interdisciplinary perspective that explores the intersection of religion and politics.

PSC 343 Politics of Europe 3 Y

The politics of Western and Eastern Europe. Domestic political and political economic institutions and the process of European integration.

PSC 344 Politics of the Middle East 3 Y

Crosslisted with: MES 344

Religious, political, economic, and social dimensions of life in modern Middle East. Legacy of Islam, encounter with Western modernity, Arab-Israeli conflict, and political economy of the region.

PSC 345 Islam and Politics in Asia 3 IR

Crosslisted with: MES 345

Survey of the diverse and protean role Islam plays in Asian public life by analyzing the variegated cultural, political, religious, and social milieu that it has encountered in Central, South, and Southeast Asia.

PSC 346 Comparative Third World Politics 3 Y

Crosslisted with: AAS 346

Examines thematically and comparatively the political systems of South America, Asia, and Africa, exploring topics such as colonization, decolonization, nation-building, the postcolonial state and its institutions, the recent wave of democratization, and the challenges of socioeconomic development.

PSC 347 Politics of Russia 3 Y

Politics of Russia and the former Soviet Union. Political institutions, and political, economic, and social change, particularly since 1991.

PSC 348 Politics and the Military 3 IR

The military's role in the modern state and in modern society. Broad geographic coverage, including the United States, Europe, Latin America, Africa, the Middle East, and Asia.

PSC 349 Politics of Iran 3 IR

Crosslisted with: MES 349

Historical and theoretical understanding of modern Iranian politics and society from the late 19th century to the present time.

PSC 350 Problems in International Relations 3 IR

Selected problems and issues. Specific topics chosen by the instructor. R

PSC 351 Political Economy of Development 3 Y

The interrelationship of political, social, and economic factors that produce development outcomes. The role of the state in markets and the relationship between democracy and development.

PSC 352 International Law 3 IR

Fundamental principles and recognized rules that make up international law concerning conduct of nations. Protection of nationals abroad, jurisdiction in territorial waters and on high seas, rights and duties of diplomats and consuls, and the law of treaties.

PSC 353 International Organization 3 Y

Causes and consequences of collective actions taken by state, intergovernmental, and transnational nongovernmental individual and collective actors. May include global and regional level issues of (human) security, economic and social development, environmental protection, and resource management.

PSC 354 Human Rights and Global Affairs 3 IR

Human rights are today a focal point of rhetorical contestation among states, intergovernmental organizations, and transnational networks. This seminar surveys the opportunities and limits of human rights language in promoting social and political change.

PSC 355 International Political Economy 3 IR

Institutions and politics of international economic relations. Trade, investment, macro-economic policy coordination, economic development, global resource issues, and the causes and consequences of global economic integration.

PSC 356 Political Conflict 3 Y

Theory and practice of political conflict and peacemaking. Issues may include class, race, gender and ethnicity, war, terrorism, and protest.

PSC 357 U.S. Foreign Policy 3 Y

Diplomacy of the United States toward major areas or powers, i.e., Latin America, Far East, and the Soviet Union. National defense, trade, and international organization.

PSC 358 Latin American International Relations 3 Y

Crosslisted with: LAS 358

Examines Organization of American States and other regional institutions. Considers how regional cooperation efforts have been shaped by political, economic, and cultural diversity of the countries in the region and by the changing global context.

PSC 359 Foreign Policymaking 3 IR

How governments and intergovernmental organizations make foreign policy.

Formulation of policy, selection among policy strategies, implementation, and evaluation of policy outcomes. Contemporary foreign policies.

PSC 361 Politics in the Cyber-Age 3 Y

The impact of the information technology revolution on contemporary domestic and global political systems.

PSC 362 Religion, Identity and Power 3

Crosslisted with: REL 355, SOC 362

Examines ascendancy of religious movements; prominence of religious ideas; secularization and religion as a political force; conceptual and historical issues in relation to religious ideas and movements, including various Islamic revivals and the Christian right. Offered in London and Madrid only.

PSC 363 Ethics and International Relations 3 O

Crosslisted with: PHI 363

The role of ethical concerns, imperatives, and restraints in international relations. Includes realism, just war theory, the ethics of nuclear deterrence, and other topics at the discretion of the instructor.

PSC 364 African International Relations 3 Y

Crosslisted with: AAS 364

The place of Africans in the international system; specific issues emanating from the decolonization process. Issues of militarism, humanitarianism, peacekeeping, and genocide; challenges of globalization.

PSC 365 International Political Economy of the Third World 3 Y

Crosslisted with: AAS 365

Political and economic problems developing countries face in international economic relations, attempts to solve them. Discusses the making of the international system, the "third world," globalization, trade, debt, multinational corporations, multilateral lending agencies (IMF, World Bank).

PSC 366 Representations of the Middle East 3 IR

Crosslisted with: MES 366

The politics of "gazing" and cultural imagination through critical analysis of how the mass media articulates, transmits, promotes and legitimizes knowledge and information about the Middle East.

PSC 367 Oil, Water and War 3 IR

Crosslisted with: MES 367

Examines current level of knowledge about historical connections among war and the resources of petroleum and fresh water. Also looks at how alternative claims about these goods will be expressed in the future.

PSC 368 Islam and the West 3 Y

Crosslisted with: HST 368, MES 368

Topics include globalization and interdependency of faiths, the "clash of civilizations", relations between religion and state in Islam and Christianity and whether it is possible to separate the world into monolithic entities "Islam" and "West". Offered in London only.

PSC 369 Global Migration 3 IR

How should local communities, national governments, and international institutions respond to economic migrants and refugees? Are their policies effective? These questions will be explored through historical and contemporary perspectives from around the world.

PSC 371 Democratic Theory and Politics 3 IR

Democracy as a political concept and political process, in a comparative context. Some critiques and challenges facing democratic theory and practice.

PSC 372 Marxist Theory 3 IR

Fundamentals of Marxism through the original writings of Marx and Engels. Several interpretations of the various facets of Marxist theory, as developed by social democrats, Leninists, and other socialist thinkers.

PSC 373 Political Philosophy: The Social Contract Tradition and its Critics 3 Y

Crosslisted with: PHI 317

Political obligation in the writings of the three major social contract theorists, Hobbes, Locke, and Rousseau. Additional reading from their critics such as Burke, Mill, and Marx.

PSC 374 Law and Society 3 IR

Interaction of law with social values, customs, and organization. Relationship between a society's law and its broader environment.

PSC 375 Philosophy of Law 3 IR

Crosslisted with: PHI 397

Central issues in the philosophy of law such as the nature of law and obligation to obey the law; justification of punishment and of state restrictions on individual liberties; justice and the law.

PSC 376 Revolution and Civil Violence 3 IR

Causes and consequences of revolutions.

Political significance of riots. Psychology of revolutionary participation. Changing historical patterns of political violence. Western and non-Western forms of civil strife.

PSC 377 Religion and Politics 3 IR

Reciprocal relations between religious groups and political systems, especially in the United States. Religious groups as the objects of policy decisions, as sources of governmental legitimacy, and as agents of political and social change.

PSC 378 Power and Identity 3 Y

Examines classic and contemporary theories of identity and their manifestation in political practice. Also examines basic theories about how identities are constructed and their meaning/import. Covers race, ethnicity, sexuality, gender, and foreignness.

PSC 379 American Slavery and the Holocaust 3 IR

Crosslisted with: JSP 379, PHI 379

An in-depth study of the normative structure of both American Slavery and the Holocaust, focusing upon the ways in which each institution conceived of its victims and the character of the moral climate that prevailed in each case.

PSC 381 Political Fiction and Film 3 IR

The powers of fictional narrative to depict and explain politics. Content varies. Possible themes include comparison of religion, science, and politics; totalitarian movements; political assassinations; political morality and power.

PSC 382 Contemporary Political Philosophy 3 Y

Crosslisted with: PHI 417

Contemporary contractualist, rights-based, and communitarian theories of social justice.

PSC 383 Civil Society and Democracy 3 IR

Understanding the politics that occurs between individual citizens and citizens groups. Is civic trust diminishing? How civil society functions in new democracies, the impact of suburbanization, religion, and consumerism.

PSC 384 Sexuality and the Law 3 E

Crosslisted with: QSX 384

Examines politically significant legal debates regarding gender and sexuality. Issues covered may include privacy rights, discrimination on the basis of sexual orientation and gender identity, family law and parental rights, and same-sex marriage.

PSC 385 Rationality and Politics 3 IR

Introduction to the concept of technical rationality and its role in contemporary political science.

PSC 386 Gender, Militarism, and War 3 IR

Crosslisted with: SOC 354, WGS 354

Militarism and war are examined by focusing on their relationship to gender. What does gender have to do with war? How do masculinity and femininity along with race work to create soldiers and enemies?

PSC 387 Ethnic Conflict 3 Y

Examines ethnicity and its effects on politics. Engages the concept of ethnicity, how it structures politics and sparks conflict, and what political tools exist to manage these conflicts.

PSC 388 Politics of Globalization 3 Y

Examines the causes and consequences of globalization. In particular we explore who wins and who loses from political and economic globalization.

PSC 389 Politics of India 3 Y

Crosslisted with: SAS 389

Introduction to politics in post-independence India. Surveys India's party system, institutional structures, political practices and socio-economic policies. Examines the reasons for India's democratic stability despite high levels of illiteracy, poverty and ethnic heterogeneity.

PSC 391 Revolutions in the Middle East 3 IR

Crosslisted with: MES 391

A comparative study of revolutions in the Middle East in terms of causes, processes and outcomes.

PSC 392 Sociology of Islamic

Fundamentalism 3 IR

Crosslisted with: MES 392

A study of the social origins and political outcomes of Islamic Fundamentalism.

PSC 393 Middle Eastern Political Systems 3 IR

Crosslisted with: MES 393

Study of Middle Eastern political systems in terms of cleavages and crisis.

PSC 394 History of Islamic Political

Thought 3 IR

Crosslisted with: MES 394

A study of Islamic political and social attitudes pertaining to contemporary issues.

PSC 395 Democratization in the Muslim World 3 IR

Crosslisted with: MES 395

Reasons for and dynamics of democratization in some Muslim countries.

PSC 396 European Integration 3 Y

Crosslisted with: GEO 396

Focuses on the origins, nature, and likely future course of the European Union. More generally, examines five long-range challenges facing contemporary Europe: Demographic decline; globalization; Civic Integration; Great Power Rivalry; and Sustainable Development.

PSC 397 Realism and Power Politics in International Relations 3 Y

Realism lies at the core of American international relations. It has been the dominant approach to national security issues since the 1940s. The course covers several important realist theories, as well as critiques and applications.

PSC 398 How the United States Became a Great Power 3 Y

Between 1785 and 1900, the USA grew into a great power. This course investigates the foreign relations of the USA during this period. Which international relation theories best explain America's relationship with the European great powers?

PSC 399 God in Political Theory 3 IR

Crosslisted with: PHI 319, REL 371

An exploration of the key approaches to the relationship between the idea of God and religion and politics in political theory and philosophy.

PSC 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PSC 401 Government and Politics in Great Britain 3 S

Political geography, constitutional principles, governmental institutions, and political behavior in Great Britain. Comparisons with other western European political systems. Offered only in London.

PSC 402 Government and Politics in Italy 3 S

Political geography, constitutional principles, governmental institutions, and political behavior in Italy. Comparisons with other western European political systems. Offered only in Florence.

PSC 403 Government and Politics in France 3 S

Political geography, constitutional principles, governmental institutions, and political behavior in France. Comparisons with other western European political systems. Offered only in Strasbourg.

PSC 404 Government and Politics in Spain 3 S

Political geography, constitutional principles, governmental institutions, and political behavior in Spain. Comparisons with other western European political systems. Offered only in Madrid.

PSC 405 Politics of the European Union 3

Politics of European integration from a variety of perspectives: theoretical, historical, institutional, and policy-making. Fundamental post-war political process in modern-day Europe. Offered regularly through SU Abroad.

PSC 406 Citizenship from Modernity to Globalization 3

Crosslisted with: PHI 406

Offered only in Florence. Citizenship as a major crossroads in European political thought: key thinkers; permutations throughout European history; impact of globalization and European unification on concepts of citizenship, liberty, and justice.

PSC 407 Political Integration and Disintegration in Western Europe 3 IR

Crosslisted with: SOS 407

Origins of the modern territorial states of western Europe. Growth of supranational institutions, such as the European Economic Community, and their impact on European economic and political development. Offered only in Florence.

PSC 408 Comparative Social Movements 3 IR

Crosslisted with: SOS 408

Origin and policy impact of contemporary and historical European movements for social and political change. Labor movements, Eurocommunism, feminism, national socialism, fascism, and peace movements. Offered only in Florence.

PSC 409 The European Union 3 Y  
Creation and current workings of the European Union. The relationship between the member states and issues such as a United States of Europe. Mandatory trip to Brussels (EU Commission, Parliament, and U.S. EU delegation). Offered in London only.

PSC 411 Senior Seminars 3 IR  
Integrates student coursework by providing in-depth analysis of a particular topic. Recommended seminar choice is one in a subfield of the discipline in which the student has some prior preparation.

PSC 412 Global Governance: The United Nations System 3 Y  
Crosslisted with: IRP 412  
The theory and practice of global governance and international diplomacy through an in-depth study of the United Nations system. Critique readings and discuss current UN-related events. Fulfills the IR capstone for International Law and Organizations (ILO). Permission of instructor.  
PREREQ: PSC 124 OR 139.

PSC 413 Identity and Difference 3 Y  
Crosslisted with: PHI 413, WGS 413  
Interdisciplinary approach to examine concepts of identity and difference, challenges notions of subjectivity, nation and gender. Philosophical, political, and gender-related dimensions explored. Offered only in Florence.

PSC 414 European Identity Seminar 2 S  
Eleven-day interdisciplinary field studies seminar explores the multi-layered cultural and political identities in contemporary Europe, their overlapping (and at times, contradictory nature), and their effect on political and social developments. Offered in Strasbourg only. R1, 4 credits maximum

PSC 418 Comparative Public Policy in Practice 3 Y  
Crosslisted with: PAF 418  
Students gain inside knowledge of London through assignment to an organization related to a student's major and interests. Weekly lectures and seminars explore the wider social and political context in which the organizations are operating. Offered in London only.

PSC 421 Contemporary Central and Eastern Europe 3 Y  
Crosslisted with: HST 411  
Offered only in Strasbourg. This course is designed to help students grasp the overall nature of contemporary Eastern and Central Europe, with emphasis on the breakup of the Soviet Union, and challenges of democratization and of EU unification.

PSC 422 Understanding 20th Century Spain 3 S  
Crosslisted with: HST 412  
Offered only in Madrid. Course begins with War of Cuba and ends with Spain's new role in EU, NATO and UN. Particular focus on the rapid changes within Spain during this period and how these were accomplished.

PSC 424 Dictatorships, Human Rights, and Historical Memory in the Southern Cone 3 S  
Crosslisted with: HST 424, IRP 424, LAS 424  
Offered only in Santiago. The time period (1940-present) and its significance and contributions to the configuration of social, political and economic aspects of Chile today. Relies on primary sources, comparisons within the Southern Cone, and a focus on US role and influence during this period.

PSC 425 Hong Kong in the World Political Economy 3 S  
Offered only in Hong Kong. Role of Hong Kong in world political economy since creation by British after Opium Wars, to position as leading export economy and its retrocession to China in 1997.

PSC 427 Policy Seminar/Contemporary Europe 3 S  
Offered only in Strasbourg. Course gives a coherent contemporary picture of Europe in political/social/economic area and position in the world, with particular emphasis on the European Union.

PSC 428 Contemporary Issues in Chile and Latin America 3 S  
Crosslisted with: HST 406, IRP 334, LAS 334, SPA 334  
Offered only in Santiago. This seminar features in-situ lectures and activities in Chile, Argentina and Uruguay introducing important political, sociological and environmental issues in the Southern Cone region.

PSC 429 European Human Rights 3 S  
Offered only in Strasbourg. Introduction to current European human rights law. Through study of European Convention on Human Rights, students learn about culture/morals/values of peoples of Europe.

PSC 431 China in Transition 3 S  
Offered only in Beijing. Seminar examines the unprecedented, multi-faceted transitional changes occurring in China since the late 1970s. Impact of reforms on China's external relations.

PSC 432 The Pale and Beyond 3 S  
Crosslisted with: SOC 312  
Field studies seminar based in Dublin and Belfast, explores whether a shared sense of being Irish exists despite the struggle and separation between the largely Catholic south and the largely

PSC 441 Europe and International Security Issues 3 Y  
Crosslisted with: HST 441  
Offered only in Strasbourg. Historical evolution of the concept of international security within the framework of European security-related institutions and the place of Europe in the context of new security challenges.

PSC 442 Democratization in East Asia 3 Y  
Offered only in Hong Kong. Examines the efforts at democratization in East Asia, including such early efforts as the May Fourth Movement in China (1920s-1930s) and the Taisho Democracy in Japan (1920s). Comparisons are made with current situations in Taiwan, Hong Kong and South Korea.

PSC 443 Southeast Asia in the World Political Economy 3 Y  
Crosslisted with: GEO 443, INB 443, IRP 443  
Offered only in Hong Kong. Explores the historical and contemporary forces that have shaped the South East Asian region and its unique cultural, social, political and economic characteristics.

PSC 444 Culture, Business and Political Economics in East Asia 3 Y  
Crosslisted with: HST 444, INB 444, IRP 444  
Offered only in Hong Kong. Examines the historical and contemporary forces that shape the cultural, social and economic institutions in East Asia and how these institutions affect one another.

PSC 445 Contemporary British Politics and the Modern World 3 S  
Crosslisted with: HST 445  
Offered only in London. British political system and the historical factors shaping it, as well as Britain's role in creating the modern world and its place in the world today.

PSC 450 Undergraduate Research Program 1-4 S  
R

PSC 452 Italy: Past, Present and Future Challenges 3 S

Crosslisted with: HST 452

Offered only in Florence. Italian society and politics from unification to present. Topics include role of the family, emigration and immigration, stereotypes and regional identities, processes and components of Italian society and culture. Analysis of current situation and future challenges.

PSC 453 Twentieth Century Europe 3

Crosslisted with: HST 453

Politics, society, war, and peace in Europe, 1919-1992. Nazi Germany, WW II, the Cold War, post-war reconstruction, social and economic transformations, and the revolutions of 1989 in Eastern Europe. Offered only in Florence.

PSC 456 Religion and Conflicts in Contemporary Europe 3 Y

Crosslisted with: REL 356

Offered only in Strasbourg. Examines continent's long history of religious conflict, especially ways in which local and global religious tensions have developed in recent years.

PSC 458 Contemporary Issues in Turkey 3 S

Crosslisted with: IRP 458, SOC 458

Offered only in Istanbul. Key political and social issues in contemporary Turkey. Democratization; relationship between secularism, the role of the military and Islam in political life; foreign policy including Turkish-US relations; nationalism, minorities, gender, human rights. Additional work required of graduate students.

PSC 462 Globalization Development and Environment 3 Y

Crosslisted with: ECN 362

Offered only in London. Differing perspectives on changing global economy and nature of modern state. Key ideas regarding development through experiences of developing countries in Asia and Africa.

PSC 470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

PSC 471 Internships: International, National, State 3 S

Internships spent off campus in Washington, a state capitol, or an international or foreign organization. Proposal required; faculty sponsor must be arranged. May be counted toward major or minor by petition.

PSC 473 London Seminar 6 Y

British political issues and institutions combined with interviews with leaders of Parliament, the national administration, political parties, the news media, and interest groups. Five weeks in London, England, during the summer.

PSC 489 Readings in Political Science (Honors) 1-6 S

Directed tutorial-type program of readings in selected aspects of political science.

PSC 490 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

PSC 495 Distinction Thesis Seminar in Political Science I 3 Y

Individual research work in conjunction with seminar participation guided by faculty seminar instructor and individual mentors. Defining thesis projects. Senior political science students only. Permission of instructor.

PSC 496 Distinction Thesis Seminar in Political Science II 3 Y

Thesis students present ongoing research, constructively engaging with other thesis writers, and working with faculty mentor to complete research. Individual research work in conjunction with seminar participation. Senior political science students only. Permission of instructor.

PSC 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

PSC 500 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

## Psychology

PSY 205 Foundations of Human Behavior 3 S

Fundamental principles of mental life and human behavior. Significance of psychology in human relationships and self-understanding.

PSY 209 Foundations of Human Behavior/ Honors Section 3 S

Honors section of PSY 205

PSY 223 Introduction to Cognitive Neuroscience 3 Y

The science of how thought processes are instantiated in the brain. Functional neuroanatomy, cognitive neuroscience methods, and cognitive neuroscience theory in broad cognitive areas such as attention, perception, memory, language, and decision-making.

PREREQ: PSY 205 OR 209.

PSY 252 Statistical Methods II 3 S

Distributions, graphs, exploratory data analysis, and descriptive statistics, sampling and experiments Sampling distributions. Correlation and regression. Confidence intervals and significance tests for measured data and count data. Computer applications. PREREQ: STT 101 OR MAT 121 OR 221 OR (MAT 285 AND 286) OR (MAT 295 AND 296).

PSY 270 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. PREREQ: PSY 205 OR 209. R

PSY 274 Social Psychology 3 S

Introduction to scientific study of the social behavior of individuals; experimental approach. Social influence, conformity, social perception, attitude changes, small groups, and collective behavior.

PREREQ: PSY 205 OR 209.

PSY 290 Independent Study 1-6 S

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department.

PREREQ: PSY 205 OR 209. R

PSY 291 Research in Clinical/Health Psychology 1-6 S

Research including the prevention/treatment of alcohol and other substance use disorders, behavioral aspects of HIV/AIDS, religious/spiritual/psychological aspects of cardiovascular disorders, psychological aspects of tobacco addiction, and stress and coping. PREREQ: PSY 205 OR 209. R5, 6 credits maximum

PSY 292 Research in Cognitive Neuroscience Psychology 1-6 S

Research including changes in cognitive functioning, information processing, and memory associated with aging; neurobiology of learning; computational neuroscience and quantitative models of cognitive declines. PREREQ: PSY 205 OR 209. R5, 6 credits maximum

**PSY 293 Research in Developmental Educational Psychology 1-6 S**

Research including neurological and family factors related to children's health and well-being, identification/treatment of children with developmental problems, school-based interventions for children's academic and behavioral problems.

PREREQ: PSY 205 OR 209. R5, 6 credits maximum

**PSY 294 Research in Social Personality Psychology 1-6 S**

Research including psychological prejudice, social stigma, interpersonal perception, accuracy in impression formation, intergroup relations, motivational aspects of social cognition, gender, social/personality development across the lifespan, and forensic psychology.

PREREQ: PSY 205 OR PSY 209. R5, 6 credits maximum

**PSY 313 Introduction to Research Methodology 3 S**

Logic and methods of psychological research. Development of research questions, selection of appropriate methods, and interpretation of results. Statistical background not needed.

PREREQ: PSY 205 OR 209.

**PSY 315 Drugs and Human Behavior 3 S**

Effects of psychoactive drugs on human behavior. Basic pharmacology and neurobiology, history, mechanism of action, short- and long-term effects, use and abuse of various psychoactive drugs.

PREREQ: PSY 205 OR 209.

**PSY 321 Introduction to Sensation and Perception 3 O**

Common properties of sensory and perceptual systems and their physiological bases, emphasizing information processing.

PREREQ: PSY 205 OR 209.

**PSY 322 Cognitive Psychology 3 Y**

Means by which humans extract information from the environment. Feature extraction and pattern recognition, mechanisms of selective attention, and encoding and retrieval in short-term and long-term memory.

PREREQ: PSY 205 OR 209.

**PSY 323 Brain and Behavior 3 Y**

Basic functions of the brain and manner in which they relate to behavior. Methodology: brain stimulation, recording, and ablation.

PREREQ: PSY 205 OR 209.

**PSY 324 Developmental Biopsychology 3 Y**

Sequence of the biological development of humans and animals. Brain, glands, and other structures that underlie the development of behavior potential. Behavior genetics, neural and behavioral teratology, aging processes, nutritional factors, disease.

PREREQ: PSY 205 OR 209.

**PSY 329 Biopsychological Perspectives on Women's Health 3 E**

Crosslisted with: WGS 329

Psychoanalytic and evolutionary theories of gender and adaptive fitness; psychoneuroimmunological perspectives on sexually influenced disease processes, aging, and biopsychological influences on women's health.

PREREQ: PSY 205 OR 209.

**PSY 331 Laboratory in Sensation and Perception 2 O**

Techniques and experimental design for research in human sensation and perception. Develop skills in conducting experiments, designing research projects, and writing research reports.

PREREQ: (PSY 205 OR 209) AND COREQ: PSY 321.

**PSY 332 Laboratory in Cognitive Psychology 2 Y**

Experimental design and techniques for research in human memory and cognition. Students conduct class research studies.

PREREQ: (PSY 205 OR 209) AND COREQ: PSY 322.

**PSY 334 Laboratory in Developmental Biopsychology 2 Y**

Observing and quantifying changes in ethologically relevant behaviors during development. Effects of early experience on visual, olfactory, and exploratory behaviors.

PREREQ: (PSY 205 OR 209) AND COREQ: PSY 324.

**PSY 335 Psychology of Childhood 3 S**

Principles of psychological development and problems of adjustment during childhood. Intellectual, social, and emotional development.

PREREQ: PSY 205 OR 209.

**PSY 336 Psychology of the Adolescent 3 IR**

Characteristics, needs, and problems of adolescence. Principles of psychology important to those who guide and teach adolescents.

PREREQ: PSY 205 OR 209.

**PSY 337 Psychology of Adult Life:**

**Maturity and Old Age 3 IR**

Adulthood life span from developmental perspective. Cognitive, social, biopsychological, and personality development. Psychosocial forces affecting adult development and aging in contemporary American society.

PREREQ: PSY 205 OR 209.

**PSY 353 Psychological Measurement 3 IR**  
Double Numbered with: PSY 653

Principles of measurement with respect to the development and use of norm referenced and criterion referenced tests. Issues related to test bias and assessment. Permission of Instructor.

PREREQ: PSY 205 OR 209.

**PSY 365 Educational Psychology 3 IR**

Behavior in school situations. Analysis and application of principles of learning, motivation, and control of conduct.

PREREQ: PSY 205 OR 209.

**PSY 373 Human Memory 3 Y**

Scientific study of human memory. Focus on quantitative effects of episodic memory tasks. Free recall, serial recall, paired associates, recognition memory, recency and associative effects. Theoretical perspectives including Atkinson and Shiffrin model. Cognitive neuroscience of memory.

PREREQ: (PSY 205 OR 209) AND (PSY 322 OR COG 301).

**PSY 375 Cross-Cultural Psychology 3 IR**

Comparative analysis of psychological research conducted among non-Western and Euro-American peoples. Influence of cultural variables on emotional and cognitive development, perception, socialization, and group behavior.

PREREQ: PSY 205 OR 209.

**PSY 376 Human Behavior and Public Policy 3 SI**

Search for relevance in psychological research techniques, findings, and theories. Contemporary social issues to which psychology potentially contributes.

PREREQ: PSY 205 OR 209.

**PSY 379 The Social Psychology of Stigma 3 Y**

Current social psychological research on why some groups are devalued, how individuals are affected by and cope with being members of such groups, and interactions between stigmatized and non-stigmatized individuals.

PREREQ: (PSY 205 OR PSY 209) AND PSY 274.

PSY 382 Health Psychology 3 Y  
Psychological, behavioral, and social influences on health and illness. Why people stay healthy, why they become ill, and how they respond when they do get ill.  
PREREQ: PSY 205 OR 209.

PSY 383 Laboratory in Health Psychology 3 IR  
Applied study of research questions, techniques, methods, and practices in the field of health psychology.  
PREREQ: (PSY 205 OR PSY 209) AND COREQ: PSY 382.

PSY 384 Health and Behavior 3 IR  
Psychological theory and research regarding health behaviors; contrasts public health and individual models of behavior initiation, prevention, change; considers implications for living a healthy life.  
PREREQ: (PSY 205 OR 209) AND PSY 252.

PSY 392 Stress and Health 3 Y  
An integration of the psychological, social and biological factors linked to the impact of stress on health and well-being and examination of stress management methods.  
PREREQ: PSY 205 OR 209.

PSY 393 Personality 3 S  
Organization, motivation, and dynamics of human behavior.  
PREREQ: PSY 205 OR 209.

PSY 395 Abnormal Psychology 3 S  
Abnormal psychology in relation to normal psychology.  
PREREQ: PSY 205 OR 209.

PSY 398 History and Systems of Psychology 3 IR  
Developments from the 18th through mid-20th centuries, including major systems and leading figures. Designed for psychology majors who plan to apply to graduate school. Permission of instructor.  
PREREQ: PSY 205 OR 209.

PSY 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
PREREQ: PSY 205 OR 209. R

PSY 414 Social Psychology of Conflict and Cooperation 3 S  
Offered only in London. Explores conflict and cooperation through social psychological theories on interaction, group formation, attribution and attitude. Guest lecturers, site visits and independent research provide a European perspective. Introductory social psychology course strongly recommended.  
PREREQ: PSY 205 OR 209.

PSY 415 Introduction to Clinical Psychology 3 Y  
Introduction to the field of clinical psychology. Roles, theories, research methods, evaluation, intervention, ethics, cultural diversity, and areas of specialization which may include health, neuropsychology, forensic psychology, child psychology, and addictions.  
PREREQ: PSY 205 OR 209.

PSY 425 Internships in Clinical Psychology 3 Y  
Faculty supervised internship experiences in mental health, social service, and health care settings. Assessment and intervention strategies for children and adults; report writing skills; professional ethics; stigma and mental illness; overview of mental health professions. Psychology majors only.  
PREREQ: PSY 205 OR 209.

PSY 426 Cognitive Neurochemistry 3 IR  
Double Numbered with: PSY 626  
Neurochemical pharmacology and cognitive decline. Organization of neurotransmitter systems in mammalian brain, neurochemical approaches to cognitive disorders, measurement of neurotransmitters in previously frozen rat brain tissue. Additional work required of graduate students.  
PREREQ: PSY 205 OR 209.

PSY 431 Alcohol Use and Abuse 3 IR  
Double Numbered with: PSY 631  
Psychological theory and research on alcohol use and the development of abuse and dependence. Considers controversial topics related to alcohol abuse prevention, regulation, and treatment. Permission of Instructor.  
PREREQ: (PSY 205 OR 209) AND (PSY 274 OR 393).

PSY 432 Behavioral Analysis in Children 3 Y  
Principles and strategies of applied behavior analysis as an approach to skill training and behavior management with children and youth. Intended for students who plan to have responsibility for children either professionally or personally.  
PREREQ: PSY 205 OR 209.

PSY 437 Cognition and Aging 3 SI  
Research and theory on the effects of aging and individual differences on basic cognitive functions, intelligence, wisdom, and cognitive performance in everyday situations.  
PREREQ: PSY 337 AND (PSY 205 OR 209).

PSY 442 Research Methods in Child Psychology 3 IR  
Methods used in research in child and adolescent development. Training in design, conduct, analysis, interpretation, and writing of research. Ethical issues.  
PREREQ: (PSY 205 OR 209) AND PSY 335.

PSY 443 Laboratory in Child Psychology 2 IR  
Social, cognitive, and personality development. Design and implementation of research projects.  
PREREQ: (PSY 205 OR 209) AND COREQ: PSY 442.

PSY 445 Behavior Disorders in Children 3 S  
Introduction to developmental and behavioral problems of children and adolescents; review of clinical methods for assessing and treating these disorders.  
PREREQ: (PSY 205 OR 209) AND PSY 335.

PSY 446 Pediatric Psychology 3 IR  
Interdisciplinary course addressing physical, cognitive, social, and emotional functioning and development as related to health and illness issues in children, adolescents, and families.  
PREREQ: (PSY 205 OR 209) AND PSY 335.

PSY 447 Psychology of Childhood Reading Disorders 3 IR  
Psychological theory and research on childhood reading disorders. Introduction to language, visual, and neurological factors hypothesized to interfere with reading acquisition. Critique of empirical research related to prevention and intervention techniques.  
PREREQ: PSY 205 OR 209.

PSY 450 Undergraduate Research Program 1-6 R

PSY 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing.  
PREREQ: PSY 205 OR 209. R

PSY 471 Experimental Social Psychology 3 IR  
Research methods in experimental analysis of human social behavior. Training in design, conduct, analysis, interpretation, and writing of research. Ethical issues associated with this research.  
PREREQ: (PSY 205 OR 209) AND (PSY 252 AND 274).

PSY 472 Laboratory in Social Psychology 2 IR  
Laboratory studies of social behavior, involving both individual and group performance: impression formation, limitation, cooperation, decision making, and problem solving.  
PREREQ: (PSY 205 OR PSY 209) AND  
COREQ: PSY 471.

PSY 474 Forensic Psychology 3 IR  
Psychological aspects of the criminal justice system. Case examples illustrating theory and practice of forensic issues in criminal investigation and courtroom procedures.  
PREREQ: PSY 205 OR 209.

PSY 475 Social Influences on Human Sexual Behavior 3 IR  
Double Numbered with: PSY 675  
Theory and research linking social and cultural variables with the sex-related attitudes and behaviors of individuals. Importance of social learning as the major determinant of sexual motivations and variations in sexual preferences. Additional work required of graduate students. Permission of Instructor.  
PREREQ: PSY 205 OR 209.

PSY 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department.  
PREREQ: PSY 205 OR 209. R

PSY 491 Research in Clinical/Health Psychology 1-6 S  
Research including the prevention/treatment of alcohol and other substance use disorders, behavioral aspects of HIV/AIDS, religious/spiritual/psychological aspects of cardiovascular disorders, psychological aspects of tobacco addiction, and stress and coping.  
PREREQ: PSY 205 OR 209. R5, 6 credits maximum

PSY 492 Research in Cognitive Neuroscience Psychology 1-6 S  
Research including changes in cognitive functioning, information processing, and memory associated with aging; neurobiology of learning; computational neuroscience and quantitative models of cognitive declines.  
PREREQ: PSY 205 OR 209. R5, 6 credits maximum

PSY 493 Research in Developmental Educational Psychology 1-6 S  
Research including neurological and family factors related to children's health and well-being, identification/treatment of children with developmental problems, school-based interventions for children's academic and behavioral problems.  
PREREQ: PSY 205 OR 209. R5, 6 credits maximum

PSY 494 Research in Social Personality Psychology 1-6 S  
Research including psychological prejudice, social stigma, interpersonal perception, accuracy in impression formation, intergroup relations, motivational aspects of social cognition, gender, social/personality development across the lifespan, and forensic psychology.  
PREREQ: PSY 205 OR 209. R5, 6 credits maximum

PSY 496 Neuroscience and Society 3 Y  
Crosslisted with: BIO 496  
Capstone course offered by the College of Arts & Sciences for the Integrated Neuroscience major. Learn how to translate your knowledge in neuroscience from laboratory bench to neurological patients' bedside and help problems in society. Permission of instructor.  
PREREQ: PSY 205 OR 209.

PSY 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member.  
PREREQ: PSY 205 OR 209. R2, 3 credits maximum

### Queer Sexuality

QSX 111 Queer Histories, Communities, and Politics 3  
Explores and analyzes lesbian, gay, bisexual, and transgender histories, communities, and politics from the ancient past to the contemporary, global present through an interdisciplinary reading of research, theory, memoir, biography, fiction, and documentary film.

QSX 112 Sexualities, Genders, Bodies 3  
Explores how lesbian, gay, bisexual, and transgender sexualities, genders, and embodiment are understood across communities and through time, with an interdisciplinary analysis of literature, film, mass media, web sites, research, and theory.

QSX 300 Selected Topics 1-6  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

QSX 306 Sexuality in Spain 3 S  
Crosslisted with: SOC 306, WGS 306  
Offered only in Madrid. Explores important transformations in Spaniards' concepts of sexuality and gender through readings, film screenings and observing certain urban areas in Madrid.

QSX 348 Queering the Middle Ages? 3 E  
Crosslisted with: HST 348  
This course introduces students to the models and methods developed in the field of queer theory and applies them to a wide range of medieval texts (letters, novels, monastic rules, medieval historiography, legal texts etc.).

QSX 357 Queerly Religious 3 O  
Crosslisted with: REL 357  
Intersections and interactions of religions and sexualities in historical and contemporary contexts. Materials entwine case studies and queer theories. Particular attention given to religious and sexual desires, identities, and enactments.

QSX 362 Nazi Germany and the Holocaust 3-4 Y  
Crosslisted with: HST 362, JSP 362  
Rise of Nazism, fall of the Weimar Republic, fascist ideology, everyday life under Nazism for "Aryans," Jews, disabled people, Roma, gay people, Afro-Germans, others. Planning for genocide, the Holocaust, reactions and memories after 1945.

QSX 384 Sexuality and the Law 3 E  
Crosslisted with: PSC 384  
Examines politically significant legal debates regarding gender and sexuality. Issues covered may include privacy rights, discrimination on the basis of sexual orientation and gender identity, family law and parental rights, and same-sex marriage.

QSX 389 LGBT History 3 IR  
Crosslisted with: HST 389, WGS 389  
The history of lesbian, gay, bisexual, transgender experience in period and region (North America, Europe, or Global) of instructor's expertise, with attention to the international context..

QSX 400 Selected Topics: Queer Sexuality 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

QSX 437 LGBTQ Health and Well Being 3 SI

Crosslisted with: HTW 437, SWK 437

Application of concepts from an ecological framework to understand the micro, mezzo, macro, and social forces that impact the health and well-being of lesbian, gay, bisexual, transgender and queer populations.

QSX 438 Trans Genders and Sexualities 3

Crosslisted with: WGS 438

How people actually live sex, gender, and sexuality in infinitely complex and interdependent ways that defy categorizing people as "male" or "female," "man" or "woman," "gay" or "straight" within the prevailing binary system of identities.

QSX 447 Sexualities and Genders in World Teen Culture 3

Crosslisted with: WGS 447

How teenagers in both U.S. and non-U.S. cultures are transforming their genders and sexual identities in response to the women's and lesbian/gay/bisexual/transgender liberation movements.

QSX 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies 3 Y

Crosslisted with: MES 453, WGS 453

This course maps women's rights movements, LGBTQ mobilizations, and minority activism in the Middle East. It focuses on the centrality of gender and sexuality to the politics of every day life.

QSX 456 LGBT Studies in Sociology 3 IR

Crosslisted with: SOC 456, WGS 456

Recent sociological research in lesbian, gay, bisexual, and transgender studies addressing sexuality, identity, community, representation, politics, social change and their inter-relations.

## Religion

REL 100 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

REL 101 Religions of the World 3 Y

The nature and significance of religion within human culture and existence as evidenced in various religions of the world both past and present.

REL 102 Religion Today in a Globalizing World 3 E

Consideration of the globalization of religions and the rise of worldwide trends: spirituality, fundamentalism, new religious movements, and major changes in established religions.

REL 103 Religion and Sports 3 Y

The religious/ceremonial origins of sports; importance of sports in human culture; issues of identity, gender, race, ethnicity as defined by sports. Special emphasis on lacrosse.

REL 104 Religion and Science 3 E

Historical and conceptual overview of the relations of religions and science in Christian and Islamic cultures. Engagement with current high profile debates, e.g. evolution and stem cell research.

REL 106 What Is Belief? 3 E

Interdisciplinary exploration of belief as religious and cultural phenomena. Readings from historical, philosophical, religious, scientific, and literary sources.

REL 107 Religion, Literature, Film 3 IR

Crosslisted with: JSP 107

Literary and cinematic approaches to religious life, focusing on Jewish and Christian communities. Special attention to the Bible, Yiddish culture, post-Holocaust writing, and Israel; topics include land, tradition, humor, science, and violence.

REL 114 The Bible 3 Y

Crosslisted with: JSP 114

Jewish and Christian scriptures in their ancient Near Eastern and Hellenistic contexts, with particular attention to their literary forms, the history of their composition, and their role in the development of Western religions and cultures. Credit is not given for REL/JSP 114 and either REL/JSP 215 or REL 217.

REL 120 Introduction to the Study of Religion 3 IR

Introduces students to the academic study of religion as a complex field given shape through a diversity of academic disciplines and questions. Terms, concepts, and ideas will be discussed.

REL 121 Pilgrimage 3 O

A cross-cultural exploration of religious journeys, including pilgrim's travels through different landscapes as well as spiritual quests. Buddhist, Christian, Hindu, Muslim and indigenous traditions are regularly included.

REL 123 Religious Auto/Biography 3 IR  
Crosslisted with: SAS 123

A cross-cultural exploration of religious autobiographies. Understanding multiple dimensions of religious life through narratives of the self, the sacred, and society.

REL 125 Religion and Sexuality 3 O

Roles and significances of sexuality in religious traditions. Mutual influences of religions and sexualities. Case studies from multiple traditions and locations. Attention to intersections of religious and sexual identities and practices.

REL 126 Ecstasy, Transgression, Religion 3 SI

An exploration of ecstasy and transgression as limit-cases for religion. Topics may include mysticism, madness, eroticism, passion, and sacrifice.

REL 131 Great Jewish Writers 3 IR

Crosslisted with: JSP 131, LIT 131

Introduction to fiction by Jewish authors. Topics include modernization, rebellion against authority, alienation, childhood, superstition, and the holocaust. Some films included.

REL 135 Judaism 3 Y

Crosslisted with: JSP 135

Survey of Judaic ideas, values, and cultural expressions as found in biblical, talmudic, medieval, mystical, and modern texts.

REL 142 Native American Religion 3 Y

Crosslisted with: NAT 142

Religious beliefs and practices of native Americans; the diversity as well as similarity of religious expression.

REL 156 Christianity 3 Y

Christianity's institutional forms, sacred writings, ideas and beliefs, worship practices, cultural and creative expressions, ethical and political roles in society, from antiquity to the present. How Christianity addresses human needs, concerns, and desires.

REL 165 Discovering Islam 3 Y

Crosslisted with: MES 165, SAS 165

Islam as a faith and a civilization. Understanding its origins, beliefs, rituals, and the historical development of its intellectual traditions in the pre-modern and modern eras, and its geographic, cultural and theological diversity today.

REL 185 Hinduism 3 Y

Crosslisted with: SAS 185

Religious life of contemporary Hindus in India: gods, goddesses, and other divines; worship; sectarian movements; and rituals in the home, at temples, and at other holy sites.

REL 186 Buddhism 3 Y

Crosslisted with: SAS 186

Buddhism as a world religion: its origin in India, its spread to other parts of Asia, and consequent changes in doctrine and practice through the ages.

REL 191 Religion, Meaning and Knowledge 3 Y

Exploration of the age-old quest for meaning, knowledge and faith in the face of suffering and loss through art, philosophy, music and literature.

REL 200 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

REL 205 Ancient Greek Religion 3 Y

Historical and systematic studies of Greek myth and cult (pre-Homeric Chthonic religion through Olympian polytheism to the decline of the polis). Interaction of religion with drama, art, architecture, philosophy, and politics.

REL 206 Greco-Roman Religion 3 IR

Various aspects of religious thought and experience in the Greco-Roman world. Variety of ways in which Greco-Roman people expressed the human situation, constructed their world, and viewed salvation through myth, symbol, and ritual.

REL 215 The Hebrew Bible 3 IR

Crosslisted with: JSP 215

The Hebrew Bible (often called Old Testament) in English translation, with particular attention to its literary form, its cultural context in the ancient Near East, the history of its development, and its role in Western religions and cultures. Credit is not given for REL/JSP 114 and either REL/JSP 215 or REL 217.

REL 217 The New Testament 3 IR

Historical, literary, theological, and cultural dimensions of selected documents comprising the New Testament. Credit is not given for REL/JSP 114 and either REL/JSP 215 or REL 217.

REL 221 Morality and Community 3 O

Crosslisted with: ANT 221

Examines how globally diverse religious groups create distinct moral systems in order to provide their members with the feeling of belonging to unique and meaningful communities.

REL 223 Faith, Doubt, and Fanaticism 3 Y

Contemporary, existential introduction to academic study of religion through critical consideration of religious and secular extremisms.

REL 227 Gods: A Cross-Cultural Gallery 3 O

Study of Gods in a cross-cultural context accenting forms of Gods perceived and experienced in embodied, visible, concrete form rather than as "transcendent" or "spirit."

REL 231 Judaic Literature 3 Y

Crosslisted with: JSP 231, LIT 231

Survey of major works in the Judaic tradition, including Hebrew and Yiddish prose in translation. Themes include nature, culture, exile, humor, satire, and talking takhlis.

REL 235 Travel Narratives and Pilgrimages 3 Y

Crosslisted with: JSP 235, LIT 235

Study of secular and spiritual travel narratives, both factual and fictional. Included are tales of exploration, shipwreck, and pilgrimage to the Holy Land, which played a key role in literary history.

REL 241 Religious Diversity in America 3 Y

Emergence of United States as unique, multi-faith society, with focus on Christianity, Judaism, Islam, Buddhism, Hinduism, and other faiths.

REL 242 Religious Issues in American Life 3

How contemporary religious ideas, individuals, and organizations intersect with major political and cultural issues in the United States.

REL 244 Indigenous Religions 3 E

Crosslisted with: ANT 273, NAT 244

The connections between material life and religious life in cultures throughout the world. The diverse ways that various cultures inhabit their landscapes.

REL 246 Religion and Popular Culture 3 IR

Popular expressions of religion in and through cemeteries, holidays, music, film, media and sports.

REL 252 Religious Ethics and Social Issues 3 IR

Traditional and contemporary thought in the West. Issues in medical, business, and political ethics.

REL 255 Depth Psychology and Religious Ethics 3 Y

Theories of human nature and their implications for religion and ethics. Includes narcissism, religious experience, moral conscience, mutuality, and the commandment to love thy neighbor as thyself.

REL 261 Faith and Reason in Islamic Thought and Civilization 3 Y

Understanding the key themes and historical development of the Islamic intellectual tradition by examining the tension between dogmatic faith and rational interpretation in Islamic theology, law, philosophy and mysticism.

REL 281 African Religions: An Introduction 3 O

Crosslisted with: AAS 241

Historical and comparative study of religious practice in Africa. Diversity of traditional beliefs, developments in Christianity and Islam, and political significance of religious identity and practice. African influence on western religious practices.

REL 283 India's Religious Worlds 3 O

Crosslisted with: SAS 283

Inter-secting religious worlds of Hindus, Muslims, Sikhs, Jains, and Christians in modern India; focus on cosmology and morality in interaction with ritual practices, religious narratives, social life, media, and politics.

REL 290 Independent Study 1-6 SI

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

REL 291 Comparative Themes and Issues 3 IR

Special introductory thematic studies of religion, or of the study of religion. Themes and issues addressed may vary, but will generally feature the nature of religion itself, or the discipline of religious studies.

REL 294 Mythologies 3 IR

Mythologies of the world, ancient and modern, Eastern and Western, Northern and Southern. Issues of nature and function, historical development and diffusion of myth.

REL 295 Religion And Art 3 IR

Relationship between art, religion, and religious thought. May draw on classical religious sources, art history, literature, theology, or philosophy. Emphasis placed on Western religious/artistic traditions (Judaism, Christianity).

- REL 300 Selected Topics 1-3 S  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R
- REL 301 Ancient Near Eastern Religions and Cultures 3 IR  
The social contexts of ancient religious ideas and practices. Texts, art, and other artifacts from ancient Mesopotamia, Egypt, Syria, Palestine, and Israel.
- REL 307 The Temple and the Dead Sea Scrolls 3 IR  
Crosslisted with: JSP 307  
History and literature of Second Temple Judaism including the canonization of scripture, origins of the synagogue, apocalyptic literature, the Dead Sea Scrolls, and other developments leading to early Christianity and rabbinic Judaism.
- REL 308 Ancient Judaism and the Origins of Christianity 3 S  
Crosslisted with: JSP 308, MES 308  
Offered only in Madrid. Social, cultural, intellectual, and historical conditions which surrounded the birth of this new world religion in its ancient Mediterranean cradle--from Mesopotamia and Egypt to Greece and ancient Rome.
- REL 309 Early Christianities 3 IR  
The emergence of Christianity as a distinct religion within the Roman empire; the diversity of early Christian beliefs and practices.
- REL 310 Medieval Christianities 3 S  
Diverse ways of experiencing medieval European Christian beliefs and practices. Particular attention given to monks, mendicants, and mystics and to topics including humanity and divinity, love and knowledge.
- REL 311 The Bible as Literature 3 IR  
Crosslisted with: JSP 311  
A study of one literary genre (such as prose narrative, didactic poetry, or hymnody) through the books of the Hebrew Bible in comparison to other ancient literatures.
- REL 320 Religion and Culture 3 S  
Religion as an expression of culture and also as a force that contributes to the formation of culture. Approaches and topics vary. R2, 9 credits maximum
- REL 321 Christians, Jews and Muslims 3 S  
Crosslisted with: HUM 321, JSP 321, MES 321  
Offered only in Madrid. Key historic encounters between the three versions of monotheism, with reference to the richness of past cultural and religious legacy rooted in the Mediterranean region.
- REL 324 Religions and Storytelling 3 IR  
Religious teachings in narrative form. Traditions include Hindu, Muslim, Jewish, Christian, African, and Native American religions. Topics include saints, miracles, gender, nature, identity, resistance, empowerment.
- REL 326 Religion and Film 3 IR  
Readings in religion and film theory to examine how film-makers employ, construct, and presume particular understandings of the religious. Film viewing outside regular classroom time.
- REL 331 European and American Judaic Literature 3 Y  
Crosslisted with: JSP 331  
Readings of 20th-century fiction and drama, focusing on works by Schnitzler, Kafka, Wiesel, P. Levi, Yeziarska, H. Roth, I.B. Singer, Malamud, P. Roth, and Ozick.
- REL 332 Jewish Textual Tradition 3 Y  
Crosslisted with: JSP 332  
Students explore the Jewish textual tradition. Topics vary from year to year. Texts include Talmud, midrash, medieval philosophy and mysticism. Course can be repeated for credit. R2, 9 credits maximum
- REL 333 Yiddish Literature in Translation 3 Y  
Crosslisted with: JSP 333, LIT 333  
Survey of Yiddish literature, with special attention to the classic Yiddish authors, Yiddish theater, modernism, and Yiddish women writers. Themes of minority culture, class struggle, hasidism, and the decline of the Shtetl.
- REL 334 Modern Judaism 3 IR  
Crosslisted with: JSP 334  
The impact of modernity on Jewish life and thought. Issues and themes vary.
- REL 335 Israeli Literature and Culture 3 Y  
Crosslisted with: JSP 335, LIT 335  
Literary and cultural approach to the modern history of Israel, with special attention to conflicts that have arisen during the Zionist project.
- REL 337 Shoah: Responding to the Holocaust 3 IR  
Crosslisted with: JSP 337  
Historical, literary, and philosophical representations of, and responses to, the Nazi genocide. Philosophical, theological, and ethical challenges raised by the Holocaust.
- REL 338 American Judaism 3 IR  
Crosslisted with: JSP 338  
Students explore the relation between culture and religion across a diverse range of American Jews and Jewish communities. Particular attention is paid to the process of acculturation and assimilation and to the reinvention of Judaism.
- REL 341 Women, Abolition, and Religion in 19th Century America 3 IR  
Crosslisted with: HST 387, WGS 341  
The role that religion may have played in women's understandings of themselves as abolitionists and social reformers. A selected group of women will be studied, with considerable attention given to Frances Harper.
- REL 342 Religion and Politics in the Israeli-Palestinian Conflict 3 IR  
Crosslisted with: JSP 342, MES 342, PSC 342  
Considers the extent to which religion matters in an enduring ethno-nationalist conflict. Approaches the Israeli-Palestinian conflict from an interdisciplinary perspective that explores the intersection of religion and politics.
- REL 343 American Religions and the News Media 3 Y  
Examines spiritual complexity of the U.S.; explores relationship between media and organized religion.
- REL 345 African American Religious History 3 Y  
Crosslisted with: AAS 345  
Historical significance of religion for Americans of African descent. African and western forces shaping religious identity. Religious practices, beliefs, organizations, imagery, literature, theories, and activism. Historical perspectives on meanings of religion.
- REL 347 Religion and the Conquest of America 3 IR  
Crosslisted with: NAT 347  
The development of America through the contact between indigenous and colonial people's divergent religious understandings of land.

REL 348 Religion and American Consumerism 3 IR

Crosslisted with: NAT 348

Interrogates the relationship of American religious and economic practices, as compared with Native American traditions, during the 19th and 20th centuries.

REL 351 Theorizing Religion, Culture, Theology 3 IR

Contemporary and theoretical understandings of the meanings of religious, cultural, and theological discourse.

REL 352 Sociology of Religion and Morals 3 IR

Sociological interpretations of religion and morality. Classical writings of Emile Durkheim and Max Weber and contemporary sociologists. The sacred, ritual, community, secularization, social change, and justice.

REL 353 Religion and Nature 3 IR

American nature writing is examined for its religious structure, terminology, and effects.

REL 354 Kierkegaard and Nietzsche 3 Y

Crosslisted with: PHI 354

This course focuses on the similarities and differences of Kierkegaard's and Nietzsche's views on selfhood, society, and religion.

REL 355 Religion, Identity and Power 3 Y

Crosslisted with: PSC 362, SOC 362

Examines ascendancy of religious movements; prominence of religious ideas; secularization and religion as a political force; conceptual and historical issues in relation to religious ideas and movements, including various Islamic revivals and the Christian right. Offered in London and Madrid only.

REL 356 Religion and Conflicts in Contemporary Europe 3 S

Crosslisted with: PSC 456

Offered only in Strasbourg. Examines continent's long history of religious conflict, especially ways in which local and global religious tensions have developed in recent years.

REL 357 Queerly Religious 3 O

Crosslisted with: QSX 357

Intersections and interactions of religions and sexualities in historical and contemporary contexts. Materials entwine case studies and queer theories. Particular attention given to religious and sexual desires, identities, and enactments.

REL 358 Critical Issues in Religious Thought 3 O

Introduction to religious thought through a philosophical inquiry into theological problems in both Western and Eastern religions. Epistemological, metaphysical, and axiological issues.

REL 359 Stem Cells and Society 3 IR

Crosslisted with: BIO 396, PHI 396

The science of stem cells and the philosophical, religious and legal complexities surrounding the research and use of stem cell technologies.

REL 364 Enchanting Words: Muslim

Poets, Singers and Storytellers 3 Y

Crosslisted with: MES 364, SAS 364

Understand the power of words and language in Muslim cultures expressed in oral and literary genres including poetry, humor, fables, folksongs and travel journals. Explore key themes such as virtue, reality, divine and human nature.

REL 367 God and Beauty in Islamic Art 3 Y

Crosslisted with: MES 365, SAS 367

Expressions of beauty, creativity and faith in Islamic calligraphy, ceramics, textiles, architecture, miniatures and music. Unity and diversity of the visual and performing arts of Muslims in different periods, cultures and regions.

REL 371 God in Political Theory 3 IR

Crosslisted with: PHI 319, PSC 399

An exploration of the key approaches to the relationship between the idea of God and religion and politics in political theory and philosophy.

REL 375 Religion and Ethics in Post-

Freudian Depth Psychologies 3 IR

Psychoanalytic theories after Freud and their contributions to understanding religious phenomena and the moral life.

REL 384 Goddesses, Women and Power in Hinduism 3 O

Crosslisted with: SAS 384, WGS 384

Interrelationship of power as female and female power in Hindu cosmology, mythology, and society. Complexities of mythic, domestic, and economic gender hierarchies.

REL 385 Religion in Chinese Society 3 E

Surveys the diversity of religious practice in mainland China and Taiwan focusing on the lived experiences of ordinary adherents both within institutionalized religions and through localized folk beliefs and practices.

REL 386 Studies in Buddhism 3 IR

Selected topics in the thought and practice of Buddhism.

REL 387 Religious Belief Systems in Everyday Asian Life 3 S

Offered only in Hong Kong. Examines world views, value systems, and theories of major Asian religions and belief systems and their contributions to the formation of Asian culture.

REL 391 Advanced Religion Seminar 3 Y

Content may vary, attention always given to diversity of theories and methods in study of religion. Required of all religion majors. Open to others by special permission. Junior or Senior status.

REL 392 Music and the Sacred 3 O

Crosslisted with: HOM 492

Intersection of music and the sacred in a variety of cultural traditions and historical periods.

REL 393 Extreme Religion 3 SI

Exploration of religious experiences at human limits and of religion as a limit discourse. Limits explored include rationality, language, sexuality, humanity, and mortality.

REL 395 Religions and the Natural Environment 3 E

Interpretations of the natural environment in the mythologies, rituals, and practices of religious traditions, including religious responses to current ecological crises.

REL 396 Mysticism 3 IR

Diverse manifestations of mysticism; historical case studies from various religious traditions. Insights of theologians and depth psychologists.

REL 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

REL 409 A History of Witchcraft 3

Crosslisted with: ANT 409, HST 409, WGS 409

History of witchcraft from various perspectives: its intellectual roots, the causes and dynamics of the witch-hunt, and the beliefs and self-perceptions of those who were called "witches". Offered only in Florence.

REL 416 The Torah/Pentateuch as a Scripture 3 Y

Crosslisted with: JSP 416; Double Numbered with: REL 616

How the Pentateuch became the Torah, the first Jewish scripture: its origins, rhetorical use, performance in various media, and ritual function as an iconic book. Additional work required of graduate students.

REL 421 Classical Mythology 3

Crosslisted with: CLA 421, LIT 421

Myths and rituals of Greek mythology and religion. Ancient poets/playwrights and important mythological themes found in later Western religious/artistic traditions. Offered only in Florence.

REL 435 Modern Judaic Thought 3 O

Crosslisted with: JSP 435, PHI 435

The philosophical implications of Judaism's encounter with modernity. Close readings of selected modern Jewish thinkers. Issues and figures vary. R3, 9 credits maximum

REL 439 Senior Seminar in Judaic Studies 3 Y

Crosslisted with: JSP 439

Interdisciplinary study of special topics in the Judaic tradition. R2, 9 credits maximum

REL 440 Modern Religious Thought 3 Y

Examines conceptions of human being in modern religious thought in Europe and America. Themes may include God and the self; God, art, and delight; and religion and despair. Figures examined may include Kierkegaard, Douglass, Dostoevsky, Dinesen, and Baldwin. R1, 6 credits maximum

REL 449 Religious Dimensions of Whiteness 3 IR

Examines the creation and use of "whiteness" as a religious dimension in the formation of American identity.

REL 451 Visual Culture Past and Present: Gender, Religion and Politics 3 S

Crosslisted with: CRS 451, HST 451, WGS 451 Offered only in Florence. Contemporary visual culture; its representation of gender, religion, and politics and the origins of that representation in a pictorial language first codified in Italy and Europe between circa 1450 and 1650.

REL 465 Beyond the Veil: Gender Politics in Islam 3 Y

Crosslisted with: MES 465, SAS 465, WGS 465; Double Numbered with: REL 626

Politics of gender, religious identities, and resistance in the Islamic world. Gender scripts in Qur'anic scripture and Shariah laws. Contemporary realities of Muslim women living in different parts of the world. Additional work required of graduate students.

REL 470 Experience Credit 1-6 SI

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

REL 471 Religion and Society in Brazil 3-4

Crosslisted with: ANT 471

Role of religion in society; religions of Brazil, including Catholicism, liberation theology, afro-religions. Spring break field stay in Rio de Janeiro; methods of study; preparation of research proposal.

REL 487 Global Hinduism 3 E

Double Numbered with: REL 687

Exploring how mobile middle-class Hindus re-create and re-define religion in new urban and global environments as a context for rethinking the place of religion(s) within rapid world-wide urbanization, migration, globalization, and increasing cultural (dis)integration. Additional work required of graduate students.

REL 490 Independent Study 1-6 SI

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

REL 498 Thesis Preparation 3 Y

Departmental distinction for majors who demonstrate exceptional achievement in the study of religion.

REL 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

REL 500 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

REL 551 Ethics and the Health professions 3 Y

Crosslisted with: PHI 593

Ethical theories in professional, organizational, and political-economic fields in health care. Specific issues: assisted suicide, professional codes, ethics of "cost-cutting" and justice with respect to care.

REL 552 Bioethics 3 Y

Crosslisted with: PHI 594

Use of ethical theory in thinking about case problems in health care. Moral dilemmas: use of reproductive technologies, abortion, surrogate motherhood, research with humans, refusal and withdrawal of treatment, physician-assisted suicide.

REL 557 Modern Theology 3 E

Introduction to major figures and movements in twentieth-century theology. Upper division standing.

REL 595 Religion, Art, and Aesthetics 3 IR

Intersection between religion, art, and philosophy. Sources culled from Western religious thought and philosophy.

## Russian

RUS 101 Russian I 4 Y

Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Russian. No prior experience or admission by placement testing. Students cannot enroll in RUS 101 after successfully completing RUS102, RUS 201, or RUS 202 or higher. PREREQ: REQUIRED PLACEMENT EXAM SCORE.

RUS 102 Russian II 4 S

Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, in culturally authentic contexts. Activities are conducted in Russian. Students cannot enroll in RUS 102 after successfully completing RUS 201, RUS 202 or higher. PREREQ: RUS 101.

RUS 201 Russian III 4 Y

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Russian. Students cannot enroll in RUS 201 after successfully completing RUS 202 or higher. PREREQ: RUS 102.

**RUS202 Russian IV 4 Y**

Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Russian. Students cannot enroll in RUS 202 after successfully completing a course higher than RUS 202.  
PREREQ: RUS 201.

**RUS 301 Reading and Composition 3 Y**

Reading, comprehension, oral and written composition, structure, and usage at the advanced intermediate level.

**RUS 302 Reading and Composition 3 Y**

Reading, comprehension, oral and written composition, structure, and usage at the advanced intermediate level.

**RUS 320 Contemporary Russian Media 3 IR**

Using contemporary newspapers, journals, web sites, news broadcasts, and video segments, this course will teach the development of fundamental reading/translation and aural/oral skills.

PREREQ: RUS 202. R

**RUS 331 Russian Culture Through Fiction and Film 3 IR**

Crosslisted with: LIT 331

Documentary films and readings of short fiction. Elements of Russian culture and provides an understanding of Russian national identity as it has developed from Kievan Russian to the present day.

PREREQ: RUS 202.

**RUS 332 Russian Fairy Tales and Folklore 3 IR**

Crosslisted with: LIT 332

The history and development of fairy tales in Russia. Begins with oral tales, influenced by early folklore and pagan rituals, and progresses through literary fairy tales and film versions.

PREREQ: RUS 201.

**RUS 351 Introduction to Russian Literature 3 IR**

Masterpieces of Russian literature. Conducted in Russian.

**RUS 352 Introduction to Russian Literature 3 IR**

Masterpieces of Russian literature. Conducted in Russian.

**RUS 361 Russian Literary Film Adaptations 3 IR**

Crosslisted with: LIT 361

Study of film adaptations of Russian literary classics.

PREREQ: RUS 202.

**RUS 362 Russia Today 3 IR**

Crosslisted with: LIT 362

Using scholarly texts, newspapers, blogs, digital audio, film, recent literature, and web videos, we will investigate topics that define contemporary Russia and make it seem familiar yet different to us in the West.

PREREQ: RUS 201.

**RUS 405 Advanced Structure and Usage 3 Y**

Practice in idiomatic usage, analysis of syntax, phonology, morphology. Required of Russian majors.

PREREQ: RUS 301 AND 302.

**RUS 412 Political Russian 3 IR**

Expand vocabulary and grammatical skills to permit the student to carry on more complex conversation in authentic situations, express opinion, argue and hypothesize. Acquire essential knowledge of contemporary Russian society, history and culture.

PREREQ: RUS 302.

**RUS 422 Business Russian 3 IR**

Learn common business vocabulary, practice conversation and conduct research on business related topics. Further develop the basic skills and knowledge of Russian business language and culture introduced earlier in different courses.

PREREQ: RUS 302.

**RUS 490 Independent Study 1-6 S**

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

**RUS 499 Honors Capstone Project 1-3 SI**

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

**South Asian Studies**

**SAS 101 Hindi/Urdu I 4 Y**

Crosslisted with: HIN 101

Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts.

Activities are conducted in Hindi/Urdu.

Students cannot enroll in HIN101 after successfully completing HIN 102, HIN 201, or HIN 202 or higher.

**SAS 102 Hindi/Urdu II 4 Y**

Crosslisted with: HIN 102

Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Hindi/Urdu. Students cannot enroll in ARB 102 after successfully completing HIN 201, HIN 202 or higher.

PREREQ: HIN 101.

**SAS 123 Religious Auto/Biography 3 IR**

Crosslisted with: REL 123

A cross-cultural exploration of religious autobiographies. Understanding multiple dimensions of religious life through narratives of the self, the sacred, and society.

**SAS 165 Discovering Islam 3 Y**

Crosslisted with: MES 165, REL 165

Islam as a faith and a civilization. Understanding its origins, beliefs, rituals, and the historical development of its intellectual traditions in the pre-modern and modern eras, and its geographic, cultural and theological diversity today.

**SAS 185 Hinduism 3 Y**

Crosslisted with: REL 185

Religious life of contemporary Hindus in India: gods, goddesses, and other divines; worship; sectarian movements; and rituals in the home, at temples, and at other holy sites.

**SAS 186 Buddhism 3 Y**

Crosslisted with: REL 186

Buddhism as a world religion: its origin in India, its spread to other parts of Asia, and consequent changes in doctrine and practice through the ages.

**SAS 201 Hindi/Urdu III 4 Y**

Crosslisted with: HIN 201

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Hindi/Urdu. Students cannot enroll in HIN 201 after successfully completing HIN 202 or higher

PREREQ: HIN 102.

**SAS 202 Hindi/Urdu IV 4 Y**

Crosslisted with: HIN 202

Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Hindi/Urdu. Students cannot enroll in HIN 202 after successfully completing a course higher than HIN 202.

PREREQ: HIN 201.

SAS 283 India's Religious Worlds 3 O

Crosslisted with: REL 283

Inter-secting religious worlds of Hindus, Muslims, Sikhs, Jains, and Christians in modern India; focus on cosmology and morality in interaction with ritual practices, religious narratives, social life, media, and politics.

SAS 301 Contemporary Asian Americans 3 Y

Crosslisted with: SOC 301

An overview of the Asian American experience.

SAS 324 Modern South Asian Cultures 3 O

Crosslisted with: ANT 324, WGS 324

Societies of India, Pakistan, Bangladesh, and Sri Lanka. Social organization, economic and political structures, religions and world view, survey of languages, the arts. Transition and modernization, rural and urban problems.

SAS 328 Ancient and Medieval India 3 Y

Crosslisted with: HST 328

Formation of traditional Indian kinship, religion, philosophy, and culture. Vedic society and the rise of Buddhism. Medieval Hindu kingdoms. Expansion and the legacy of Islam. Rise and disintegration of the Mughal empire.

SAS 329 Making of Modern India 3 Y

Crosslisted with: HST 329

British colonial expansion in India. Emergence of nationalism and related movements of religious, social, and cultural reform. Gandhi and non-violence. Struggle for independence and the politics of gender, class, caste, and religious community.

SAS 364 Enchanting Words: Muslim

Poets, Singers and Storytellers 3 Y

Crosslisted with: MES 364, REL 364

Understand the power of words and language in Muslim cultures expressed in oral and literary genres including poetry, humor, fables, folksongs and travel journals. Explore key themes such as virtue, reality, divine and human nature.

SAS 367 God and Beauty in Islamic Art 3 Y

Crosslisted with: MES 365, REL 367

Expressions of beauty, creativity and faith in Islamic calligraphy, ceramics, textiles, architecture, miniatures and music. Unity and diversity of the visual and performing arts of Muslims in different periods, cultures and regions.

SAS 375 British Empire 3 Y

Crosslisted with: HST 375

Seminar on expansion of the British Empire (emphasis on India and Africa) in the 18th and 19th centuries. Explores histories of conquest, administration and imperial policy, and the ideologies of imperialism and colonialism.

SAS 384 Goddesses, Women and Power in Hinduism 3 O

Crosslisted with: REL 384, WGS 384

Interrelationship of power as female and female power in Hindu cosmology, mythology, and society. Complexities of mythic, domestic, and economic gender hierarchies.

SAS 385 Music and Dance of India 3 O

Crosslisted with: HOM 384

Selected music and dance traditions of India in their cultural, historical, and performative contexts, representing classical, devotional, folk, tribal, and popular arts. Performance as a window into Indian culture, society, and modernization.

SAS 386 Sounds of the Silk Road 3 IR

Crosslisted with: HOM 386, MES 386

The soundscapes of the overland Silk Road as a window into history, commerce, migration, social life, values, faith, tolerance and conflict. Case studies from Turkish, Arabic, Persian, Central Asia, and Southwest Asia musics.

SAS 389 Politics of India 3 Y

Crosslisted with: PSC 389

Introduction to politics in post-independence India. Surveys India's party system, institutional structures, political practices and socio-economic policies. Examines the reasons for India's democratic stability despite high levels of illiteracy, poverty and ethnic heterogeneity.

SAS 394 Partition of India in Film 3 Y

Crosslisted with: HST 394

Explores the partition of India in 1947 through South Asian films.

SAS 396 Art and Architecture of India 3 Y

Crosslisted with: ARC 331, HOA 396

Art and architecture of the Indian subcontinent from the Indus Valley Civilization to the present.

SAS 400 Selected Topics: South Asian Studies 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SAS 421 Gender & Sexuality in South Asia 3 O

Crosslisted with: ANT 421; Double Numbered with: SAS 622

Seminar examines gender and sexuality in South Asia through ethnographies and films. Topics explored relating to gender and sexuality include: colonialism; nationalism; development; globalization; kinship; the life cycle; caste and class; religion; same-sex/"third sex" identities. Additional work required of graduate students.

SAS 426 Cultures and Politics of

Afghanistan and Pakistan 3 E

Crosslisted with: ANT 426, IRP 426; Double Numbered with: SAS 626

Introduction to Afghanistan and Pakistan, recent histories, cultures, current politics. Covers geography, religious systems, gender roles, economic systems, foreign policy issues, refugees, migration. Additional work required of graduate students.

SAS 465 Beyond the Veil: Gender Politics in Islam 3 Y

Crosslisted with: MES 465, REL 465, WGS 465

Politics of gender, religious identities, and resistance in the Islamic world. Gender scripts in Qur'anic scripture and Shariah laws. Contemporary realities of Muslim women living in different parts of the world. Additional work required of graduate students.

## Science Teaching

SCI 104 Science-Questions and Quests: Physical Phenomena I 3 Y

Science for non-science majors seeking to explain curious events through laboratory experiences and study of motion, gravity, machines, energy, and properties of matter.

SCI 105 Science-Questions and Quests: Physical Phenomena II 3 Y

Science for non-science majors seeking to explain curious events through laboratory experience and study of heat, sound, electricity and magnetism, light, chemistry, and astronomy.

SCI 544 Teaching of College Science 3 Y

Current approaches. Analysis of teaching methods, such as lectures, discussions, evaluation, use of institutional technology, individualized instruction. Supervised teaching experiences to aid self-improvement as a college science teacher.

## Sociology

**SOC 101 Introduction to Sociology 3 S**  
Principal concepts, methods, and findings in sociology. Societal structures, processes, institutions, and social roles from both macro- and microanalytic human behavior perspectives.

**SOC 102 Social Problems 3 S**  
Application of sociological theory and methods to identification, description, and analysis of contemporary social problems. Critique and analysis of alternative strategies for social change.

**SOC 200 Selected Topics 1-3 S**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**SOC 230 Intergroup Dialogue 3**  
Crosslisted with: WGS 230  
Guided intergroup communication skills. Cycle of socialization; social identities, and social structures that create and maintain inequality; power of dynamic of racism, sexism, and other systems of oppression. Students explore conflict and enact collaboration to deepen understanding. R1, 6 credits maximum

**SOC 248 Ethnic Inequalities and Intergroup Relations 3 S**  
Crosslisted with: WGS 248  
Identification of individuals and groups by self and others as members of ethnic categories. Consequences of ethnic identifications for individual, group, and societal interaction. Emphasizing ethnic inequalities, group interactions, social movements and change, racism, prejudice, and discrimination.

**SOC 254 Comparative Study of American Ethnic Communities 3 SI**  
Crosslisted with: AAS 254  
Variety of ethnic communities in American society. Comparative analysis of similarities and uniqueness. Issues of group conflict, diversity, and unity.

**SOC 281 Sociology of Families 3 S**  
Crosslisted with: WGS 281  
Families and their connections to other social and economic institutions. Diversity of family forms and experiences. Formation and dissolution of relationships. Trends and changes.

**SOC 300 Selected Topics 1-3 IR**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**SOC 301 Contemporary Asian Americans 3 Y**

Crosslisted with: SAS 301  
An overview of the Asian American experience.

**SOC 305 Sociology of Sex and Gender 3 S**  
Crosslisted with: WGS 305  
Social forces shaping women's and men's lives in contemporary societies. Changing gender expectations. Intersections of gender with race and ethnicity, class, and age. Social movements for women's and men's liberation.

**SOC 306 Sexuality in Spain 3 S**  
Crosslisted with: QSX 306, WGS 306  
Offered only in Madrid. Explores important transformations in Spaniards' concepts of sexuality and gender through readings, film screenings and observing certain urban areas in Madrid.

**SOC 309 Race, Gender and Sexuality in African Diaspora 3 S**  
Crosslisted with: AAS 309, WGS 309  
To introduce students to the reality of how racism informs the common sense understanding of Black sexuality.

**SOC 312 The Pale and Beyond 3 IR**  
Crosslisted with: PSC 432  
Field studies seminar based in Dublin and Belfast, explores whether a shared sense of being Irish exists despite the struggle and separation between the largely Catholic south and the largely

**SOC 318 Introduction to Research 3 S**  
Techniques and problems of research in sociology. Research design, measurement, and data collection using surveys and other techniques. Computer analysis skills for social science data. Research project.

**SOC 319 Qualitative Methods in Sociology 3 S**  
Crosslisted with: WGS 317  
Field research methods including participant observation, unstructured interviewing, life histories, and case studies. Preparation and analysis of fieldnotes and interview data.

**SOC 334 Criminal Justice 3 Y**  
Organization of criminal justice system in the United States and relations between its parts. Ideal versus actual roles of police, courts, and corrections in maintaining social control.

**SOC 335 Political Sociology 3 IR**  
Double Numbered with: SOC 635  
Relationships between society and politics. Impacts of individuals, groups, parties, and institutions on state power in global perspective. Additional work required of graduate students.

**SOC 343 The Deviance Process 3 Y**  
Social processes that define behaviors or people as "deviant". Theories of anomic and nonconforming behavior. Individual, interpersonal, and structural consequences of labeling and exclusion.

**SOC 345 Spanish Society and Pop Culture 3 S**  
Crosslisted with: ANT 355  
Offered only in Madrid. Explores what is considered important, good, and fashionable in Spain today and how these values relate to historical developments as well as foreign influences.  
PREREQ: SPA 201.

**SOC 351 Urban Poverty 3 IR**  
Analysis of the causes, manifestations and responses to urban poverty in the U.S. Focus on welfare reform, the low-wage labor market, and housing and homelessness. Includes attention to poverty in local context of Syracuse.

**SOC 353 Sociology of the African American Experience 3 E**  
Crosslisted with: AAS 353  
Theory and research of African American sociologists in the historical, social, and political context of American sociology. Relation of their work to the African American experience and its reception and impact in the public policy arena.

**SOC 354 Gender, Militarism, and War 3 IR**  
Crosslisted with: PSC 386, WGS 354  
Militarism and war are examined by focusing on their relationship to gender. What does gender have to do with war? How do masculinity and femininity along with race work to create soldiers and enemies?

**SOC 355 Sociology-of Health and Illness 3 Y**  
Crosslisted with: WGS 355  
Conceptions of health and illness in society. The nature and organization of health professions and health delivery systems. Social aspects of health related behavior.

**SOC 357 Sociology of American Business 3 IR**  
Relationship between business and society. Large corporation, small business and "franchise capitalism," merchandising and social change, social bases of investment and entrepreneurship, and business and politics.

SOC 361 Youth, Schooling and Popular Culture 3 Y

Crosslisted with: CFE 362, WGS 362

Positioned where school, media, and youth cultures intersect. How schools and media represent "good" and "bad" youth, and how youth negotiate schools and popular cultures. Includes theories of popular culture and adolescence. Additional work required of graduate students.

SOC 362 Religion, Identity and Power 3

Crosslisted with: PSC 362, REL 355

Examines ascendancy of religious movements; prominence of religious ideas; secularization and religion as a political force; conceptual and historical issues in relation to religious ideas and movements, including various Islamic revivals and the Christian right. Offered in London and Madrid only.

SOC 363 Urban Sociology 3 Y

Influence of the urban way of life. Ecological and population structure and changes in the modern composite city and metropolitan region. Urban planning in relation to economic patterns, family, education, government, recreation, and religion.

SOC 364 Aging and Society 3 Y

Crosslisted with: WGS 364; Double Numbered with: SOC 664

Current policy issues in an aging society. Health care, end-of-life, social security, productive aging, and generational equity. Special problems facing elderly women and minorities.

SOC 367 Sociology of Sport 3 S

Sport and race. Class and gender. College sports. Interrelationships among sport, media, and business/industry.

SOC 373 Sociology of Work 3 IR

Meaning and significance of work for individuals and societies. Changing nature of work. Structures of work and the labor force. Occupational recruitment, socialization, mobility, and discrimination.

SOC 377 Class, Status, and Power 3 IR

Double Numbered with: SOC 677

Structures, causes, and consequences of socio-economic inequalities in modern societies. Poverty and wealth, social mobility, and the persistence of inequality. Comparison and assessment of theories of social stratification.

SOC 397 Criminology 3 Y

Nature and significance of crime. Historical and modern explanations of crime. Varieties of crime. Issues in measuring crime and assessing its effects. Evaluation of crime control strategies.

SOC 400 Selected Topics 1-3 S

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SOC 406 Sociological Theory 3 S

Introduction to classic and contemporary theory in sociology. Relevance of theory to research and analysis of social issues.

SOC 409 Sociology of the Globalization of Music 3 Y

Intercultural course introducing the study of traditional and modern non-western music in cultural context. Focus on non-western urban, hybridized forms of popular music. Course fee covers tickets and related costs. Offered in London only.

SOC 410 Seminar on Social Change 3 IR

Crosslisted with: AAS 410

Changes in African American communities or in the circumstances of African Americans within a particular institutional arena. Movements to promote change and obstacles to change. Substantive focus varies. R

SOC 412 Multicultural London 3 Y

Political, social and economic patterns of urban development; recent debates about multicultural cities; development of urbanism; political strategies; ethnic pluralism in British society; issues of identity, race, ethnicity and religion. Mandatory site visits. Offered in London only.

SOC 413 There Goes the Neighborhood:

US Residential Segregation 3 SI

Crosslisted with: AAS 413

Chronicles patterns of racial residential segregation in the US by examining the methods that maintain racially distinct neighborhoods. Explores link between segregation and education, social mobility, health, and mortality.

SOC 415 Global Cities 3 E

Sociological perspectives on city character and development in the light of expanding urbanization on an international scale: demographic dynamics and immigration, economic growth, politics and governance, and other areas including infrastructure and environment connections and culture.

SOC 416 Race, Crime and Punishment 3 SI

Crosslisted with: AAS 416

The multiple and complex relationships between race, the power to punish, and crime control policies and practice. Exploration of the theories of crime and punishment from classic to postmodern.

SOC 417 Sociology of Disaster 3 S

Social effects of disaster from macro and micro levels of analyses. How social structures, groups and institutions react to the loss of social function as a result of disaster.

SOC 421 Population Issues 3 IR

Human mortality, fertility, and migration and how they affect social life. Life expectancy, low fertility, health disparities, family planning, and urbanization. United States and cross-national comparisons.

SOC 422 Work and Family in the 21st Century 3 S

Crosslisted with: CFS 422, WGS 422

Examines the social, demographic, and economic forces that are reshaping the boundaries between family and work.

SOC 423 Technology, Science and Society 3 O

How technology and science shape and re-shape our experiences of 'self' and 'body' and our visions of 'nature' explored through history, theory, science fiction, art, and our sociological imaginations.

SOC 424 Representations of Ability & Disability 3 E

Crosslisted with: DSP 424

Representations of disability in autobiographical accounts and professional narratives, and implications of these representations for educational practice and policy.

SOC 425 Feminist Organizations 3 Y

Crosslisted with: WGS 425; Double Numbered with: SOC 625

Women's movement history in the United States and internationally. Successes and problems of organizations built by feminist activism. Implications for a new generation of feminist (and other) activism. Additional work required of graduate students.

SOC 426 Social Issues and Deliberative Democracy 3 IR

Examination of social issues and public policy through the process of public deliberation. Class projects involving community forums. Social research, critique and analysis of public policy and social change.

SOC 427 New York City: Black Women Domestic Workers 3 Y

Crosslisted with: AAS 427, WGS 427; Double Numbered with: SOC 627

Historical understanding of Black women's engagement in paid domestic work in the United States, increasing need for domestic workers in the ever-changing economy and family, and the social construction of Black women as "ideal" domestic workers.

SOC 428 Culture, Sub-culture and Style 3 S

Offered only in London. Examines cultural change, debates about culture, and how cultural phenomena are related to the societies from which they emerge.

SOC 429 Politics, Gender and Race in the Contemporary Spanish Short Story 3 S

Crosslisted with: SPA 429, WGS 429

Offered only in Madrid. Overview of the Spanish short story from late 19th century to present. Themes of political and social rifts of Spanish society in the 20th century, female representations, and images of exclusion. PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

SOC 432 Gender and Disability 3 Y

Crosslisted with: DSP 432, WGS 432

This course will investigate the intersection of gender and disability and how it impacts such issues as representation/self-representation, art and poetry, illness, education, sexuality, reproduction and motherhood, and caring work.

SOC 433 Race, Class, and Gender 3 Y

Crosslisted with: WGS 433

Intersection of oppression and privilege via socially constructed categories of "race," "class," and "gender." Racism, sexism, institutional authority, and multiculturalism.

SOC 434 Globalization and Social Change 3 IR

How globalization is reshaping people's lives in the US and other societies. Causes, directions, consequences. Linking and standardization of patterns of consumption, culture, and production around the world.

SOC 435 Sexual Politics 3 IR

Crosslisted with: WGS 435

Social construction of sex and sexuality. Formation and organization of sexual communities, of sexuality as a form of social control. Social issues related to sexuality.

SOC 438 Disability and Popular Culture 3 Y

Crosslisted with: DSP 438

Explore representations of disability through the analysis of books, movies, television, cartoons, and journalism. It will examine how disability is portrayed by people with and without disabilities, and discuss influences on public perceptions of disability.

SOC 440 Sociology of Disability 3 IR

Crosslisted with: DSP 440

A theoretical understanding of disability through the lens of sociology and that of disability studies and demonstrates how cultural institutions shape conceptions of disability in society.

SOC 441 Federal Indian Policy and Native American Identity 3 IR

Crosslisted with: NAT 441

Shifts in Federal Indian policy and the social construction of American Indian identity. Identity struggles and identity politics in relation to blood and descent, community, land and sovereignty.

SOC 444 Contemporary Native American Movements 3 IR

Crosslisted with: NAT 444

Sociological analysis of Native American movements from 1960s to the present. National and regional movements in relation to jurisdictional issues and human rights. Red Power and pan-Indian movements are considered.

SOC 445 The Caribbean: Sex Workers, Transnational Capital, and Tourism 3 Y

Crosslisted with: AAS 445, WGS 445; Double Numbered with: SOC 645

A political economy approach to educating students about the human and capital costs of tourism to the Caribbean. The integral relationship between sex work and Caribbean tourism exposes the region's development that has resulted in its current configuration.

SOC 446 The Social Impact of the Internet 3 IR

Double Numbered with: SOC 646

Sociological implications of instantaneous communication, online publishing, identities and interactions, communities transcending geographic borders, and openly available information and opinion. Additional work required of graduate students. Offered only online.

SOC 447 Social Change and Conflict in Modern China 3 IR

Social and economic transformations in China in terms of social classes, cultural patterns, urban change, family patterns, ethnic tensions, and struggles over political rights. Questions of Taiwan and Tibet. How China's development affects the U.S.

SOC 448 The Dynamics of Prejudice and Discrimination 3 IR

Double Numbered with: SOC 648

Research and theory of prejudice and discrimination: inclusion/exclusion of individuals/social groups; classification of in/out groups; contributing roles of processes (difference, power, labeling, silencing). Recommended for upper-level students with some social science background and other coursework dealing with social inequities.

SOC 449 The Sociology of Evil 3 IR

Double Numbered with: SOC 649

Social conditions and processes allowing systematic dehumanization; perspectives of victim, perpetrator, audience, possibility of reconciliation. Extreme examples of evil; subtle ways of dehumanizing the other. Ethnic cleansing, international trafficking, terrorism. Additional work required of graduate students. Offered only online.

SOC 454 Family and Gender in Contemporary Italy 3

Crosslisted with: HST 454, WGS 454

Family structures and gender relations in Italy from the Unification to the present. Offered only in Florence.

SOC 456 LGBT Studies in Sociology 3 IR

Crosslisted with: QSX 456, WGS 456

Recent sociological research in lesbian, gay, bisexual, and transgender studies addressing sexuality, identity, community, representation, politics, social change and their inter-relations.

SOC 457 Gender, Politics, Society in Europe (1400-1800) 3 IR

Crosslisted with: HST 457, WGS 457

Relationship between the sexes in politics, philosophy, literature, and art. Emergence of a dissident "voice" relative to gender identity and social role, with implications for race and religion. Offered only in Florence.

SOC 458 Contemporary Issues in Turkey 3 S

Crosslisted with: IRP 458, PSC 458

Offered only in Istanbul. Key political and social issues in contemporary Turkey. Democratization; relationship between secularism, the role of the military and Islam in political life; foreign policy including Turkish-US relations; nationalism, minorities, gender, human rights. Additional work required of graduate students.

SOC 466 Organizations and Society 3 IR

Nature and types of organizations and organizational processes. Dynamic relationships of organizations to societies and individual identities.

SOC 470 Experience Credit 1-6 SI  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

SOC 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

SOC 492 Work and Inequality 3 IR  
Crosslisted with: WGS 492  
Current and past issues in research and policy concerning inequalities associated with work. Social construction and structural arrangements of work in American society.

SOC 495 Senior Thesis 3 Y  
Contemporary issues in sociology. Study of a particular problem by research methods. Collection and analysis of data. Written thesis and oral presentation required.

SOC 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

SOC 500 Selected Topics 1-3 SI  
In-depth selected study of certain social problems. R

SOC 513 Statistics for Social Science 3 Y  
Designed for first-year graduate students and sociology majors considering graduate study. Measures of central tendency and dispersion, hypothesis testing, and indices of association between variables. Application of statistics to social science data.

SOC 571 Topics in Sociolinguistics 3 SI  
Crosslisted with: ANT 571, LIN 571  
Functions of language in society. Geographical, socioeconomic, and male-female differentiation. Functions of various types of speech events. Requirements include a research project. R1, 6 credits maximum

### Soling Program

SOL 240 Practicum in the Humanities-Soling 1-6 SI  
Humanities practicum in the Soling Program. R

SOL 250 Practicum in the Natural Sciences and Mathematics-Soling 1-6 SI  
Natural sciences practicum in the Soling Program. R

SOL 260 Practicum in the Social Sciences-Soling 1-3 SI  
Social sciences practicum in the Soling Program. R

SOL 290 Independent Study 1-6  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

SOL 304 Soling Project I: Introduction to Team Problem Solving 3 S  
Teams of 3-5 students complete a project sponsored by the University community. Emphasis: working in a cooperative learning environment, using University resources, acquiring basic problem solving skills.

SOL 305 Soling Project II: Intermediate Team Problem Solving 3 S  
Students supervise a team of 3-5 students completing projects sponsored by the greater SU community. Emphasis: planning, coordinating, and communicating.

SOL 340 Practicum in the Humanities, Soling 1-6 SI  
Humanities practicum in the Soling Program. R

SOL 344 Creativity and the Art of Crossing Borders 3 Y  
Explores the folk and fine art of puppetry through hands-on studios and workshops; an incubator for the students' creative self expression.

SOL 345 Puppets and Community 3 Y  
Linking Open Hand Puppet Theater, the Syracuse City schools and SU students will collaborate with third graders at a city school to create giant puppets for use in a puppet pageant that will capture, celebrate, and unify the diverse groups of that community.

SOL 350 Practicum in the Natural Sciences and Mathematics, Soling 1-6 SI  
Natural sciences practicum in the Soling Program. R

SOL 360 Practicum in the Social Sciences, Soling 1-6 S  
Social sciences practicum in the Soling Program. R

SOL 400 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SOL 404 Soling Project III: Advanced Team Problem Solving 3 S  
Students interact with an off-campus sponsor in defining and completing a project that meets a specific need.

SOL 405 Soling Project IV: Technical Problem Solving 3 S  
Student forms teams that act as consultants to other Soling teams to provide technical assistance.

### Social Science

SOS 200 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SOS 400 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SOS 407 Political Integration and Disintegration in Western Europe 3 IR  
Crosslisted with: PSC 407  
Origins of the modern territorial states of western Europe. Growth of supranational institutions, such as the European Economic Community, and their impact on European economic and political development. Offered only in Florence.

SOS 408 Comparative Social Movements 3 IR  
Crosslisted with: PSC 408  
Origin and policy impact of contemporary and historical European movements for social and political change. Labor movements, Eurocommunism, feminism, national socialism, fascism, and peace movements. Offered only in Florence.

SOS 575 Philosophy of Social Science 3 O  
Crosslisted with: PHI 575  
Philosophical and methodological issues in social and behavioral science. Role of laws in explanation of human action, methodological individualism and holism, functional explanation, value-neutrality, behaviorism, and computer simulation.

## Spanish

### SPA 101 Spanish I 4 Y

Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Spanish. No prior experience or admission by placement testing. Students cannot enroll in SPA 101 after successfully completing SPA 102, SPA 201, or SPA 202 or higher.

PREREQ: REQUIRED PLACEMENT EXAM SCORE.

### SPA 102 Spanish II 4 S

Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Spanish. Students cannot enroll in SPA 102 after successfully completing SPA 201, SPA 202 or higher.

PREREQ: SPA 101 OR REQUIRED PLACEMENT EXAM SCORE.

### SPA 201 Spanish III 4 S

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Spanish. Students cannot enroll in SPA 201 after successfully completing SPA 202 or higher.

PREREQ: SPA 102 OR REQUIRED PLACEMENT EXAM SCORE.

### SPA 202 Spanish IV 4 S

Continuing proficiency-based course which focuses on reading, discussing, and analyzing authentic texts as a basis for the expression and interpretation of meaning. Conducted in Spanish. Students cannot enroll in SPA 202 after successfully completing a course higher than SPA 202.

PREREQ: SPA 201 OR REQUIRED PLACEMENT EXAM SCORE.

### SPA 211 Intermediate Oral Practice 1 S

Additional practice for students in SPA 201 or 202. Attention confined to the spoken language. R

### SPA 212 Intermediate Oral Practice 1 S

Additional practice for students in SPA 201 or 202. Attention confined to the spoken language. R

### SPA 301 Approaches to Reading Texts 3 Y

Introduction to reading and analyzing texts written in Spanish.

### SPA 302 Advanced Language Usage 3

Crosslisted with: LAS 315

Advanced grammar, composition, and conversation.

### SPA 305 Mare Nostrum: Mediterranean

Introduction to Spain 2 S

Thirteen-day seminar introduces students to Spanish culture with an emphasis on the heritage and industry of the Mediterranean and the consciousness that has shaped cuisine, literature, architecture, fashion, lifestyles and social mores in contemporary Spain. Offered only in Spain.

PREREQ: SPA 201.

### SPA 321 Introduction to Spanish

Literature 3 E

Introductory-level study of representative literary texts of Spain from the 12th century to the present.

### SPA 322 Introduction to Latin American

Literature 3 Y

Crosslisted with: LAS 302

Modern Latin American literature using new methods of study, basically Cultural Semiotics.

### SPA 325 Colonial Latin America 3 S

Crosslisted with: HST 322, LAS 322

Development of Amer-Indian civilization and the Spanish conquests. Evolution of the Spanish American economy and the unique American culture. Growth of the plantation economy of Brazil. The movements toward independence.

PREREQ: SPA 201 OR 202 OR (SPA 300 OR ABOVE).

### SPA 326 Beyond the Screen: Latin

American and Spanish Film 3

Crosslisted with: LAS 326

Film theories (historical, auteur, national, etc) and terminology, trends in film, women in film, problems with cultural representation.

### SPA 334 Contemporary Issues in Chile

and Latin America 3 S

Crosslisted with: HST 406, IRP 334, LAS 334, PSC 428

Offered only in Santiago. This seminar features in-situ lectures and activities in Chile, Argentina and Uruguay introducing important political, sociological and environmental issues in the Southern Cone region.

### SPA 364 Modern Spanish Art 3 S

Crosslisted with: HOA 464

Spanish art and architecture from the late eighteenth century to the present. Goya, succeeding styles and movements to the modernism of Picasso, Miro, and Dali, and later styles. The architecture of Gaudi. Offered only in Madrid.

PREREQ: SPA 201 OR SPA 202 OR (SPA 300 OR ABOVE).

### SPA 400 Selected Topics in Spanish 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### SPA 402 Hispanic Journalistic Practices 3

S

Crosslisted with: LAS 402

Examines journalism and media in Spanish as they are practiced in Spanish-speaking countries and the U.S. Conducted in Spanish. [Effective spring 2009]

### SPA 403 Advanced Methods for Teaching

Spanish 3 Y

Presents theory and teaching methodology and develops the practical aspects of teaching Spanish as a second language.

PREREQ: LIN 421 AND SPA 301 AND SPA 302.

### SPA 417 History of Women in Spain 3 S

Crosslisted with: HST 417, WGS 417

Offered in Madrid only. History of women in Spain from primitive communities to the present. Topics include medieval, Golden Age, Enlightenment, and Romanticism; liberalism and feminism; women under Franco; Marxism and feminism; feminist movement in Spain.

PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

### SPA 429 Politics, Gender and Race in the

Contemporary Spanish Short Story 3 S

Crosslisted with: SOC 429, WGS 429

Offered only in Madrid. Overview of the Spanish short story from late 19th century to present. Themes of political and social rifts of Spanish society in the 20th century, female representations, and images of exclusion.

PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

### SPA 433 Business Spanish 3

Crosslisted with: LAS 433

Language usage in relation to Spanish and Latin American business.

### SPA 435 Spanish Phonetics and

Phonology 3

Double Numbered with: SPA 635

Introduction to formal linguistic analysis of the Spanish sound system. Survey of dialectal variation. Additional work required of graduate students.

### SPA 436 The Structure of Spanish 3

Double Numbered with: SPA 636

Introduction to the formal linguistic analysis of the structure of Spanish sentences.

Additional work required of graduate students.

SPA 437 Introduction to Spanish  
Linguistics 3

Double Numbered with: SPA 637

Formal linguistic analysis of the Spanish language: phonetics, phonology, morphology, syntax, and language variation (sociolinguistics and dialectology). Taught entirely in Spanish. Additional work required of graduate students. PREREQ: SPA 202.

SPA 438 History of the Spanish Language  
3

Double Numbered with: SPA 638

The evolution of modern Spanish. The causes of linguistic change, the development of the phonological and morphosyntactic systems, the semantic/lexical development of the language. Additional work required of graduate students.

SPA 439 Community Outreach:  
Language in Action 3 IR

Crosslisted with: LAS 439; Double Numbered with: SPA 639

Language immersion in the Spanish-speaking community in the Syracuse area. Emphasis on improving spoken and written Spanish through a service learning component. Additional work required of graduate students.

SPA 441 Medieval and Golden Age  
Literature 3

Critical reading and discussion of significant literary works drawn from the Middle Ages and the 16th and 17th centuries.

SPA 443 Cervantes 3 IR

Don Quixote, with selections from other representative works by Cervantes.

SPA 451 Identities and Cultures of Spain  
3

Literary works will include texts by Jovellanos, Feijóo, Larra, Pardo Bazán, Ganivet, Unamuno, Goytisolo, Martín Gaité, and Subirats, among others.

SPA 453 Spanish Literature (20th  
Century) 3

Diachronic study of the Spanish short story and poetry. Emphasis on the different modes of neorealism, experimentalism, and the most recent trends.

SPA 455 Romantics and Realists: Gender  
Politics in Spanish Literature and Film 3

Analyze the invention of notions like literature, women, and nation in Spain. Representations of women in literary and cinematic texts.

SPA 457 Civil War to Contemporary  
Spanish Literature and Culture 3

Spanish writers during and after Franco's dictatorship. Literary works will include texts by Laforet, Cela, Rodereda, Gil de Biedma, Riera, Millas, among others.

SPA 458 20th Century Spanish Theater 3

Diachronic study of the Spanish theater. Literary works will include texts by Valle-Inclán, García Lorca, Sastre, Buero Vallejo, Arrabal, Pedrero, and Onetti, among others.

SPA 459 Contemporary Spanish Cinema  
3 S

Offered only in Madrid. Survey of Spanish cinema since 1950 through classic directors Buñuel, Saura and Erice, and contemporary auteurs Almodóvar and Amenábar. Special attention also given to female directors and recent horror classics.

PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

SPA 461 Nobel Prize Writers of the  
Spanish-Speaking World 3

Crosslisted with: LAS 461  
Presents works by 10 Nobel Laureates in Spanish.301

SPA 462 Border Culture 3 E

A theoretical reflection on the notion of frontier in contemporary times. A review of the different types of representations (literary, artistic, film) and the subject that lives in the notion of frontier. Emphasis on the US-Mexico border.

SPA 463 Contemporary Latin American  
Theater 3

Crosslisted with: LAS 463  
Introduction to major theater works and movements in 20th-century Latin America.

SPA 465 Literature and Popular Culture  
3

Crosslisted with: LAS 465  
Mass culture and post modernism. Interactions between mass media culture, art, and politics in Latin America.

SPA 467 Film and Literature 3

Crosslisted with: LAS 467  
A critical study of books made into film in Latin American literature.

SPA 470 Teaching Experience 1-6 S

Supervised practical experience in teaching beginning and/or intermediate oral Spanish. R

SPA 471 Contemporary Latin American  
Literature 3

Crosslisted with: LAS 471  
Latin American literature from the 1920s to the present. Emphasizes the development of the contemporary novel.

SPA 475 Women, Myth and Nation in  
Latin American Literature 3

Crosslisted with: LAS 475, WGS 475

Myths about women and nation. Modern interpretations and reconstructions of these myths in contemporary literature by Latin American women writers. Literary texts with theories on myth. Representation and "real" constructions of feminine and national identities in different regions of Latin America.

SPA 479 Perspectives on Mexico and  
Central America: Literature, Art, Film 3

Crosslisted with: LAS 479

Literary works, films and arts created in Central America. Topics include perspectives on indigenism, feminine and masculine identities, religion, politics, technology and its future implications on those countries.

SPA 481 The Literature of Latinos in the  
United States 3

Crosslisted with: LAS 481

Short stories and poetry written in Spanish by Latinos. Themes such as identity, language, and culture. Political, social, and cultural readings.

SPA 489 Hispanic Caribbean Narrative  
and Film 3

Crosslisted with: LAS 489

Texts in Spanish by Caribbean writers. Explores themes such as women, politics, death, identity. Readings are accompanied by films and followed by critical theory and analysis.

SPA 493 Afro-Hispanic Topics in  
Caribbean Literature 3

Crosslisted with: LAS 493

Caribbean African-Hispanic literature (poetry and short stories) with different areas of social and political interest. Emphasis on different Caribbean religions.

SPA 494 Hispanic Caribbean Literature 3  
E

Crosslisted with: LAS 494

This course studies the Spanish Caribbean's multiple identities through the discussion of a series of literary and cultural texts. The course concentrates on race, gender, sexuality, migrations, postcolonial relations, popular culture and diasporas.

SPA 495 Marginal Cultures in Hispanic  
Caribbean Literature 3

Crosslisted with: LAS 495

Caribbean poetry and short stories about race, gender, and homoeroticism. Includes social, political, and cultural readings.

SPA 497 Text and Context in Cuban Revolutionary Literature 3

Crosslisted with: LAS 497

Literary works of the Cuban revolutionary period by Cuban and Cuban-American authors from different literary and political points of view.

SPA 498 Citizenship and Urban Violence in Latin America 3 Y

A reflection on the inherent violence that characterizes Latin American urban centers, and the implications of such violence for their citizens.

SPA 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

Science, Technology, And Society

STS 101 Introduction to Science, Technology, and Society 3 Y

Crosslisted with: BPS 101

Assessing technological innovations and their impact on society. Economic, political, and ethical considerations in development of public policy. Examples will include biotechnology and energy technology.

STS 203 Introduction to Technology 3 Y

Crosslisted with: ECS 203

Basic engineering principles behind some of today's rapidly changing technologies. The capabilities, limitations, and application of these technologies to audio and TV systems, CD players, communications' satellites, radar, computers, and the electric power system. For nonspecialists.

STS 380 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

STS 410 Science and Technology in the Modern World 3 SI

Crosslisted with: HST 410

Interaction of science with technology from 1700 to the present. Technological artifacts and their scientific background. Development of new technology from scientific research and from old-fashioned dreaming and tinkering.

Applied Statistics

STT 101 Introduction to Statistics 3

Provides a working knowledge of statistics: descriptive statistics, sampling distributions, data analysis using software. Students cannot receive credit after having received a C or better in MAT 121 or MAT 221.

Kiswahili

SWA 101 Kiswahili I 4 Y

Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Kiswahili. No prior experience or admission by placement testing. Students cannot enroll in SWA 101 after successfully completing SWA 102, SWA 201, or SWA 202 or higher.

SWA 102 Kiswahili II 4 Y

Continuing proficiency-based course, which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Kiswahili. Students cannot enroll in SWA 102 after successfully completing SWA 201, SWA 202 or higher.  
PREREQ: SWA 101.

SWA 201 Kiswahili III 4 Y

Continuing proficiency-based course, which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Kiswahili. Students cannot enroll in SWA 201 after successfully completing SWA 202 or higher.  
PREREQ: SWA 102.

SWA 202 Kiswahili IV 4 Y

Continuing proficiency-based course, which further refines and expands previously acquired linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Activities are conducted in Kiswahili. Students cannot enroll in SWA 202 after successfully completing a course higher than SWA 202.  
PREREQ: SWA 201.

SWA 280 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

Tamil

TML 180 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R90

Turkish

TRK 100 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

TRK 101 Turkish I 4 Y

Proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Turkish. Students cannot enroll in TRK 101 after successfully completing TRK 102, TRK 201, or TRK 202 or higher.

TRK 102 Turkish II 4 Y

Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Turkish. Students cannot enroll in 102 after successfully completing TRK 201, TRK 202 or higher.  
PREREQ: TRK 101.

TRK 180 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

TRK 201 Turkish III 4 Y

Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Turkish. Students cannot enroll in TRK 201 after successfully completing TRK 202 or higher.  
PREREQ: TRK 102.

#### TRK 202 Turkish IV 4 Y

Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Turkish. Students cannot enroll in TRK 202 after successfully completing a course higher than TRK 202.  
PREREQ: TRK 201.

#### Undergraduate Research Program

##### URP 100 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

##### URP 150 Undergraduate Research I 1-6 S

Research or other academic work in conjunction with faculty-generated research or professional work project as administered through the Undergraduate Research Program. R3, 12 credits maximum

##### URP 250 Introduction to Undergraduate Research II 1-6 S

Research or other academic work in conjunction with faculty-generated and sponsored research or professional work project as administered through the Undergraduate Research Program. R

##### URP 270 Experience Credit 1-6 SI

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

##### URP 450 Advanced Undergraduate Research 1-6 S

Research or other academic work in conjunction with faculty-generated and sponsored research or professional work project as administered through the Undergraduate Research Program. R

##### URP 470 Experience Credit 1-6 SI

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

#### Women's And Gender Studies

##### WGS 101 Introduction to Women's Studies 3 S

Gender as a critical inquiry relating to race, class, and sexuality.

##### WGS 192 Gender and Literary Texts 3 S

Crosslisted with: ETS 192  
Construction and representation of "gender," especially as it affects the production and reception of literary and other cultural texts.

##### WGS 201 Transnational Feminist Studies 3 Y

Comparative study of women's lives, experiences, histories, and struggles across national and regional borders. Focuses on questions of theory, methodology, and politics of knowledge involved in cross-cultural feminist studies.

##### WGS 230 Intergroup Dialogue 3 S

Crosslisted with: SOC 230  
Guided intergroup communication skills. Cycle of socialization; social identities, and social structures that create and maintain inequality; power of dynamic of racism, sexism, and other systems of oppression. Students explore conflict and enact collaboration to deepen understanding. R1, 6 credits maximum

##### WGS 240 Topics in Contemporary Feminisms 3 Y

This course exams contemporary feminisms through various forms of theory, expression and activism. The course explores the theoretical underpinnings of current feminist praxis through lenses such as intersectionality and transnationalism. R1, 6 credits maximum

##### WGS 248 Ethnic Inequalities and Intergroup Relations 3 S

Crosslisted with: SOC 248  
Identification of individuals and groups by self and others as members of ethnic categories. Consequences of ethnic identifications for individual, group, and societal interaction. Emphasizing ethnic inequalities, group interactions, social movements and change, racism, prejudice, and discrimination.

##### WGS 258 Poverty and Discrimination in America 3 Y

Crosslisted with: ECN 258  
Nature and causes of inequality, poverty, and discrimination in rural and urban America. Income maintenance, employment, training, education, and other antipoverty programs; antidiscrimination and equal opportunity policies. Students may not receive credit for both ECN/WGS 258 and ECN/WGS 358.

##### WGS 281 Sociology of Families 3 S

Crosslisted with: SOC 281  
Families and their connections to other social and economic institutions. Diversity of family forms and experiences. Formation and dissolution of relationships. Trends and changes.

##### WGS 297 Philosophy of Feminism 3 Y

Crosslisted with: PHI 297  
Philosophical analysis of feminist theory. Feminist theories about human nature, gender, relations among gender, race and class, and causes of and remedy for women's subordinate status.

##### WGS 300 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

##### WGS 301 Feminist Theory 3 Y

Advanced critical inquiry into frameworks of meaning that organize contemporary issues on the politics of gender emphasizing history of feminism, global perspectives, psychology of women and feminist philosophy.

##### WGS 303 Black Women Writers 3 Y

Crosslisted with: AAS 303  
Literature and scholarship by Black women writers. Analytical reading, writing and discussion of various topics, stylistic questions, strategies generated in autobiography, fiction, drama, poetry, speeches and scholarship: 1960's to present, and earlier times. Bambara, Davis, Hurston, Jones, Lorde, Morrison, Williams.

##### WGS 305 Sociology of Sex and Gender 3 S

Crosslisted with: SOC 305  
Social forces shaping women's and men's lives in contemporary societies. Changing gender expectations. Intersections of gender with race and ethnicity, class, and age. Social movements for women's and men's liberation.

##### WGS 306 Sexuality in Spain 3 S

Crosslisted with: QSX 306, SOC 306  
Offered only in Madrid. Explores important transformations in Spaniards' concepts of sexuality and gender through readings, film screenings and observing certain urban areas in Madrid.

##### WGS 307 African Women Writers 3 Y

Crosslisted with: AAS 307  
Literature in English and translation by African women writing from a variety of cultural stances and geographic locations in Africa, Europe and North America. Writing styles and creative modes of expression used by African women writers to convey and envision the life of their work. Adichie, Aidoo, Dangaremba, El Sadaawi, Liking, Mbye d'Ernville, Tadjó.

WGS 309 Race, Gender and Sexuality in African Diaspora 3 S

Crosslisted with: AAS 309, SOC 309

To introduce students to the reality of how racism informs the common sense understanding of Black sexuality.

WGS 310 Feminist Inquiries 3 Y

Examine interdisciplinary approaches to feminist theories, methodologies, and epistemologies. Offers a comparative approach to feminist research. Students read, critique, and write from feminist perspectives and interrogate what it means to ask feminist questions.

PREREQ: WGS 101 OR 201. R

WGS 317 Qualitative Methods in Sociology 3 S

Crosslisted with: SOC 319

Field research methods including participant observation, unstructured interviewing, life histories, and case studies. Preparation and analysis of fieldnotes and interview data.

WGS 318 American Social Movements 3 Y

Crosslisted with: PSC 328

Social movements were always integral to American politics. Includes emergence, strategies, political context and influence of temperance, abolition of slavery, women's suffrage, labor, civil rights, anti-war, feminism, nuclear freeze, gay rights, and global justice movements.

WGS 319 Gender and Politics 3 Y

Crosslisted with: PSC 319

Relationships between gender and American political institutions, law, and policymaking processes. How social movements based on gender, prevailing gender ideologies, and gender relations have shaped American politics. Exploring how the American state has shaped the political meanings and relative positions of power associated with men and women.

WGS 324 Modern South Asian Cultures 3 O

Crosslisted with: ANT 324, SAS 324

Societies of India, Pakistan, Bangladesh, and Sri Lanka. Social organization, economic and political structures, religions and world view, survey of languages, the arts. Transition and modernization, rural and urban problems.

WGS 325 Economics and Gender 3 Y

Crosslisted with: ECN 325

Economic issues examined within a gender sensitive context. Includes the economics of family, the economics of marriage, and labor market discrimination and segregation.

WGS 326 Persons in Social Context 3 Y

Crosslisted with: SWK 326

Assessment of behavior of diverse individuals, groups, and social systems. Applying concepts from the biological, behavioral, and social sciences in identifying and understanding forms and causes of behavior.

WGS 327 Africa Through the Novel 3 IR

Crosslisted with: ANT 326

Cultural, political, and social life of Africa and Africans through African literature. Each semester deals with a motif (e.g., novels of Achebe).

WGS 328 Human Diversity in Social Contexts 3 Y

Crosslisted with: SWK 328

Diversity, including race, gender, sexual orientation and selected topics. Examines individual, group, and institutional identity formation. Theories of biopsychosocial development, reference group affiliation, social stratification, oppression, and institutional discrimination. Implications for social work practice.

WGS 329 Biopsychological Perspectives on Women's Health 3 E

Crosslisted with: PSY 329

Psychoanalytic and evolutionary theories of gender and adaptive fitness; psychoneuroimmunological perspectives on sexually influenced disease processes, aging, and biopsychological influences on women's health.

WGS 335 American Social and Cultural History 3 Y

Crosslisted with: HST 335

Nature of "American character" through the last century. Aspects of intellectual life, social mores, industry, and art that represent Americans' definitions of themselves and their nation.

WGS 341 Women, Abolition, and Religion in 19th Century America 3

Crosslisted with: HST 387, REL 341

The role that religion may have played in women's understandings of themselves as abolitionists and social reformers. A selected group of women will be studied, with considerable attention given to Frances Harper.

WGS 342 Women in America: 17th Century to the Civil War 3

Crosslisted with: HST 340

Focus on significant social and political transformation, activism, and individuals

WGS 343 Latina Feminist Theories 3 Y

Crosslisted with: LAS 343, LIT 343

An interdisciplinary inquiry into Latina feminist theories. Engagement with varied sites of knowledge production and examination of how Latina feminisms negotiate issues of gender, race, ethnicity, nation, sexuality, class, and other social locations.

WGS 349 Women in America: Civil War to Present 3

Crosslisted with: HST 349

Focus on significant social and political transformation, activism, and individuals.

WGS 354 Gender, Militarism, and War 3 IR

Crosslisted with: PSC 386, SOC 354

Militarism and war are examined by focusing on their relationship to gender. What does gender have to do with war? How do masculinity and femininity along with race work to create soldiers and enemies?

WGS 355 Sociology-of Health and Illness 3 Y

Crosslisted with: SOC 355

Conceptions of health and illness in society. The nature and organization of health professions and health delivery systems. Social aspects of health related behavior.

WGS 358 Economics of US Poverty and Discrimination 3 IR

Crosslisted with: ECN 358

Economic analysis of inequality, poverty, and discrimination, as applied to USA. Income maintenance, employment, training, education, and other antipoverty programs; antidiscrimination and equal opportunity policies. Students may not receive credit for both ECN/WGS 258 and ECN/WGS 358.

WGS 360 Topics in Reading Gender and Sexualities 3 Y

Crosslisted with: ETS 360

Textual, cultural, and/or historical constructions of gender and sexualities. R2, 9 credits maximum

WGS 362 Youth, Schooling and Popular Culture 3 Y

Crosslisted with: CFE 362, SOC 361; Double Numbered with: WGS 662

Positioned where school, media, and youth cultures intersect. How schools and media represent "good" and "bad" youth, and how youth negotiate schools and popular cultures. Includes theories of popular culture and adolescence. Additional work required of graduate students.

WGS 363 Anthropology of Family Life 3 IR

Crosslisted with: ANT 363

Historical and cross-cultural study of forms of family and domestic organization, marriage, status and sex roles, ideals, and customs of family life.

WGS 364 Aging and Society 3 Y

Crosslisted with: SOC 364; Double Numbered with: WGS 664

Current policy issues in an aging society. Health care, end-of-life, social security, productive aging, and generational equity. Special problems facing elderly women and minorities.

WGS 365 Negotiating Difference: Coming of Age Narratives 3 IR

Using a range of genres explore influence of place, family, and social expectations on self-definition; examines politics of everyday life, including trauma; and considers how authors craft stories in ways that resist marginalization.

WGS 367 Gender in a Globalizing World 3 IR

Crosslisted with: ANT 367, GEO 367

Economic and cultural processes of globalization as they affect different groups of men, women, and households; including gender and work, development and environmental change, and redefinitions of masculinity and femininity across the globe.

WGS 371 Gender in Latin American History 3 IR

Crosslisted with: HST 371, LAS 371

History of women and gender relations from colonial period to the present. Influence of race, class, and ethnicity on gender. Relation of gender to labor, family, sexuality, and politics.

WGS 379 Gender, Race, and Colonialism 3 IR

Crosslisted with: HST 379

Explores the intersection of gender and race in colonial ideologies, imperial practices and anti-colonial nationalist movements, in the 18th and 19th centuries.

WGS 381 Italian and European Theater 1500-1700 3 Y

Crosslisted with: DRA 381, LIT 381

Secular and professional drama as it emerged in Renaissance Italy and spread to Spain, England, and France. Selected works of Machiavelli, Monteverdi, Cervantes, Calderon, Shakespeare, Molière, Behn and others (in English). Offered only in Florence.

WGS 384 Goddesses, Women and Power in Hinduism 3 O

Crosslisted with: REL 384, SAS 384

Interrelationship of power as female and female power in Hindu cosmology, mythology, and society. Complexities of mythic, domestic, and economic gender hierarchies.

WGS 389 LGBT History 3 IR

Crosslisted with: HST 389, QSX 389

The history of lesbian, gay, bisexual, transgender experience in period and region (North America, Europe, or Global) of instructor's expertise, with attention to the international context..

WGS 395 Gender and Popular Culture 3 Y

How gender is created, mediated, maintained and policed through popular culture. The role of celebrity, music, musicians and musical performers and performances, film, television, the news, gossip, the internet, and advertising.

WGS 396 Women and the American Frontier 3 IR

Crosslisted with: HST 396

The North American frontier, from the 17th to the early 20th century, as it was experienced by women of various cultural and national origins.

WGS 400 Selected Topics 1-3 Y

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

WGS 403 African and Caribbean Women Writers 3 IR

Crosslisted with: AAS 403

Comparative approaches and trans-Atlantic analysis of literature by women writers from Africa and the Caribbean. Representations and constructions of social, political, and cultural life in colonial, neo-colonial, and contemporary contexts. Writers such as Ba, Brodber, Dangaremba, Marshall, Head, Dandicat, Nwapa.

WGS 404 Family and Gender in Renaissance Italy 3

Crosslisted with: ANT 404, HST 404

Historical and interdisciplinary exploration of life stages, rites of passage, marriage, family, social life, sodomy, prostitution, career options, and alternate life strategies as illustrated by case studies. Offered only in Florence.

WGS 408 The Practice of Eros: A History of Sexuality in Europe (1400-1800) 3

Crosslisted with: ANT 408, HST 408

Authorized and "alternative" sexuality in Europe 15th to 18th centuries (especially Italy, France, and England.) "Licit love" (courtship, marriage, conjugal relations) as opposed to "illicit unions" (adultery, rape, prostitution, bestiality, homosexuality, lesbianism). Offered only in Florence.

WGS 409 A History of Witchcraft 3

Crosslisted with: ANT 409, HST 409, REL 409

History of witchcraft from various perspectives: its intellectual roots, the causes and dynamics of the witch-hunt, and the beliefs and self-perceptions of those who were called "witches". Offered only in Florence.

WGS 410 Advanced Studies in Feminist Thought 3 Y

Topics in women's and gender studies. PREREQ: WGS 101 OR 201. R

WGS 412 French Women Writers 3 E

Crosslisted with: FRE 412; Double Numbered with: WGS 612

Trends in French feminine and feminist writing from the early modern period to the present. Conducted in French. Additional work required of graduate students.

WGS 413 Identity and Difference 3

Crosslisted with: PHI 413, PSC 413

Interdisciplinary approach to examine concepts of identity and difference, challenges notions of subjectivity, nation and gender. Philosophical, political, and gender-related dimensions explored. Offered only in Florence.

WGS 414 Communication & Gender 3 E

Crosslisted with: CRS 414

Exploration of assumptions under-lying different approaches to gender and communication. Gender and power implications of understanding communication as socially constructing identity and societal structures.

WGS 417 History of Women in Spain 3 S

Crosslisted with: HST 417, SPA 417

Offered in Madrid only. History of women in Spain from primitive communities to the present. Topics include medieval, Golden Age, Enlightenment, and Romanticism; liberalism and feminism; women under Franco; Marxism and feminism; feminist movement in Spain. PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

WGS 422 Work and Family in the 21st Century 3 Y

Crosslisted with: CFS 422, SOC 422

Examines the social, demographic, and economic forces that are reshaping the boundaries between family and work.

WGS 425 Feminist Organizations 3 IR

Crosslisted with: SOC 425; Double Numbered with: WGS 625

Women's movement history in the United States and internationally. Successes and problems of organizations built by feminist activism. Implications for a new generation of feminist (and other) activism. Additional work required of graduate students.

WGS 427 New York City: Black Women Domestic Workers 3 Y

Crosslisted with: AAS 427, SOC 427; Double Numbered with: WGS 627

Historical understanding of Black women's engagement in paid domestic work in the United States, increasing need for domestic workers in the ever-changing economy and family, and the social construction of Black women as "ideal" domestic workers.

WGS 429 Politics, Gender and Race in the Contemporary Spanish Short Story 3 S

Crosslisted with: SOC 429, SPA 429

Offered only in Madrid. Overview of the Spanish short story from late 19th century to present. Themes of political and social rifts of Spanish society in the 20th century, female representations, and images of exclusion. PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

WGS 432 Gender and Disability 3 Y

Crosslisted with: DSP 432, SOC 432

This course will investigate the intersection of gender and disability and how it impacts such issues as representation/self-representation, art and poetry, illness, education, sexuality, reproduction and motherhood, and caring work.

WGS 433 Race, Class, and Gender 3 Y

Crosslisted with: SOC 433

Intersection of oppression and privilege via socially constructed categories of "race," "class," and "gender." Racism, sexism, institutional authority, and multiculturalism.

WGS 435 Sexual Politics 3 IR

Crosslisted with: SOC 435

Social construction of sex and sexuality. Formation and organization of sexual communities, of sexuality as a form of social control. Social issues related to sexuality.

WGS 436 Feminist Rhetoric(s) 3 IR

Crosslisted with: CRS 436, WRT 436; Double Numbered with: WGS 636

Feminist rhetoric from both a historical and global context, utilizing both primary and secondary readings in order to gain a sense of breadth and depth in the field of feminist rhetoric. Additional work required of graduate students.

WGS 438 Trans Genders and Sexualities 3 IR

Crosslisted with: QSX 438

How people actually live sex, gender, and sexuality in infinitely complex and interdependent ways that defy categorizing people as "male" or "female," "man" or "woman," "gay" or "straight" within the prevailing binary system of identities.

WGS 439 Women, Gender and Violence in a Transnational Context 3 IR

Explores the relationship between women, gender, and violence within a transnational feminist framework. Women's experiences of, participation in, and resistance to different forms of violence.

WGS 441 Topics in Feminist Philosophy 3 IR

Crosslisted with: PHI 441

Feminist approaches to traditional philosophical questions in various areas, including epistemology, ethics, metaphysics, and philosophy of science. Use of philosophical tools and methods on questions regarding the subordination of women.

WGS 444 Schooling & Diversity 3 S

Crosslisted with: CFE 444

Construction of diversity (race, ethnicity, gender, nationality, class, disability, sexual orientation) in schools. Emergence of inequalities based on difference in pedagogy and curriculum. Student resistance in relation to cultural diversity. Teaching for empowerment.

WGS 445 The Caribbean: Sex Workers, Transnational Capital, and Tourism 3 Y

Crosslisted with: AAS 445, SOC 445; Double Numbered with: WGS 645

A political economy approach to educating students about the human and capital costs of tourism to the Caribbean. The integral relationship between sex work and Caribbean tourism exposes the region's development that has resulted in its current configuration.

WGS 447 Sexualities and Genders in World Teen Culture 3 IR

Crosslisted with: QSX 447

How teenagers in both U.S. and non-U.S. cultures are transforming their genders and sexual identities in response to the women's and lesbian/gay/bisexual/transgender liberation movements.

WGS 449 Women in Art 3 IR

Crosslisted with: HOA 440

Representation of women in art from prehistoric to contemporary times and the works of women artists in historical contexts.

WGS 451 Visual Culture Past and Present: Gender, Religion and Politics 3

Crosslisted with: CRS 451, HST 451, REL 451

Offered only in Florence. Contemporary visual culture; its representation of gender, religion, and politics and the origins of that representation in a pictorial language first codified in Italy and Europe between circa 1450 and 1650.

WGS 452 Feminism and Postcolonial Studies 3 Y

Double Numbered with: WGS 652

Introduction to postcolonial studies and its engagement with feminism. Focus on cross-cultural feminist analysis of colonialism, neo-colonialism, decolonization, orientalism, and racism/racialization. Emphasis on questions of representation, agency, and subjectivity. Additional work required of graduate students. PREREQ: WGS 101 OR 201 OR 301 OR 310 OR 410.

WGS 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies 3 Y

Crosslisted with: MES 453, QSX 453

This course maps women's rights movements, LGBTQ mobilizations, and minority activisms in the Middle East. It focuses on the centrality of gender and sexuality to the politics of every day life.

WGS 454 Family and Gender in Contemporary Italy 3

Crosslisted with: HST 454, SOC 454

Family structures and gender relations in Italy from the Unification to the present. Offered only in Florence.

WGS 455 Culture and AIDS 3 IR

Crosslisted with: ANT 455; Double Numbered with: WGS 655

Relationship between AIDS and cultures in which it spreads. Cultural practices and sexuality and social effects of widespread AIDS, including healthcare in Asia, Africa, Latin America, and USA. Additional work required of graduate students.

WGS 456 LGBT Studies in Sociology 3 IR  
Crosslisted with: QSX 456, SOC 456  
Recent sociological research in lesbian, gay, bisexual, and transgender studies addressing sexuality, identity, community, representation, politics, social change and their inter-relations.

WGS 457 Gender, Politics, Society in Europe (1400-1800) 3 IR  
Crosslisted with: HST 457, SOC 457  
Relationship between the sexes in politics, philosophy, literature, and art. Emergence of a dissident "voice" relative to gender identity and social role, with implications for race and religion. Offered only in Florence.

WGS 462 Culture and Reproductive Health and Medicine 3 IR  
Crosslisted with: ANT 462, HTW 462  
Cultural anthropological approaches to cross-cultural variations in reproductive practices (pregnancy, childbirth, infertility, etc.) Impact of globalization, biomedicalization, international development on reproduction and reproductive health. Medical anthropology and gender studies.

WGS 465 Beyond the Veil: Gender Politics in Islam 3 Y  
Crosslisted with: MES 465, REL 465, SAS 465  
Politics of gender, religious identities, and resistance in the Islamic world. Gender scripts in Qur'anic scripture and Shariah laws. Contemporary realities of Muslim women living in different parts of the world. Additional work required of graduate students.

WGS 472 Language, Culture, and Society 3 Y  
Crosslisted with: ANT 472, LIN 472; Double Numbered with: WGS 672  
Cross-cultural survey of the role of language in culture and society, including cognition and language usage along the dimensions of class, gender, race, ethnicity, and social status.

WGS 473 Women, Rap and Hip-Hop Feminism 3 IR  
Crosslisted with: HOM 473; Double Numbered with: WGS 673  
Links between feminism, rap music and hip-hop culture. We explore the work of actual women in hip-hop, images of women, and feminist critiques of the music and the culture. Additional work required of graduate students.

WGS 474 Culture and Folklore 3 IR  
Crosslisted with: ANT 474; Double Numbered with: WGS 674  
Ways in which folklore (oral and material traditions, including personal narratives), reflects key cultural ideas such as gender, ethnicity, and history. Analytical methods for examining folk traditions. Additional work required of graduate students.

WGS 475 Women, Myth and Nation in Latin American Literature 3  
Crosslisted with: LAS 475, SPA 475  
Myths about women and nation. Modern interpretations and reconstructions of these myths in contemporary literature by Latin American women writers. Literary texts with theories on myth. Representation and "real" constructions of feminine and national identities in different regions of Latin America.

WGS 479 Power, Conflict, Violence, and the Family 3 E  
Crosslisted with: CFS 479  
Introduction to power and conflict in intimate and familial relations. Neglect, abuse, molestation, rape, battering, and violence.

WGS 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

WGS 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

WGS 492 Work and Inequality 3 IR  
Crosslisted with: SOC 492  
Current and past issues in research and policy concerning inequalities associated with work. Social construction and structural arrangements of work in American society.

WGS 494 Music and Gender 3 E  
Crosslisted with: HOM 494  
The impact of gender ideology and behavior on the performing arts and the role of performance in maintaining and subverting gender identities and relations.

WGS 498 Senior Project in Women's & Gender Studies 3 S  
For senior women's and gender studies majors graduating with distinction. Individualized and small group mentoring and directed research culminating in an independent project. Permission of department.

WGS 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

WGS 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

WGS 512 African American Women's History 3 O  
Crosslisted with: AAS 512  
The intellectual, political, and social history of African American women from pre-colonial Africa to the re-emergence of black feminism in the late 20th-century United States.

WGS 513 Toni Morrison: Black Book Seminar 3 E  
Crosslisted with: AAS 513  
A multi-dimensional study of Morrison's bookwork: fiction, non-fiction, and scholarship. Involves conceptual frameworks and ideas that link this project with broader understandings and interpretations of Blacks in the world. A wide range of questions (i.e., aesthetics, feminisms, knowing-politics, language, race) derives from Morrison's literary witnessing of Black community life.

WGS 525 Economics and Gender 3 Y  
Crosslisted with: ECN 525  
Offered only in Strasbourg. European economy, with central focus on economic principles underlying decisions to create and extend scope of European Community and on economic policies EU has followed since creation.

WGS 553 Women and Social Change 3 E  
Crosslisted with: ANT 553  
Function of changes in women's roles in sociocultural urbanization, revolution, and modernization. Women in Third World countries compared to women in industrialized countries.

WGS 555 Food, Culture and Environment 3 Y

Crosslisted with: NSD 555

Understand the environment in which nutrition education and communication occur. The broader environment includes cultural diversity, the food system from farm to table, as well as functionality of food components.

WGS 576 Gender, Place, and Space 3 Y

Crosslisted with: GEO 576

Contemporary debates in feminist geography on the gendered construction of space and the spatial construction of gender.

## Writing Program

WRT 104 Introduction to College-Level Writing 3 IR

College-level reading and writing practices: learning to compose for college audiences, to read challenging texts actively, to make interpretations and claims, and to collaborate with others. Does not substitute for WRT 105.

WRT 105 Studio 1: Practices of Academic Writing 3 S

Study and practice of writing processes, including critical reading, collaboration, revision, editing, and the use of technologies. Focuses on the aims, strategies, and conventions of academic prose, especially analysis and argumentation.

WRT 109 Studio 1: Practices of Academic Writing (Honors) 3 Y

Intensive version of WRT 105 for students of demonstrated exceptional ability.

WRT 114 Writing Culture 3 Y

Nonacademic writing: creative nonfiction, memoir, the essay. Students write texts experimenting with style, genre, and subject; read contemporary nonfiction texts by varied authors; attend lectures/readings of visiting writers.

WRT 120 Writing Enrichment 1-3 S

Special instruction in writing, graded on pass/fail basis. Does not substitute for WRT 105 or 205. Permission of instructor. R

WRT 205 Studio 2: Critical Research and Writing 3 S

Study and practice of critical, research-based writing, including research methods, presentation genres, source evaluation, audience analysis, and library/online research. Students complete at least one sustained research project.  
PREREQ: CAS 100 OR WRT 105 OR 109 OR ENL 211.

WRT 207 Writing in the Workplace 3 IR  
Introduction to workplace writing genres.

Emphasis placed on understanding audience needs during the planning and revision process, as well as editing for clarity and impact. Provides students with useful tools for enhancing all workplace communications. This course is available only online.

WRT 209 Studio 2: Critical Research and Writing (Honors) 3 Y

Intensive version of WRT 205 for students of demonstrated exceptional ability.  
PREREQ: CAS 100 OR WRT 105 OR 109.

WRT 220 Writing Enrichment 1-3 S

Special instruction in writing, graded on a pass/fail basis. Does not substitute for WRT 105 or 205. Permission of instructor. R

WRT 255 Advanced Argumentative Writing 3 Y

Intensive practice in the analysis and writing of advanced arguments for a variety of settings: public writing, professional writing, and organizational writing.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 280 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

WRT 301 Advanced Writing Studio: Civic Writing 3 S

Practical skills necessary for effective civic or advocacy writing. Examines the nature of public(s) and applies theoretical understandings to practical communication scenarios. Junior standing.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 302 Advanced Writing Studio:

Digital Writing 3 Y

Writing in digital environments. May include document and web design, multimedia, digital video, web logs. Introduction to a range of issues, theories, and software applications relevant to such writing.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 303 Advanced Writing Studio:

Research and Writing 3 S

Sustained research and writing project in a student's field of study or area of interest. Analysis of the rhetorics and methodologies of research.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 307 Advanced Writing Studio:

Professional Writing 3 S

Professional communication through the study of audience, purpose, and ethics. Rhetorical problem-solving principles applied to diverse professional writing tasks and situations.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 308 Advanced Writing Studio: Style 3 Y

Study and experiment with contemporary writing styles, designs, and editing conventions. Practice writing in multiple genres for different audiences, purposes, and effects. Explore rhetorical, aesthetic, social, and political dimensions of style.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 320 Writing Enrichment 1-3 S

Special instruction in writing, graded on a pass/fail basis. Does not substitute for WRT 105 or 205. R

WRT 331 Peer Writing Consultant Practicum 3 Y

Introduction to theories and methods of writing consultation. Topics include: social dynamics, grammar, ESL, LD, argumentation, critical reading, writing process. Practices: observations, role playing, peer groups, one-on-one. Writing intensive.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 340 Advanced Editing Studio 3 Y

Students will produce INTERTEXT, an anthology of student writing in the Writing Program. This extensive editorial project will include: processing manuscripts, production of the anthology, marketing, and public relations tasks. Permission of instructor.  
PREREQ: WRT 205 OR 209 OR ENL 213. R

WRT 401 Advanced Workshop in Technical Communications: Design Methodology 2 Y

Advanced technical communications for pre-professional computer and electrical engineers. Focuses on the communication that engineering design teams perform. Emphasis on communication embedded in system analysis and design processes.  
PREREQ: (CAS 100 OR WRT 105 OR 109 OR ENL 211) AND (WRT 205 OR 209 OR ENL 213).

WRT 402 Advanced workshop in Technical Communication: Prototyping and Construction 1 Y  
Advanced technical communications for pre-professional computer and electrical engineers. Focuses on a range of communication activities embedded in the development, testing, and deployment phases of engineering projects.  
PREREQ: (CAS 100 OR WRT 105 OR 109 OR ENL 211) AND (WRT 205 OR 209 OR ENL 213) AND WRT 401.

WRT 413 Rhetoric and Ethics 3 S  
Introduces historical conversations concerning rhetoric's ethical responsibilities and explores complications that emerge as assumed historic connections between language and truth, justice, community, and personal character are deployed in various social, political, cultural, national, and transnational contexts.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 417 Technical Documentation & Usability 3 IR  
Double Numbered with: WRT 617  
Builds on technical writing fundamentals, focusing on practical techniques and extensive practice designing and writing technical product/process documents. Includes audience assessment, task analyses, use-case scenarios, usability testing, and end-use documentation. Additional work required of graduate students.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 419 Advanced Technical Writing Workshop 3 IR  
Double Numbered with: WRT 619  
Intensive experience in writing technical texts. Additional work required of graduate students.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 422 Studies in Creative Nonfiction 3 Y  
Particular topics in the analysis and practice of creative nonfiction. Attention to cultural contexts and authorship. Possible genres include memoir, travel writing, nature writing, experimental or hybrid writing, and the personal essay.  
PREREQ: WRT 205 OR 209 OR ENL 213.  
R1, 6 credits maximum

WRT 423 African American Rhetoric 3 IR  
Examines the debates, strategies, styles, and forms of persuasive practices employed by African Americans with each other, and in dialogue within the United States.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 424 Studies in Writing, Rhetoric, Identity 3 Y  
Particular topics in the relations among identity, culture, and power in writing and rhetoric. How writing identities emerge in relation to cultural constructions of race, nationality, ethnicity, gender, sexuality, aging, disability.  
PREREQ: WRT 205 OR 209 OR ENL 213.  
R1, 6 credits maximum

WRT 426 Studies in Writing, Rhetoric, and Information Technology 3 Y  
Particular topics in the study of technology-mediated communication, emphasizing digital discourses and culture. Includes practice and analysis of new genres and rhetorics with attention to their social and political meaning, contexts, and use.  
PREREQ: WRT 205 OR 209 OR ENL 213.  
R1, 6 credits maximum

WRT 427 Emerging Technologies in Professional & Technical Writing 3 IR  
Double Numbered with: WRT 627  
An advanced technical writing course focusing on project management and writing that development teams perform regularly, with emphasis on digital writing, site architecture, and assessment/implementation of emerging technologies. Additional work required of graduate students.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 428 Studies in Composition, Rhetoric and Literacy 3 Y  
Particular topics in the theories and studies of writing, including style, community literacy, authorship, and rhetorical genres. Places writing in historical and cultural contexts.  
PREREQ: WRT 205 OR 209 OR ENL 213.  
R1, 6 credits maximum

WRT 430 Advanced Experience in Writing Consultation 3 Y  
Continuation of consultant experience of WRT 331. Work independently consulting in their majors or the Writing Program.  
PREREQ: (WRT 105 OR 109) AND (WRT 205 OR 209) AND WRT 331. R1, 6 credits maximum

WRT 436 Feminist Rhetoric(s) 3 Y  
Crosslisted with: CRS 436, WGS 436  
Feminist rhetoric from both a historical and global context, utilizing both primary and secondary readings in order to gain a sense of breadth and depth in the field of feminist rhetoric. Additional work required of graduate students.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 437 Rhetoric and Information Design 3 IR  
Double Numbered with: WRT 637  
Focuses on visual presentation of scientific and technical information, with emphasis on rhetorical approaches, design technologies, and digital presentation of finished work. Additional work required of graduate students.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 438 Advanced Creative Nonfiction 3 IR  
Advanced theory and practice of writing interdisciplinary nonfiction in historical, political, cultural, and ethical contexts. Produces creative nonfiction as modes of intellectual inquiry and as scholarship within academic disciplines. Additional work required of graduate students.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 440 Studies in the Politics of Language and Writing 3 Y  
Language and writing as sites of political contestation in local, national, and global contexts. Explores policy initiatives, theoretical debates, and effects of politics and history on language and writing in communities.  
PREREQ: WRT 205 OR 209 OR ENL 213.  
R1, 6 credits maximum

WRT 447 Professional & Technical Writing in Global Contexts 3 IR  
Double Numbered with: WRT 647  
Complexities arising in writing technical documents for a wide range of audiences, including other cultures and workplaces both domestically and internationally. Addresses ways that systems of knowledge, interfaces, design processes, and instructional mechanisms affect users.  
PREREQ: WRT 205 OR 209 OR ENL 213.

WRT 470 Experience Credit 1-6 IR  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing.  
PREREQ: WRT 205 OR 209 OR ENL 213. R

WRT 495 Senior Research Seminar I 1 Y  
Workshop provides students with collaborative environment to develop a proposal for a major project over an extended period. Typical activities: discussing project foci, drafting and workshopping, project proposals, conducting research, discussing audience considerations, making periodic presentations. Department consent.

WRT 496 Senior Research Seminar II 2 Y  
Workshop provides students with  
collaborative environment to develop a major  
project over an extended period. Typical  
activities: discussing project foci, drafting and  
workshopping project proposals, conducting  
research, discussing audience considerations,  
making periodic presentations.  
PREREQ: WRT 495.

WRT 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project  
under the supervision of a faculty member. R2,  
3 credits maximum

## Faculty

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Ahmed E. Abdel-Meguid, Assistant Professor

Ph.D. Emory University, 2011

Islamic theology and philosophy; German transcendental philosophy, phenomenology, and hermeneutics.

Omanii Abdullah, Adjunct Instructor

M.A., University of Tennessee-Knoxville, 1974

Poetry

Meera Adya, Director of Research, Burton Blatt Institute, College of Law

Ph.D., University of Nebraska-Lincoln, 2004;

J.D., University of Nebraska-Lincoln, 2002

Affiliated Faculty, Psychology; Law-psychology, decision-making, employment discrimination, genetic discrimination, disability

Lois Agnew, Associate Professor, Writing Program

Ph.D., Texas Christian University, 1999

History of rhetoric and composition studies, classical and British rhetorical theories, ethics and public discourse, stylistics, rhetoric and philosophy, rhetoric, composition

R. Craig Albertson, Assistant Professor, Biology

Ph.D., University of New Hampshire, 2002

Developmental Biology, quantitative genetics, comparative vertebrate morphology

Seth Aldrich, Adjunct Assistant Professor

Ph.D., Syracuse University, 1990

Christine Allen, Adjunct Assistant Professor

Ph.D., Pennsylvania State University, 1987

David M. Althoff, Assistant Professor

Ph.D., Washington State University, 1998

Species interactions, molecular ecology, insect community ecology

Ran Dani Anbar, Adjunct Assistant Professor

M.D., University of Chicago, 1983

Douglas R. Anderson, Professor Emeritus

Ph.D., Yale University, 1966

Algebraic topology

Kevin Antshel, Associate Professor and Director of Clinical Training

Ph.D., University of Kentucky

Developmental psychopathology with particular emphasis on attention deficit / hyperactivity disorder (ADHD) and autism spectrum disorders (ASD). Cognitive / behavioral interventions designed to improve functioning in these populations.

Cristian Armendariz-Picon, Associate Professor

Ph.D., Ludwig-Maximilians Universitat,

Munich (Germany), 2001 Cosmology, relativity, elementary particles, theory

Philip P. Arnold, Associate Professor

Ph.D., University of Chicago, 1992

History of Religions, Indigenous Traditions of the Americas

Marina Artuso, Professor

Ph.D., Northwestern University, 1986

Elementary particles, experiment

Carol Babiracki, Associate Professor

Ph.D., University of Illinois, 1991

Art and Music Histories: Ethnomusicology, South Asian music and dance, ethnic and immigrant music and dance in the U.S., music of the Middle East

A. Balachandran, Joel Dorman Steele

Professor of Physics

Ph.D., Madras University, 1962

Elementary particle theory

Suzanne L. Baldwin, Professor

Ph.D., State University of New York at Albany, 1988

Noble gas thermochronology, P-T-t evolution of crustal terranes, plate boundary processes in the Southwest Pacific, continental extensional tectonics

Stefan Ballmer, Assistant Professor

Ph.D. MIT, 2006

Theoretical Astrophysics, gravitational Waves

Uday Banerjee, Professor

Ph.D., University of Maryland, 1985

Numerical solutions of differential equations

Crystal Bartolovich, Associate Professor

Ph.D., Emory University, 1993

Marxism, early modern studies, cultural studies

Kenneth Baynes, Professor, Philosophy and Political Science

Ph.D., Boston University, 1987

Social and political philosophy, critical theory, continental philosophy

Dorri Beam, Associate Professor

Ph.D., University of Virginia, 2001

Nineteenth-century American literature and culture, gender and sexuality studies, race and nineteenth-century American literature.

Frederick C. Beiser, Professor

D.Phil., Oxford University (United Kingdom), 1980

Early modern philosophy, Kant, German idealism, 19th Century Philosophy

John M. Belote, Professor

Ph.D., University of North Carolina, Chapel Hill, 1979

Developmental genetics, genetic and molecular analysis of sex determination in *Drosophila*

Patrick W. Berry, Assistant Professor, Writing Program

Ph.D., University of Illinois at Urbana-Champaign, 2011

Literacy Studies; Qualitative Research Methods; Computers and Writing; Teacher Education; Cultural Historic Activity Theory; Higher Education in Prison; Professional Writing and Publishing; and Histories of Rhetoric & Composition.

Tej K. Bhatia, Professor

Ph.D., University of Illinois, 1978

Hindi, linguistics; Indic languages, literature, and linguistics

Himika Bhattacharya, Assistant Professor

Ph.D., University of Illinois at Urbana

Champaign, 2008

Feminist Theory, Third World and Transnational Feminisms, Feminist Ethnography

Marion E. Bickford, Professor Emeritus

Ph.D., University of Illinois, 1960

Petrologist and isotope geochemist

Benita A. Blachman, Trustee Professor;

Coordinator, Learning Disabilities

Ph.D., University of Connecticut, 1981

Educational psychology, reading and other learning disabilities, teacher preparation

Marlene F. Blumin, Associate Professor;

Director, Study Skills Program

Ph.D., Cornell University, 1988

Curriculum and instruction, college

reading/study skills

Steven Blusk, Associate Professor

Ph.D., University of Pittsburgh, 1995

Experimental high-energy physics

Philip N. Borer, Professor

Ph.D., University of California, Berkeley, 1972

Biophysical chemistry, nucleic acid chemistry, nuclear magnetic resonance analysis of RNA, DNA and peptides

Molly Bourne, Adjunct Faculty, Florence Harvard University, Ph.D.,

Specialist in Gonzaga court circa 1500; artistic patronage, villa design, cartography, and the domestic interior in Renaissance Mantua

- Mark Bowick, Professor  
Ph.D., California Institute of Technology, 1983  
Condensed matter theory
- Benjamin Bradley, Associate Professor  
Ph.D., University of Massachusetts, Amherst, 1999  
Ethical theory, environmental ethics, philosophy of death
- Mark S. Braiman, Professor  
Ph.D., University of California, Berkeley  
Solar photoreduction of carbon dioxide for carbon sequestration and energy storage; membrane protein expression, purification, and crystallization; time-resolved vibrational spectroscopy applied to photochemical systems.
- Zachary J. Braiterman, Professor  
Ph.D., Stanford University, 1995  
Modern Jewish thought and culture specializing in 20th-century thinkers, religion, art
- Susan Branson, Associate Professor;  
Professor, Director of American Studies  
Ph.D., Northern Illinois University, 1992  
Early American History
- Collin G. Brooke, Associate Professor,  
Writing Program  
Ph.D., University of Texas at Arlington, 1997  
Rhetorics of technology, histories and theories of rhetoric, critical theory
- Amanda Brown, Associate Professor  
Ph.D., Boston University, 2007  
Languages, literatures, and Linguistics, applied linguistics
- Danielle Brown, Assistant Professor  
Ph.D., New York University, 2009  
Caribbean; Latin American music
- Duncan Brown, Associate Professor  
Ph.D., University of Wisconsin-Milwaukee, 2004  
Theoretical astrophysics, relativity
- Erella Brown, Instructor  
Ph.D., Cornell University, 1989  
Modern and postmodern Jewish, Israeli, European, and American prose fiction, drama, and contemporary literary theory.
- Stuart Scott Brown, Professor
- Kevin Browne, Assistant Professor, Writing Program  
Ph.D., Pennsylvania State University, 2009  
Contemporary rhetorical theory, specializing in ethnic rhetoric, vernacular rhetoric, and rhetoric(s) of the Caribbean and the African Diaspora.
- Joan Bryant, Associate Professor  
Ph.D., Yale University, 1996  
American religious history
- Gail Bulman, Associate Professor  
Ph.D., Syracuse University, 1996  
Spanish, 20th-century Latin American literature
- Patricia Burak,
- Michael Burkard, Associate Professor  
M.F.A., University of Iowa, 1973  
Creative writing, poetry
- Virginia Burrus, W. Earl Ledden Professor  
Ph.D., Graduate Theological Union, 1991  
Ancient Christianity including: gender, sexuality, the body; martyrdom and asceticism; ancient novels and hagiography; constructions of orthodoxy and heresy; histories of theology and historical theologies
- Dympna Callaghan, Dean's Professor in the Humanities  
Ph.D., Sussex University, 1986  
Feminism, early modern culture, and theory
- Horace Campbell, Professor, African American Studies and Political Science  
Ph.D., Sussex University, 1979  
Comparative politics of Africa and the Caribbean, armaments culture, political economy
- Kate B. Carey, Professor  
Ph.D., Vanderbilt University, 1985  
Substance abuse, stress and coping processes, mentally ill chemical abusers
- Michael P. Carey, Professor  
Ph.D., Vanderbilt University, 1986  
Sexual dysfunctions, health psychology, HIV prevention
- Robert Carey, Adjunct Associate Professor  
Ph.D., University of Chicago, 1966
- Jeffrey S. Carnes, Associate Professor  
Ph.D., University of North Carolina, 1986  
Greek poetry, mythology and Augustan Rome
- Linda Carty, Associate Professor  
Ph.D., University of Toronto (Canada), 1989  
Race, class, and gender studies; comparative sociology; international development post-colonial discourse; Third World feminisms
- Carlos Castaneda, Assistant Professor  
Ph.D., Johns Hopkins University, 2009  
Biophysics, protein structure, dynamics and function, posttranslational modifications, chemical biology, structural biology, nuclear magnetic resonance of proteins and protein complexes
- Luis Castañeda, Assistant Professor of Art History  
Ph.D., Institute of Fine Arts, New York University, 2011  
Latin American Art, Art & Design in the Americas
- Theo Cateforis, Associate Professor  
Ph.D., State University of New York at Stony American music, 20th-century music, popular music, jazz
- Simon Catterall, Professor  
Ph.D., Oxford University (United Kingdom), 1988  
Elementary particles, theory, computational physics
- Joseph Chaiken, Professor  
Ph.D., University of Illinois, 1982  
Physical chemistry, inter-/intramolecular energy transfer, molecular beam/laser spectroscopy, laser chemistry, fractals, coalescence growth systems, biomedical spectroscopy
- Arindam Chakraborty, Assistant Professor  
Ph.D., University of Minnesota, 2005  
Theoretical and computational investigation of energy conversion processes in quantum dots and solar cells; electrochemical processes on metal surfaces; development of quantum mechanical methods for nuclear and electronic dynamics; applications to materials and biomolecules
- Samuel H.P. Chan, Professor  
Ph.D., University of Rochester, 1970  
Mitochondrial membrane complexes, bioenergetics in normal and tumor tissues
- Pinyuen Chen, Professor  
Ph.D., University of California, Santa Barbara, 1982  
Statistics
- John D. Chisholm, Associate Professor  
Ph.D., University of California, Irvine, 2000  
Organic chemistry, medicinal chemistry, synthesis, catalysis.
- Daniel Clark, Assistant Professor  
Ph.D., SUNY Buffalo, 2008  
Organic and organometallic chemistry; catalytic reaction development; natural product synthesis
- Steven Cohan, Professor  
Ph.D., University of California, Los Angeles, 1974  
Film studies, narrative theory, gender studies

Heather Coleman, Assistant Professor  
PhD, University of British Columbia, 2008  
Genetic and environmental control of cell wall  
formation, biotechnology, molecular farming,  
functional genomics

Dan Coman, Professor  
Ph.D., University of Michigan, 1997  
Several complex variables

Catherine A. Cornwell, Associate  
Professor  
Ph.D., Massachusetts Institute of Technology,  
1975  
Neurobiology of learning and memory

J. Theodore Cox, Professor  
Ph.D., Cornell University, 1976  
Probability

Amy H. Criss, Assistant Professor  
Ph.D., Indiana University, 2004  
Human memory; mathematical modeling

Pedro Cuperman, Professor  
Licenciado, University of Buenos Aires  
(Argentina), 1966  
Spanish, Latin American literature, critical  
theory, semiotics

James C. Dabrowiak, Professor  
Ph.D., Western Michigan University, 1970  
Metallo-drugs, metals in medicine, drug  
delivery, drug-nucleic acid interactions

Jeanne Denti, Visiting Assistant Professor of  
Psychology  
Ph.D., Syracuse University, 1989  
Eating disorders, abnormal and clinical  
psychology.

Manan Desai, Assistant Professor, English  
Ph.D., University of Michigan, 2011  
20th Century American literature, Asian  
American literature, African American  
literature, South Asian colonial and  
postcolonial literature.

Steven Diaz, Professor  
Ph.D., Brown University, 1982  
Algebraic geometry

Pedro DiPietro, Assistant Professor  
Ph.D. in Philosophy, Binghamton University,  
SUNY, 2012  
Areas of Study: Women's, Gender, and Queer  
Studies; Latina/o Studies; Feminist Philosophy;  
Philosophy of Race, Gender, and Sex; Women  
of Color Epistemologies Areas of  
Concentration: Comparative Ethnic Studies;  
Critical Theory; Andean and Mesoamerican  
Cosmologies

Joseph W. Ditre, Assistant Professor of  
Psychology  
Ph.D., University of South Florida  
Health Psychology, Behavioral Medicine,  
Addiction/Addictive Behaviors and Chronic  
Physical and Mental Health Disorders

David Kwame Dixon, Assistant Professor  
Ph.D., Clark-Atlanta University, 1996  
International relations/comparative politics,  
political economy and American government

Laurinda Dixon, Professor  
Ph.D., Boston University, 1980  
Northern Renaissance painting, relationships  
between art and science

Helen M. Doerr, Laura J. and L. Douglas  
Meredith Professor  
Ph.D., Cornell University, 1994  
Secondary mathematics education, teacher and  
student learning, mathematical modeling, and  
mathematical communication.

Karen Doherty, Professor  
Ph.D., University of Wisconsin-Madison,  
1994  
Audiology, psychoacoustics, hearing aids,  
speech perception

Steve Dorus, Associate Professor  
Ph.D., The University of Chicago, 2004  
Evolutionary genetics and genomics of  
reproductive systems

Sharon Dotger, Assistant Professor  
Ph.D., North Carolina State University, 2006  
Science teacher education, inclusive science  
education

Janice Dowell, Associate Professor of  
Philosophy  
Ph.D., University of Pittsburg, 2002  
Philosophy of language, metaphysics,  
philosophy of mind, metaethics

Robert P. Doyle, Professor  
Ph.D., University of Dublin, Trinity College,  
2002, Anderson Foundation Fellow, Yale  
University, 2004  
Peptide conjugate chemistry, biochemistry,  
oral drug development

Marvin Druger, Laura J. and L. Douglas  
Meredith Professor Emeritus  
Ph.D., Columbia University, 1961  
Science teacher education, general biology  
instruction, evolutionary genetics

Kishi Animashaun Ducre, Assistant  
Professor  
Ph.D., University of Michigan, 2005  
Environmental justice

Jerome B. Dusek, Professor  
Ph.D., University of Illinois, 1969  
Self-concept and identity development in  
adolescence, sex roles, coping with stress

Collette P. Eccleston, Assistant Professor  
Ph.D., University of California, Santa Barbara,  
2005  
Stigma, prejudice, and discrimination;  
motivation; coping; intergroup relations

Tanya L. Eckert, Associate Professor;  
Director, Graduate Training Program in  
School Psychology  
Ph.D., Lehigh University, 1996  
Assessment of academic and behavioral  
problems, school-based interventions,  
acceptability of assessment procedures

Susan Edmunds, Professor  
Ph.D., Yale University, 1991  
Twentieth-century American literature,  
modernism, African American literature,  
theories of the body

Kevan Edwards, Assistant Professor  
Ph.D., Rutgers University, 2006  
Philosophy of mind, philosophy of language,  
cognitive science

Mary Louise Edwards, Professor  
Ph.D., Stanford University, 1979  
Phonetics, phonology, articulation,  
phonological development and disorders

Scott E. Erdman, Associate Professor  
Ph.D., University of California, Davis, 1994  
Regulation of cell differentiation

Kathryn Everly, Associate Professor  
Ph.D., University of Texas, 2000  
Contemporary Peninsular Spanish literature,  
Catalan literature and women writers

Craig K. Ewart, Professor  
Ph.D., Stanford University, 1978  
Health psychology, behavioral medicine,  
psychophysiology

Carol Fadda-Conrey, Associate Professor,  
English  
Ph.D., Purdue University, 2006  
U.S. ethnic literatures, Arab American studies.

JiJi Fan, Assistant Professor  
Ph.D., Yale University, 2009  
Particle phenomenology, supersymmetry

Stephanie A. Fetta, Assistant Professor  
Ph.D., University of California, Irvine, 2008  
Chicana/o and Latina/o literatures from a  
hemispheric perspective

Gareth J. Fisher, Associate Professor  
Ph.D., University of Virginia, 2006  
Buddhism, Chinese Buddhism, contemporary  
religion, globalization

- Paul G. Fitzgerald, Professor, Earth Sciences  
Ph.D., University of Melbourne (Australia), 1988  
Low temperature thermochronology (fission track, U-Th/He), tectonics, landscape evolution of Antarctica
- Arthur Flowers, Associate Professor  
B.A., City University of New York, 1979  
Creative writing, fiction
- Thomas P. Fondy, Professor  
Ph.D., Duquesne University, 1961  
Cancer biology and cancer chemotherapy, drug resistance and host immune response in cancer, liposomal drug formulations in experimental cancer treatment, animal models in cancer research
- Chris Forster, Assistant Professor  
Ph.D., University of Virginia, 2011  
Modernism, British twentieth century literature and culture, digital humanities
- Martin B. Forstner, Assistant Professor  
Ph.D. University of Texas, Austin, 2003  
Biophysics, experimental soft condensed matter, biophotonics
- Kenneth Foster, Professor  
Ph.D., California Institute of Technology, 1972  
Biophysics of rhodopsin-based photoreceptors
- Rodney Foster, Assistant Professor  
Ph.D., Syracuse University, 1998  
Eighteenth-century music
- Wayne Franits, Professor  
Ph.D., Institute of Fine Arts, New York University, 1987  
Baroque art, 17th-century Dutch painting
- Douglas A. Frank, Professor  
Ph.D., Syracuse University, 1990  
Plant and ecosystem ecology, emphasizing the effects of ungulates on grasslands
- Jason D. Fridley, Associate Professor  
Ph.D., University of North Carolina, Chapel Hill, 2002  
Patterns of biodiversity, functional significance of biodiversity for ecological systems
- Ken Frieden, B.G. Rudolph Professor  
Ph.D., Yale University, 1984  
Comparative literature, Hebrew and Yiddish fiction; European and American Judaic traditions; psychoanalysis and literary theory
- Jannice Friedman, Assistant Professor  
Ph.D., University of Toronto, 2009  
Plant evolutionary biology, ecological genetics, evolution of plant reproductive systems
- Kim Frost, Assistant Professor of Philosophy  
Ph.D., University of Pittsburgh, 2012  
Philosophy of mind, philosophy of action
- André Gallois, Professor  
B. Phil., University of Oxford, 1971  
Epistemology, metaphysics, philosophy of mind, ethics
- Myrna Garcia-Calderon, Associate Professor  
Ph.D., University of California, Berkeley, 1989  
Caribbean literature
- Anthony Garza, Associate Professor  
Ph.D., Texas A and M University, 1995  
Microbiology, gene expression in development
- Les A. Gellis, Visiting Assistant Professor of Psychology  
Ph.D., University of Memphis, 2006  
Cognitive and behavioral elements that contribute to stress, insomnia, and other sleep disorders. Currently he is testing and designing techniques to treat insomnia while understanding the causes and consequences of sleep problems.
- Stefano Giannini, Associate Professor  
Ph.D., Johns Hopkins University, 2002  
Italian
- Mark A. Ginsberg, Adjunct Associate Professor  
Ph.D., Southern Illinois University, 1975
- Hope Glidden, Professor  
Ph.D., Columbia University, 1976  
French
- Ann Grodzins Gold, The Thomas J. Watson Professor of Religion  
Ph.D., University of Chicago, 1984  
Teaching and research on religion in South Asia, popular Hinduism, women's expressive traditions, religions and environment, folklore, oral history
- Paul Gold, Distinguished Professor of Biology
- Mike Goode, Associate Professor  
Ph.D., University of Chicago, 2001  
British Romantic and early Victorian literature and culture, gender studies
- Jerry Goodisman, Professor  
Ph.D., Harvard University, 1963  
Physical chemistry, sedimentation and agglomeration, platinum anticancer drugs, light scattering from skin.
- Michael Gordon, Adjunct Associate Professor  
Ph.D., Ohio State University, 1977
- Judith Gorovitz, Adjunct Assistant Professor  
Ph.D., Case Western Reserve University, 1973
- Samuel Gorovitz, Professor  
Ph.D., Stanford University, 1963  
Ethics, public policy, decision making
- Richard M. Gramzow,  
Ph.D. University of North Carolina, Chapel Hill, 1997  
The self, groups, psychophysiology
- Jack E. Graver, Professor  
Ph.D., Indiana University, 1966  
Combinatorics and graph theory
- David Greenberg, Adjunct Associate Professor  
Ph.D., Indiana University, 1966  
Combinatorics and graph theory
- Gerald R. Greenberg, Associate Professor, Associate Dean  
Ph.D., Cornell University, 1985  
Russian, Slavic linguistics
- Roger P. Greenberg, Adjunct Professor  
Ph.D., Syracuse University, 1968
- Philip S. Griffin, Professor  
Ph.D., University of Minnesota, 1982  
Probability.
- Erika Haber, Associate Professor  
Ph.D., University of Michigan, 1993  
Russian language and literatures
- Rania Habib, Assistant Professor  
Ph.D., University of Florida, 2008  
Languages, Literatures and Linguistics; Linguistics, Arabic, Middle Eastern Studies
- F. Reed Hainsworth, Professor  
Ph.D., University of Pennsylvania, 1968  
Physiological ecology and comparative physiology, emphasizing energetic relationships in small mammals and birds
- Sarah Hall, Assistant Professor
- Roger Hallas, Associate Professor  
Ph.D., New York University, 2002  
Cinema studies

- M. Gail Hamner, Professor  
Ph.D., Duke University, 1997  
Pragmatism, critical theory, women's studies,  
film, and popular culture
- Chris Hanson, Assistant Professor  
Ph.D., University of Southern California,  
2010  
New media screen studies.
- John F. Harkulich, Adjunct Assistant  
Professor  
Ph.D., Florida State University, 1979
- Brooks Haxton, Professor  
M.A., Syracuse University, 1981  
Creative writing, poetry
- Daniel W. Hayes, Assistant Professor
- Mark Heller, Professor  
Ph.D., Syracuse University, 1984  
Metaphysics, epistemology
- H. Ernest Hemphill, Associate Professor  
Ph.D., Cornell University, 1967  
Microbiology, microbial genetics
- James A. Hewett, Associate Professor  
Ph.D., Michigan State University, 1991  
central nervous system, inflammation,  
arachidonic acid metabolism, therapeutics,  
gene expression, cell culture.
- Sandra J. Hewett, Beverly Petterson Bishop  
Professor of Neuroscience  
Ph.D., Michigan State University, 1992  
Mechanisms underlying cell death in the  
central nervous system: the interplay between  
excitotoxicity and inflammation
- Margaret Himley, Professor  
Ph.D., University of Illinois, Chicago, 1983  
Composition and critical pedagogy, curriculum  
design, LGBT studies and queer rhetoric,  
phenomenological theories of children and  
childhood
- Joseph T. Himmelsbach, Adjunct Associate  
Professor  
Ph.D., Syracuse University, 1972
- Gregory D. Hoke, Assistant Professor  
Ph.D., Cornell University, 2006  
Geomorphology, sedimentary geology,  
tectonics
- Richard Holmes, Research Assistant  
Professor  
Ph.D., University of Maryland, 1985  
Elementary particles, experiment
- Jeehee Hong, Assistant Professor  
Ph.D. University of Chicago, 2008  
Art of China; Arts of East Asia
- Peter D. Horn, Assistant Professor  
Ph.D., Rice University, 2009  
Knot concordance and Heegaard Floer  
homology
- James Hougland, Assistant Professor  
Ph.D., University of Chicago, 2005  
Bioorganic chemistry; biochemistry;  
enzymology; substrate selection and molecular  
recognition in protein posttranslational  
modification
- Marc W. Howard, Associate Professor  
Ph.D., University of Chicago, 1999  
Human memory, cognitive neuroscience,  
mathematical and computational modeling
- William J. Hoyer, Professor  
Ph.D., West Virginia University, 1972  
Life-span developmental psychology, learning  
and memory, cognitive aging, and aging
- Wu-Teh Hsiang, Emeritus  
Ph.D., University of Pennsylvania, 1977  
Differential geometry and differential  
equations
- Jay Hubisz, Associate Professor  
Ph.D. Cornell University, 2006  
Theoretical particle physics, cosmology
- Bruce S. Hudson, Professor  
Ph.D., Harvard University, 1972  
Molecular spectroscopy and biophysical  
chemistry; inelastic neutron scattering studies  
of molecular crystals, especially those with  
unusual hydrogen bonding and comparison  
with theory; biophysical applications of  
fluorescence
- Marsha A. Hunt, Part-time Instructor  
J.D., Syracuse University, 1987
- Sydney Hutchinson, Assistant Professor  
Ph.D. New York University, 2008  
Ethnomusicology
- Richard Ingersoll, Ph.D.  
Ph.D., University of California; Berkeley  
16th century Italian architecture and survey of  
Italian urbanism.
- Linda C. Ivany, Professor  
Ph.D., Harvard University, 1997  
Evolutionary paleoecology, paleontology,  
paleoclimatology
- Tadeusz Iwaniec, John Raymond French  
Distinguished Professor of Mathematics at  
Syracuse University and FiDiPro (Finland  
Distinguished Professor) at the University of  
Helsinki.  
Ph.D., University of Warsaw, 1975  
Geometric Function Theory, Nonlinear  
Analyses and Partial Differential Equations  
with applications to Elasticity Theory and  
Material Sciences.
- Mary M. Jackowski, Adjunct Assistant  
Professor  
Ph.D., State University of New York Health  
Science Center, 1979
- Mary E. Jeannotte, Adjunct Assistant  
Professor  
Ph.D., State University of New York at  
Buffalo, 1993
- Annette Jenner, Assistant Professor  
Ph.D., Harvard University, 1998  
Neuroscience, neurobiology of language
- Jean Jonassaint, Associate Professor  
Ph.D., Universite de Montreal (Canada), 1990  
Francophone studies, Haitian novel
- Harold Jones, Emeritus  
Ph.D., Princeton University, 1968  
Spanish golden age literature
- Randall S. Jorgenson, Associate Professor  
Ph.D., University of Kansas, 1983  
Health psychology, effects of personality  
coping, stress and heredity on cardiovascular  
reactivity
- Christopher Junium, Assistant Professor,  
Earth Sciences  
Ph.D., Penn State University, 2010  
Paleoclimatology
- Tara Kahan, Assistant Professor  
Ph.D., University of Toronto, 2010  
Physical chemistry, analytical chemistry,  
atmospheric and environmental chemistry,  
spectroscopy, developing a molecular-level  
understanding of physical and chemical  
processes occurring at environmental surfaces
- Bette Kahler, Instructor  
M.Mus., Syracuse University, 1971  
Organ performance and instruction, music  
history and theory
- Michael L. Kalish, Professor  
Ph.D. University of California at San Diego,  
1993  
Cognitive mechanisms responsible for the  
nature of human learning and memory, with a  
particular focus on categorization and  
dimensional attention.

- James Kallmerten, Professor, Interim Chair  
Ph.D., Brown University, 1979  
Organic chemistry, organic synthesis,  
emphasizing methods and strategies for the  
preparation of biologically active natural  
products and electro-optical materials
- Mary Karr, Jesse Truesdell Peck Professor of  
English Literature  
M.F.A., Goddard College, 1980  
Creative writing, poetry
- Jeffrey A. Karson, Professor, Earth Sciences  
Ph.D., State University of New York at  
Albany, 1977  
Structural geology and tectonics
- Tazim R. Kassam, Associate Professor  
Ph.D., McGill University, 1993  
History of religions, specializing in Islamic  
traditions and religions of South Asia
- Christopher Kennedy, Associate Professor  
M.F.A., Syracuse University, 1988  
Creative writing, poetry
- Krista Kennedy, Assistant Professor,  
Writing Program  
Ph.D. University of Minnesota Twin Cities,  
2009  
Digital Rhetorics, Intellectual Property and  
Authorship, Textual Materiality, Technical  
and Professional Communication
- Marilyn S. Kerr, Assistant Professor  
Ph.D., Duke University, 1966  
Developmental biology
- Hyune-Ju Kim, Professor  
Ph.D., Stanford University, 1988  
Statistics
- Claudia Klaver, Associate Professor  
Ph.D., Johns Hopkins University, 1995  
Nineteenth-century British literature and  
culture, feminist theory, women's studies,  
gender studies, and imperialism
- Mark Kleiner, Professor  
Ph.D., Kiev (USSR) State University, 1972  
Representations of finite dimensional algebras
- Ivan V. Korendovych, Assistant Professor  
Ph.D., Tufts University, 2006  
Bioinorganic chemistry, biophysics, inorganic  
chemistry, chemical biology
- Jaklin Kornfilt, Professor  
Ph.D., Harvard University, 1984  
Syntactic theory, typology, German syntax,  
Turkish and Turkic linguistics
- Donna Korol, Associate Professor
- Timothy M. Korter, Professor  
Ph.D., University of Pittsburgh, 2001  
Laser spectroscopy and computational  
chemistry
- Leonid Kovalev, Assistant Professor  
Ph.D. Washington University, 2005  
geometric function theory
- Thomas J. Krisher, Adjunct Assistant  
Professor  
Psy.D., Hahnemann University, 1986
- Robert Kuehnel, Adjunct Assistant  
Professor  
Ph.D., University of Maine, 1988
- Matthew LaHaye, Assistant Professor  
Ph.D. University of Maryland, College Park,  
2005  
Experimental condensed matter physics
- John Laiho, Assistant Professor, Physics  
Ph.D., Princeton University, 2004  
Lattice QCD, Flavor Physics & CP Violation,  
Chiral Perturbation Theory, Lattice Gravity
- Gregg Lambert, Associate Professor  
Ph.D., University of California at Irvine,  
1995  
Comparative literature and theory
- George M. Langford, Professor  
Ph.D., Illinois Institute of Technology, 1971  
Cell and molecular biology of the actin  
cytoskeleton, axonal transport in nerve cells
- Larry J. Lantinga, Adjunct Associate  
Professor  
Ph.D., University of Nebraska, 1973
- Loredana Lanzani, Professor  
Ph.D. Purdue University; 1997  
Harmonic analysis, PDEs and several complex  
variables
- Laura K. Lautz, Associate Professor  
Ph.D., Syracuse University, 2005  
Hydrology, hydrogeology
- Meera Lee, Assistant Professor  
Ph.D., American Studies, Dankook University,  
2005  
Korean literature and films, Asian  
American literature and media. Postcolonial  
studies.
- Graham J. Leuschke, Professor  
Ph.D., University of Nebraska, 2000  
Algebra, commutative algebra
- Lawrence J. Lewandowski, Professor  
Ph.D., University of Michigan, 1978  
School psychology, exceptional children,  
neuropsychology
- Katharine Lewis, Associate Professor,  
Biology  
Ph.D. University College, London 1998
- John A. Lindberg Jr., Professor Emeritus  
Ph.D., University of Minnesota, 1960  
Banach algebras, Banach spaces
- Carol Lipson, Professor Emeritus  
Ph.D., University of California, Los Angeles,  
1971  
Rhetoric of ancient cultures before the Greeks,  
technical communication, science writing
- Edward D. Lipson, Professor  
Ph.D., California Institute of Technology,  
1971  
Biophysics, experimental studies of sensory  
processes
- Vincent W. Lloyd, Assistant Professor  
Ph.D., University of California, Berkeley,  
2008  
Continental philosophy of religion; trauma  
theory; political theology.
- Soren Lowell, Associate Professor  
Ph.D., University of Arizona, 2005  
Voice physiology, voice disorders, swallowing,  
neurolaryngology
- Zunli Lu, Assistant Professor  
Ph.D., University of Rochester, 2008  
Low temperature geochemistry and uses a  
variety of methods (trace elements, isotopes  
and models) to investigate crustal fluids,  
carbon cycle and global environmental  
changes.
- Yan-Yeung Luk, Associate Professor  
Ph.D., University of Chicago, 2001  
Bio-organic, chemical biology, nanometer-  
scale and biocompatible materials, biosurfaces
- Adam Lutoborski, Professor  
Ph.D., Polish Academy of Sciences, 1981  
Numerical analysis, applied mathematics
- Scott Lyons, Associate Professor  
Ph.D., Miami University, 2000  
Native American literature and rhetoric
- Erin S. Mackie, Professor  
Ph.D., Princeton University, 1994  
Restoration and 18th-Century British  
literature
- Diane Kunzelman Magini, Adjunct  
Restorer, Uffizi Gallery, Florence History and  
practice of art restoration
- Christine Mahoney, Assistant Professor
- Eleanor Maine, Professor  
Ph.D., Princeton University, 1984  
Developmental genetics, cell-cell interactions

Stephen Maisto, Professor  
Ph.D., University of Wisconsin, 1975  
Etiology and treatment of alcohol and drug use disorders, treatment and process, outcome evaluation

M. Lisa Manning, Assistant Professor,  
Physics  
Ph.D., University of California, Santa Barbara, 2008

Defects and deformation in disordered solids and glasses; Surface tension and emergent mechanical properties in developing embryonic tissues; Mitotic waves and pattern formation in biological tissues; Constitutive models for friction and shear banding

M. Cristina Marchetti, William R. Kenan Jr. Professor, Chair Department of Physics  
Ph.D., University of Florida, 1982  
Condensed-matter theory

Brian K. Martens, Professor  
Ph.D., University of Nebraska, Lincoln, 1985  
Applied behavior analysis and school consultation

Charles Martin, Visiting Professor  
Ph.D., State University of New York at Buffalo, 1987  
Poetry

Joanna O. Masingila, Laura J. and L. Douglas Meredith Professor  
Ph.D., Indiana University, 1992  
Teacher learning, capacity building through teacher education.

Matilde M. Mateo, Assistant Professor  
Ph.D., University of Santiago de Compostela (Spain), 1994  
Art of Middle Ages, classical art, romantic aesthetics

Vivian M. May, Associate Professor  
Ph.D., Emory University, 1997  
Feminist epistemologies, African American and Third World feminist theories, decolonizing the imagination, critical pedagogy, literature and social change

Mathew M. Maye, Associate Professor  
Ph.D., SUNY Binghamton, 2005  
Inorganic chemistry, materials science, nanoscience, biomimetics, self-assembly

Janis A. Mayes, Associate Professor  
Ph.D., Brown University, 1975  
Francophone, African, Caribbean, and African-American literatures, literary translation

Terry R. McConnell, Professor  
Ph.D., University of Illinois, 1981  
Probability, analysis

Kris McDaniel, Associate Professor  
Ph.D., University of Massachusetts-Amherst, 2004

Metaphysics, philosophy of religion, ethics

Moirra A. McDermott, Assistant Professor  
Ph.D., University of Michigan, 1996  
Commutative Algebra, Computational Algebra (M2), Mathematics of Phylogenetics

Thomas McKay, Professor  
Ph.D., University of Massachusetts, 1974  
Philosophy of logic, philosophy of language, metaphysics

Dennis J. McKillop, Adjunct Assistant Professor  
Ph.D., University of Arizona, 1984

Alick McLean, Ph.D.  
Ph.D., Princeton University School of Architecture  
Italian Romanesque, Gothic and Renaissance architecture and urban design.

Jeff Meyer, Assistant Professor  
Ph.D., University of Illinois, 1997  
Number theory, special functions

Stephen Meyer, Associate Professor  
Ph.D., SUNY Stony Brook, 1996  
Eighteenth and 19th century music, history of opera

Alan Middleton, Professor  
Ph.D., Princeton, 1990  
Condensed matter, theory; computational physics

Claudia Miller, Professor  
Ph.D., University of Illinois at Urbana-Champaign, 1997  
Commutative algebra

Linda Milosky, Associate Professor  
Ph.D., University of Wisconsin, Madison, 1986  
Language development and disorders, discourse processing, pragmatics, cognition and language

Chandra Talpade Mohanty, Professor  
Ph.D., Education, University of Illinois, Urbana-Champaign, 1987  
Transnational feminist theory, anti-racist pedagogy, post-colonial and third world studies, cultural studies and radical education

Patricia Moody, Associate Professor of English  
Ph.D., University of Texas at Austin, 1972  
English language histories and history of linguistics, Discourse analysis, particularly medieval, Reception of the medieval, and Critical pedagogy

Rebecca Moore Howard, Professor, Writing Program

Ph.D., West Virginia University, 1984  
Theory of authorship, print culture studies, stylistics, composition history, sociolinguistics, writing across the curriculum, composition pedagogy, writing program administration

Kevin Morrison, Assistant Professor  
Ph.D., Rice University, 2009  
Victorian literature and culture

Donald E. Morton, Professor  
Ph.D., Johns Hopkins University, 1971  
Marxism, critical and social theory, feminism, queer theory, cultural studies and cybertheory

Robert Moucha, Assistant Professor, Earth Sciences  
Ph.D., University of Toronto, 2003  
Geodynamics, Geophysics and High Performance Computing

Raymond Mountain, Research Assistant Professor  
Ph.D., Notre Dame, 1992  
Elementary particles, experiment

Liviu Movileanu, Associate Professor  
Ph.D., University of Bucharest, 1997  
Biophysics

Micere Githae Mugo, Laura J. and L. Douglas Meredith Professor  
Ph.D., University of New Brunswick (Canada), 1973  
Orature, literature, creative writing, Pan-Africanist studies, education

Henry T. Mullins, Professor  
Ph.D., University of North Carolina, Chapel Hill, 1978

Tropical carbonate platforms, oceanography, and the Lacustrine Record of Quaternary climate change in the Finger Lakes and Ireland

Jonathan Nelson, Ph.D.  
Ph.D. in Art History, Institute of Fine Arts, New York University  
Renaissance art history.

Leonard Newman, Associate Professor; Director, Graduate Training Program in Social Psychology  
Ph.D., New York University, 1990  
Social cognition, social stigma, attitudes, psychology of genocide

Cathryn R. Newton, Professor  
Ph.D., University of California, Santa Cruz, 1983

Paleobiology, paleoecology of mass extinctions, environmental stratigraphy

- Brice Nordquist, Assistant Professor  
Ph.D., University of Louisville, Louisville,  
2014  
Composition Theory and Pedagogy, Language  
Diversity, Global Rhetorics, Literacy Studies,  
Writing Program Administration, Writing  
Across the Curriculum
- Richard M. O'Neill, Adjunct Associate  
Professor  
Ph.D., State University of New York at  
Buffalo, 1983
- Dana M. Olwan, Assistant Professor  
Ph.D., Queens College, 2009  
Transnational Feminist Theories of Race,  
Gender, and Religion; Gendered and Sexual  
Violence and the Honor Crime;  
Representations of Arab and Muslim women;  
Indigenous and Feminist Solidarities.
- Jani Onninen, Associate Professor  
Ph.D., University of Jyväskylä (Finland),  
2002  
Nonlinear analysis and geometric function  
theory
- Stephanie Ortigue, Assistant Professor  
Ph.D., Geneva University of Medicine and  
Savoy University, 2004  
Implicit perception, self-consciousness and its  
relationship to social cognition.
- Hille Paakkunainen, Assistant Professor  
Ph.D., University of Pittsburgh 2011  
Ethics, philosophy of action
- Tibor Palfai, Professor  
Ph.D., University of Waterloo, 1969  
Psychopharmacology, effects of drugs on  
learning and memory
- Iswari P. Pandey, Assistant Professor,  
Writing Program  
Ph.D., University of Louisville, 2006  
Literacy studies, writing, (critical)  
ethnography, global/post-colonial rhetorics,  
multimodal compositions
- Aesoon Park, Assistant Professor  
PH.D., University of Missouri-Columbia, 2006  
Longitudinal person-environment interplay on  
alcohol misuse across emerging and young  
adulthood.
- Stephen Parks, Associate Professor, Writing  
Program  
Ph.D., University of Pittsburgh, 1993  
Rhetoric, composition, community  
literacy/publishing, language politics, cultural  
studies
- Susan Parks, Assistant Professor  
Ph.D., Massachusetts Institute of  
Technology/Woods Hole Oceanographic  
Institution, 2003  
Behavioral ecology, acoustic communication,  
marine science, conservation biology
- Joseph Pellegrino, Clinical Assistant  
Professor  
Au.D., University of Florida, 2004  
Adult audiologic assessments and hearing aids
- Melissa Pepling, Associate Professor  
Ph.D., State University of New York at Stony  
Brook, 1995  
Mouse germ line development, oogenesis
- Susan Pepling, Assistant Professor  
Ph.D., Massachusetts Institute of  
Technology/Woods Hole Oceanographic  
Institution, 2003  
Behavioral ecology, acoustic communication,  
marine science, conservation biology
- Scott Pitnick, Professor  
Ph.D., Arizona State University, 1992  
Microevolutionary processes and  
macroevolutionary relationships
- Donald Planty, Professor
- Britton Plourde, Associate Professor  
Ph.D., University of Illinois, Urbana-  
Champaign, 2000  
Condensed matter, experiment
- Evgeny Poletsky, Professor  
Ph.D., University of Moscow (Russia), 1973  
Geometric theory of functions of real and  
complex variables
- Gwendolyn D. Pough, Associate Professor  
Ph.D., Miami University, Ohio, 2000  
African American rhetorical traditions,  
feminist rhetorics, popular culture, writing,  
rhetoric, composition, Black feminist theory,  
public sphere theory, popular culture
- Minnie Bruce Pratt, Professor  
Ph.D., University of North Carolina, 1979  
Feminist theory and intersections of race,  
class, gender, and sexuality; intersection of  
lesbian, gay, bisexual, and transgender lives and  
issues; creative nonfiction and poetry; story  
telling and activism
- Beth Prieve, Professor  
Ph.D., University of Iowa, 1989  
Auditory physiology, the diagnosis of hearing  
loss
- Declan Quinn, Professor  
Ph.D., University of Wisconsin, 1985  
Algebra, algebraic geometry, graph theory
- Gary M. Radke, Professor  
Ph.D., Institute of Fine Arts, New York  
University, 1980  
Italian Medieval and Renaissance art
- Ramesh Raina, Associate Professor  
Ph.D., Jawaharlal Nehru University (India),  
1991  
Molecular signaling mechanisms between  
plants and their pathogens
- Surabhi Raina, Assistant Professor  
Ph.D., Banaras Hindu University, 1992  
Plant molecular genetics, biotechnology
- Romita Ray, Associate Professor  
Ph.D., Yale University, 1999  
18th- and 20th-century European and British  
Empire art/architecture, South Asian art
- Kara Richardson, Assistant Professor  
Ph.D., University of Toronto, 2008  
Medieval philosophy, early modern  
philosophy
- Brian Rieger, Adjunct Assistant Professor  
Ph.D., Fordham University, 1996
- Robin Riley, Assistant Professor  
Ph.D., Syracuse University, 2000  
Gender, war and militarism, transnational  
feminism, gender studies and queer theory,  
feminist international relations theory,  
feminist methodologies, popular culture,  
feminist theory, feminist pedagogy
- Alicia Rios, Associate Professor  
Ph.D., University of Maryland, 1992  
Latin American literature and culture
- Mark Ritchie, Professor  
Ph.D., University of Michigan, 1987  
Biodiversity, plant-herbivore interactions,  
conservation biology
- William C. Ritchie, Associate Professor  
Ph.D., University of Michigan, 1969  
Linguistics, adult second-language learning,  
applied linguistics
- William A. Robert, Assistant Professor  
Ph.D., University of California, Santa Barbara,  
2005  
Continental philosophy of religion;  
Christianity; mysticism; gender; ethics.
- John E. Robertson, Assistant Professor  
Ph.D., University of Texas, 1975  
Ancient philosophy, Aristotle's metaphysics,  
philosophy of mind, theory of action
- Marcia C. Robinson, Assistant Professor  
Ph.D., Emory University, 2001  
Christian thought, African American religion  
and art

Carl Rosenzweig, Professor  
Ph.D., Harvard University, 1972  
Elementary particle theory, relativistic quantum field theory, gauge theory, cosmology

Zaline M. Roy-Campbell, Associate Professor  
Ph.D., University of Wisconsin-Madison  
Cultural and linguistic diversity, successful schools for African American students

Patricia Roylance, Assistant Professor  
Ph.D., Stanford University, 2005  
Early American literature and culture

Herbert Ruffin, Associate Professor  
Ph.D., Claremont Graduate University, 2007  
African American history, U.S. West history, urban history.

Karin Ruhlandt, Distinguished Professor, Interim Dean  
Dr.rer.nat., Philipps University, Marburg (Germany), 1991  
Inorganic and organometallic chemistry, crystallography, synthesis and structural characterization of inorganic compounds and their application in synthetic, solid state, and polymer chemistry

John M. Russell, Professor  
Ph.D., University of Utah, 1971  
Cellular physiology, ion transport, effects of viruses on cellular homeostatic processes

Natalie Russo, Assistant Professor  
Ph.D., McGill University, 2007  
Autism Spectrum Disorders, ADHD, & sensory processing disorders.

Scott D. Samson, Professor  
Ph.D., University of Arizona, 1990  
U-pb geochronology, chemical evolution of the crust-mantle system, evolution of neoproterozoic circum-Atlantic orogens

Jureepan Saranak, Research Assistant Professor  
Ph.D., Mt. Sinai Medical School, 1981  
Biophysics

Peter Saulson, Martin A. Pomerantz '37 Professor in Physics  
Ph.D., Princeton University, 1981  
Relativity, astrophysics experiment

George Saunders, Professor  
M.F.A., Syracuse University, 1988  
Creative writing, fiction

Douglas J. Scaturro, Adjunct Associate Professor  
Ph.D., Claremont Graduate School, 1979

Joseph Schechter, Professor  
Ph.D., University of Rochester, 1965  
Elementary particle theory

Eileen E. Schell, Associate Professor, Writing Program  
Ph.D., University of Wisconsin-Milwaukee, 1993  
Composition theory, 19th- and 20th-century rhetorical theory, women's rhetoric, feminist theory

Eric A. Schiff, Professor  
Ph.D., Cornell University, 1979  
Amorphous and crystalline semiconductors: defects, transport and recombination

Christopher A. Scholz, Associate Professor  
Ph.D., Duke University, 1989  
Sequence stratigraphy, lacustrine and rift basin sedimentation and reflection seismology

Lael J. Schooler, Professor  
Ph.D., Carnegie Mellon, 1993  
Investigates simple heuristics - decision strategies that use limited information to make effective decisions in an uncertain world - with computer simulations and behavioral experiments to help explain how people make decisions and how to improve these processes.

Jennifer Schwarz, Associate Professor  
Ph.D., Harvard, 2002  
Condensed matter theory

Sascha Scott, Assistant Professor  
Ph.D, Rutgers University, 2008  
19th- and 20th-century American art, art of the American West, representations of American Indians

Tony Scott, Associate Professor, Writing Program  
Ph.D., University of Louisville

Kari A. Seagraves, Associate Professor  
Ph.D., Vanderbilt University, 2003  
Plant-insect interactions, mutualism, coevolution, and phylogenetics

Lixin Shen, Associate Professor  
Ph.D., Zhongshan University, 1996  
Wavelets and image processing

Stephanie Shirilan, Assistant Professor  
Ph.D., Brandeis University, 2009  
Seventeenth-century literature and culture

Donald I. Siegel, Professor, Chair, Earth Sciences  
Ph.D., University of Minnesota, 1981  
Regional hydrogeology, wetland hydrogeology, groundwater geochemistry

Robert Silver, Professor

Renate Simson, Part-time Assistant Professor  
Ph.D., Syracuse University, 1974  
Nineteenth-century African American literature

Tomasz Skwarnicki, Professor  
Ph.D., Institute of Nuclear Physics, Krakow (Poland), 1986  
Elementary particles, experiment

Bruce Smith, Professor  
M.A., Bucknell University, 1971  
Creative writing, poetry

Joshua M. Smyth, Professor  
Ph.D., State University of New York at Stony Brook, 1998  
Health psychology/behavioral medicine, stress and coping, psychological interventions

David Sobel, Irwin and Marjorie Gutttag Professor of Ethics and Political Philosophy  
Ph.D., University of Michigan, 1997  
Ethics, political philosophy

Mitchell Soderberg, Assistant Professor  
Ph.D. University of Michigan, 2006  
Elementary particles, experiment

Karl Solibakke,

Paul Souder, Professor  
Ph.D., Princeton University, 1971  
Medium energy experiments

James T. Spencer, Laura J. and L. Douglas Meredith Professor, Associate Dean, Exec. Dir. Forensic and National Security Sciences Institute (FNSSI)  
Ph.D., Iowa State University, 1984  
Inorganic and organometallic-main group cluster complexes, forensic science, solar energy conversion chemistry, formation of solid state materials, nanostructures and nonlinear optical materials

Dana Spiotta, Associate Professor  
B.A., Evergreen State College, 1992  
Creative writing, fiction

Michael B. Sponsler, Professor  
Ph.D., California Institute of Technology, 1987  
Organic and organometallic chemistry, liquid crystalline holographic materials

Robert P. Sprafkin, Adjunct Professor  
Ph.D., Ohio State University, 1968

W. Thomas Starmer, Professor  
Ph.D., University of Arizona, 1972  
Population genetics, evolutionary biology, ecological genetics

Sanford Sternlicht, Professor Emeritus  
Ph.D., Syracuse University, 1962  
Drama, fiction

Sheldon Stone, Professor  
Ph.D., University of Rochester, 1972  
Elementary particles, experiment

Kevin Sweder, Professor of Practice  
Ph.D., California Institute of Technology  
Biochemistry, Biochemical methods in  
bioforensic and bioterrorism detection, DNA  
repair mechanisms, and genetic toxicology.

Melody Troeger Sweet, Assistant Professor  
Ph.D., University of Pennsylvania, 1985  
Physiology and molecular biology

Zofia Sztachmiller,

Harvey A. Taub, Adjunct Professor  
Ph.D., University of Massachusetts, 1963

Harvey Teres, Professor  
Ph.D., University of Chicago, 1986  
Twentieth-century American literature and  
culture, Marxist theory, American studies

Greg Thomas, Associate Professor  
Ph.D., University of California-Berkeley,  
1999  
African/diasporic literature and culture, studies  
in sex and sexuality, world political criticisms

Laurence Thomas, Professor, Philosophy  
and Political Science  
Ph.D., University of Pittsburgh, 1976  
Ethical theory, social philosophy, the  
Holocaust

Maria Emma Ticio Quesada, Assistant  
Professor  
Ph.D., University of Connecticut, 2003  
Languages, Literatures and Linguistics;  
Linguistics

John W. Tillotson, Associate Professor  
Ph.D. University of Iowa, 1996  
Science teacher education, teachers' beliefs and  
practices, rural education

Silvio Torres-Saillant, Professor  
Ph.D., New York University, 1991  
Caribbean, United States, Latino, and  
comparative literature

Nancy I. Totah, Associate Professor  
Ph.D., Yale University; 1990  
New methods for organic synthesis,  
asymmetric synthesis of natural products

Joseph T. Tupper, Professor  
Ph.D., State University of New York at  
Albany, 1970  
Growth-factor regulation of cell proliferation

John Ucci, Professor  
Ph.D., University of California, Berkely, 1964  
Algebraic topology

J. Albert L. Uy, Associate Professor  
Ph.D., University of Maryland-College Park,  
2000  
Sexual selection, animal communication,  
speciation

Edwin I.S. Van Bibber-Orr, Assistant  
Professor of Chinese  
Ph.D., Yale University, 2013  
Chinese Language, Premodern Chinese Poetry,  
Chinese Song Lyric (Ci), Chinese Women  
Writers, Reception History, Translation  
Theory, Print Culture in Premodern  
China, Ming and Qing Fiction

Matthieu H. van der Meer, Assistant  
Professor  
Ph.D., University of Groningen, 2006  
The history of Platonic literature in Antiquity  
and the Middle Ages with a special emphasis of  
the reception of Platonism by the philosopher  
Nicholas of Cusa (1401-1464).

Robert Van Gulick, Professor  
Ph.D., University of California, Berkeley,  
1976  
Philosophy of mind, philosophy of  
psychology

Peter A. Vanable, Associate Professor  
Ph.D., University of Illinois at Chicago, 1997  
Health psychology, HIV/AIDS prevention,  
substance use disorders

Kathy R. Vander Werff, Associate  
Professor  
Ph.D., University of Iowa, 2002  
Auditory evoked potentials, diagnostic  
audiology, and cochlear implants

Laura E. VanderDrift, Assistant Professor  
of Psychology  
Ph.D., Purdue University  
Inter- and intra-personal dynamics of close  
relationships; examining predictors of  
relationship outcomes, most notably  
dissolution behaviors and health outcomes, as  
well as the processes associated with these  
outcomes

Gregory Verchota, Professor  
Ph.D., University of Minnesota, 1982  
Partial differential equations, analysis

Gianfranco Vidali, Professor  
Ph.D., Pennsylvania State University, 1982  
Surface physics: adsorption/desorption  
phenomena, two-dimensional matter, thin-  
film growth; lowtemperature physics

Andrew Vogel, Professor  
Ph.D., University of Kentucky, 1989  
Partial differential equations

William Voltermann, Assistant Professor  
Ph.D., McMaster University, 2011  
Statistics

Karina von Tippelskirch, Assistant  
Professor  
Ph.D., Marburg University (Germany), 1997  
German literature

Joanne P. Waghorne, Professor  
Ph.D., University of Chicago, 1976  
History of religions, South Asian religion,  
globalization

Ernest E. Wallwork, Professor  
Ph.D., Harvard University, 1971  
Ethics, religion, the social sciences, and  
bioethics

Jianchun Wang, Research Associate  
Professor  
Ph.D., Massachusetts Institute of  
Technology, 1997  
Elementary particles, experiment

B.R. Ware, Professor  
Ph.D., University of Illinois, 1972  
Biophysical chemistry

Betsy B. Waterman, Adjunct Assistant  
Professor  
Ph.D., Syracuse University, 1990

Mark E. Watkins, Professor Emeritus  
Ph.D., Yale University, 1964  
Combinatorics, algebraic graph theory

Scott Watson, Assistant Professor, Physics  
Ph.D. Brown University, 2005  
Particle physics; cosmology theory

James W. Watts, Professor  
Ph.D., Yale University, 1990  
Hebrew Bible and ancient Near Eastern  
religious traditions

Laura Webb, Research Professor  
Ph.D., Stanford University, 1999  
Structural geology, thermochronology,  
tectonics

Stephan Wehrli, Assistant Professor,  
Mathematics  
Ph.D. University of Zurich, 2007  
Topology

Roy Welch, Associate Professor  
Ph.D., University of Wisconsin-Madison,  
1997  
Biochemistry, molecular signaling mechanisms

Louise Wetherbee Phelps, Emeritus Professor  
Ph.D., Case Western Reserve University, 1980

Composition and rhetoric (theory, phenomenological description, criticism, pedagogy), writing program administration

Corey Nathan White, Assistant Professor of Psychology  
Ph.D., Ohio State University, 2010  
Understanding how the brain allows us to adapt during the decision making processes and how emotions affect memory. How different information drives behavior by employing mathematical models of cognition and functional MRI to map cognitive processes onto neural systems in healthy adult populations and clinical populations with elevated emotions.

Jason R. Wiles, Associate Professor  
Ph.D., McGill University 2008; M.S.T., Portland State University, 1996; M.S., Mississippi State University, 2007  
Biology and science education, teaching and learning of biological evolution

Bruce H. Wilkinson, Research Professor, Earth Sciences  
Ph.D, University of Texas, 1974  
Sedimentary geology

Kheli R. Willetts, Assistant Professor  
Ph.D., Syracuse University, 2002  
African American art history and museum studies

James G. Williams, Assistant Professor  
Ph.D., University of California, San Diego, 2013  
African and African American musical traditions

Amanda Winkler, Associate Professor  
Ph.D., University of Michigan, 2000  
Seventeenth century music, music in England

Larry L. Wolf, Professor  
Ph.D., University of California, Berkeley, 1966  
Ecology and social behavior, community and population ecology

Bradley Wyble, Assistant Professor  
Ph.D., Harvard University, 2003  
Temporal factors of attention, memory, and perceptual experience.

William Wylie, Assistant Professor  
Ph.D., University of California, Santa Barbara, 2006  
Riemannian geometry, geometric flows, global geometric analysis.

Amy S. Wyngaard, Associate Professor  
Ph.D., University of Pennsylvania, 1998  
French Literature

Yuesheng Xu, Emeritus  
Ph.D., Old Dominion University, 1989  
Applied mathematics

David Yaffe, Assistant Professor  
Ph.D., City University of New York, 2003  
Contemporary American studies, literature, music

Yuan Yuan, Assistant Professor  
Ph.D., Rutgers University, 2010  
Analytic and geometric function theory in several complex variables and complex differential geometry.

Dan Zacharia, Professor  
Ph.D., Brandeis University, 1981  
Algebra

Jon Zubieta, Distinguished Professor  
Ph.D., Columbia University, 1971  
Inorganic chemistry, coordination complexes, polyoxometalates, microporous materials, technetium-based radiopharmaceuticals

# School Of Education

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Dr. Joanna Masingila, Dean  
230 Huntington Hall  
soe.syr.edu



## About The College

Welcome to Syracuse University's School of Education, a national leader in inclusive urban education. The school offers a variety of degree programs in teaching and non-teaching areas. Many of these programs lead to initial teaching certification in New York State. Emphasizing a solid foundation in the liberal arts as well as education, each degree program accommodates the personal and professional needs of its students. Many of our faculty members hold dual appointments in the School of Education and another college within the University. The School of Education also offers numerous laboratory and field-based teaching experiences in cooperation with local school districts, community institutions, and on-and off-campus early childhood centers.

There are no careers more critical to the human condition and sustainability than teaching, educational policy and the foundations of education, research in health and exercise science, counseling and instructional technology. Our undergraduate and graduate students as well as our faculty come from throughout the U.S. and from around the world.

Our leadership in inclusive urban education is built on a legacy of pioneering work in advancing educational opportunities for all learners. By linking research to practice our community of scholars and innovators collaborate to lead nationally recognized centers and institutes and serve in leadership roles on national boards, research projects and international conferences and projects.

Join us here at Syracuse University, take part in our centers abroad in London, Florence and Beijing or in our research and training projects in Asia, Australia, Latin America and Africa. Be a part of groundbreaking projects such as Say Yes to Education and Economic Development, Schools of Promise, Smart Kids, our Summer Literacy Clinic, the Taishoff Center, and the Center on Human Policy, Law and Disability Studies as well as many other dynamic programs. Become part of the School of Education's mission to address issues and seek solutions that can define the future of teaching and leadership, higher education, health and exercise science, reading and language arts, instructional design development and evaluation, and counseling in America and around the world.

## Educational Mission

### A National Leader In Inclusive Urban Education

Syracuse University's School of Education, a national leader in improving and informing educational practice for diverse communities, is committed to the principle that diverse learning communities create the conditions that both enrich the educational experience and provide opportunities for all to succeed. The School of Education pioneered the inclusion movement in the United States, making way for all learners to participate fully in mainstream classrooms and other inclusive learning environments.

## Undergraduate Education

### DEGREE REQUIREMENTS

All undergraduate programs offered by the School of Education typically require the completion of 120 to 138 credits. Specific program requirements vary, as do the total number of credits.

At several points during teacher preparation programs, reviews of students' progress are made to determine continued eligibility for each program. These review points vary, but in all cases include the time just prior to student teaching. See individual program descriptions for further information.

Field experiences, usually off campus, are required throughout most programs, with placement sites assigned by course instructors or through the field placement office. While convenience is considered in making placement assignments, other factors may preclude the most convenient appointments. The School of Education does what it can to facilitate transportation for field experiences before student teaching. Students are encouraged to provide their own transportation for student-teaching assignments (EDU 508).

### SINGLE ENROLLMENT PROGRAMS

All single-enrollment programs lead to a Bachelor of Science (B.S.) degree. Each program requires distribution in liberal arts and sciences, with a total of at least 60 credits in liberal arts.

The School Of Education's Single-Enrollment Programs Are:

Teacher Preparation Programs:

- Inclusive Elementary and Special Education (grades 1-6)
- Health & Physical Education (all grades)
- Physical Education (all grades)

#### Non-Teacher Preparation Programs:

- Health and Exercise Science
- Selected Studies in Education

### DUAL ENROLLMENT PROGRAMS

Expertise in some areas is gained more appropriately by drawing on the course offerings of two colleges within the University. Dual programs within the School of Education require study in a content area and professional education courses (including field experiences), as well as satisfaction of college requirements. They all lead to New York State initial teacher certification.

Students must enroll in both the School of Education and the cooperating college. Dual programs are available in cooperation with the College of Arts and Sciences, the College of Visual and Performing Arts, and the David B. Falk College of Sport and Human Dynamics. Students typically complete one program offered jointly by the two colleges and, in the case of dual programs with Arts and Sciences, a major in the college reflecting the subject to be taught.

#### TEACHER PREPARATION PROGRAM FOR BIRTH-2ND GRADE OFFERED WITH THE David B. Falk College Of Sport And Human Dynamics:

- Inclusive Early Childhood Special Education

The School of Education is the primary (home) college for the Inclusive Early Childhood Special Education program

#### Teacher Preparation Programs For Grades 7-12 Offered With The College Of Arts And Sciences Are:

- English Education
- Mathematics Education
- Science Education
- Social Studies Education
- Spanish Education

#### Teacher Preparation Programs For All Grades Offered With The College Of Visual And Performing Arts Are:

- Music Education
- Art Education

These other colleges serve as the primary (home) college. However, although the primary college's policies and procedures are often followed, some policies in the School of Education must also be followed, such as meeting the prerequisites to professional semesters and student teaching, as well as specific arts and sciences course requirements.

## UNDERGRADUATE ADMISSIONS

### External Admissions

(Students applying to Syracuse University from high school or another college or university.)

The School of Education appreciates your interest and hopes you will continue to learn more about the School by exploring the website (<http://www.soe.syr.edu>), visiting campus and meeting with a representative of the School.

### To Apply

Candidates for undergraduate admission to Syracuse University apply to a specific major within one of our schools or colleges. To learn more about the programs available in the School of Education, contact Zachary Schuster, Undergraduate Admissions Recruiter at (315) 443-4269 or [zmschust@syr.edu](mailto:zmschust@syr.edu).

For information about the application, the application process or enrollment dates and deadlines, contact the Office of Admissions at (315) 443-3611 or [orange@syr.edu](mailto:orange@syr.edu). To apply, please visit: <http://www.admissions.syr.edu/>

### Application Timelines

- Early Decision Deadline: November 15
- Regular Decision Deadline: January 1
- Admissions Notification: Mid-March
- Candidates must reply by May 1

### Visit Us

If you are interested in a full campus tour, a personal interview or an Office of Admission's information session, please contact the Office of Admissions at (315) 443-3611 or [orange@syr.edu](mailto:orange@syr.edu).

If you would like to meet with Zachary Schuster, the Undergraduate Admissions Recruiter for the School of Education, please contact her at (315) 443-4269 or zmschust@syr.edu

## Internal Admissions

(Students who are already attending Syracuse University and want to transfer to the School of Education.)

### INTRA-UNIVERSITY TRANSFER

Syracuse University students interested in an intra-university transfer (IUT) to the School of Education must meet the following cumulative grade point average (GPA) requirements for their desired program of study:

- 3.0 Art Education
- 3.0 Health and Exercise Science
- 3.0 Inclusive Early Childhood Special Education
- 3.0 Inclusive Elementary and Special Education
- 3.0 Music Education
- 3.0 Health & Physical Education
- 3.0 Physical Education
- 3.0 Secondary Education Programs
- 2.8 Selected Studies in Education

\*Students who fall below the minimum GPA requirement are encouraged to apply as an IUT into the School of Education. Applications will be reviewed and considered on an individual basis.

Students must submit an intra-university transfer (IUT) application, available in the Office of Academic and Student Services in the School of Education, 111 Waverly Avenue, Suite 230; in addition, a personal interview may be required from the Office of Academic and Student Services. Students who meet the cumulative GPA requirement are admitted on a space-available basis as determined by the education program. Those students whose cumulative GPA does not meet the requirements can be counseled as to the best options for them.

The applicability of prior earned credit (both at SU and transfer credit) will be evaluated. Intra-university transfer (IUT) applications are held until the end of the semester when GPAs and the student's interest in entering the program are assessed.

Students considering transfer into one of the single programs in education may find the following course suggestions helpful. These courses may be taken by non-education students with advisement while they make the decision to transfer or while the intra-university transfer (IUT) application is being processed.

Inclusive Early Childhood Special Education  
CFS 201 Family Development  
CFS 202 Development of Children and Youth  
EDU/DSP 203 Introduction to Inclusive Schooling

Inclusive Elementary and Special Education Teacher Preparation Program  
EDU 203 Study of Elementary and Special Education Teaching (first year)  
SPE 311 Perspectives on Disabilities

Health and Exercise Science  
PPE 295 Introduction to Exercise Science  
HEA 332 Personal Health and Safety

Physical Education or Health & Physical Education  
PPE 177 Introduction to Health & Physical Education  
EDU 204 Principles of Learning In Inclusive Classrooms

Selected Studies in Education  
EDU 221 Education for Transformation  
EDU 321 International Education for Transformation  
EDU 310 American School

## UNDERGRADUATE FINANCIAL AID

The Office of Financial Aid and Scholarships is available to address your questions, offer options for payment, assist in filing student loan and grant applications, and suggest financial planning options. For additional information, visit their web site at <http://financialaid.syr.edu>, call (315) 443-1513 or send e-mail to [finmail@syr.edu](mailto:finmail@syr.edu).

School Of Education Scholarships

## Burton Blatt Scholarship

This scholarship is open to both undergraduate and graduate students at the School of Education. Recipients are chosen both for merit and financial need with preference given to a minority candidate.

For information regarding this scholarship contact:

Angela Flanagan, Scholarship Coordinator

Awards & Scholarship Committee

250 Huntington Hall

Syracuse, New York 13244-2340

Phone: (315) 443 - 4754

Fax: (315) 443 - 2258

e-mail: arflanag@syr.edu

## TEACH Grant

The College Cost Reduction and Access Act of 2007 created the Teacher Education Assistance for College and Higher Education (TEACH) Grant Program that provides grants of up to \$4,000 per year to students who intend to teach in a public or private elementary or secondary school that serves students from low-income families. More information can be found at <http://financialaid.syr.edu/teach.htm>.

## Robert Noyce Scholars Program

The Robert Noyce Scholars program, funded by the National Science Foundation and offered jointly through Syracuse University's College of Arts and Sciences and School of Education, responds to the critical need for mathematics and science teachers by encouraging talented science, technology, engineering, and mathematics (STEM) students and STEM professionals to pursue teaching careers in high-needs K-12 schools.

The funds granted from the Syracuse University Noyce Scholars Program are intended to assist persons who wish to make a commitment to teach science or mathematics in high-needs urban or rural schools. Qualifying undergraduate students receive up to \$10,000 per year for a maximum of three years. Qualifying graduate students receive up to \$20,000 for one year of study. Promising freshman and sophomore STEM majors can receive \$1,200 for a four-week summer internship.

For information please contact:

John W. Tillotson Ph.D., Associate Professor

Syracuse University Noyce Scholars Program

101 Heroy Geology Lab

Syracuse, NY 13244-1070

315-443-2586

noyce@syr.edu

## Accreditation

The School of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE).

On July 1, 2013, NCATE consolidated with the Teacher Education Accreditation Council (TEAC) to form the Council for the Accreditation of Educator Preparation (CAEP). CAEP is the new accrediting body for educator preparation. CAEP continues to require institutions of higher education who prepare school professionals (Education Preparation Providers (EPPs)) to use performance based assessments to measure a candidate's proficiencies, a programs' success in achieving its goals, and the EPPs' operations in support of candidates and programs.

Professional accreditation of preparatory education programs is the bedrock upon which all professions (e.g., architecture, engineering, medicine, and law) have built their reputations. It assures that those entering the respective field have been suitably prepared to practice through assimilation of a body of knowledge and pre-service practice in the profession. Accreditation of schools of education indicates that the school underwent rigorous external review by professionals, that performance of a teacher candidate in the program has been thoroughly assessed before he or she is recommended for licensure, and that programs meet standards set by the teaching profession at large.

Regional accreditation organizations are now following this same rigorous approach to assessments and are asking faculty from education to be leaders at their institutions. This paradigm shift is creating a culture on college campuses towards innovation and quality improvements.

Please refer to the CAEP website for additional information on accreditation: <http://caepnet.org/>

## Student Services

### THE OFFICE OF ACADEMIC AND STUDENT SERVICES

The Office of Academic and Student Services was created to ensure that students get the most out of their college experience. The staff in the office provides a thorough and effective system of support for both undergraduate and graduate students from the admissions process through graduation and beyond.

From academic support to career advice to information about opportunities to study abroad, the professionals in Academic and Student Services have the

experience and knowledge to answer questions, provide advisement, and make referrals as necessary.

## Publications

Academic and Student Services publishes a newsletter each semester which provides students, faculty, and staff current information about certification, career services, and advising. The current and previous newsletters can be found online at: [http://soe.syr.edu/current/student\\_services/default.aspx](http://soe.syr.edu/current/student_services/default.aspx)

## Forms

Official forms most commonly requested by students can be found in the Office of Academic and Student Services, and also on the website at: [http://soe.syr.edu/current/student\\_services/forms.aspx](http://soe.syr.edu/current/student_services/forms.aspx)

If a form that is relevant to a specific academic situation cannot be found on the website, students can stop by the Office of Academic and Student Services for assistance.

Academic and Student Services  
111 Waverly Avenue, Suite 230  
Syracuse, NY 13244  
Phone (315) 443-9319  
Fax (315) 443-5732

## Undergraduate Advising

All undergraduate students in the School of Education are encouraged to make use of the facilities of the Office of Academic and Student Services. Located at 111 Waverly Avenue, Suite 230, Academic and Student Services has the resources to help students better understand academic requirements, negotiate academic policies and processes, and get the most out of their college experience.

The mission of Academic and Student Services is to help students succeed by providing information, fostering personal development and responsibility, and offering supportive services. Students have an open invitation to stop by with questions or concerns regarding academic programs, advising, career issues, and certification. If an answer is not provided here, our staff is dedicated to helping students find what they need.

Services available to undergraduates through the Office of Academic and Student Services include the following:

- Advising (faculty and staff)
- Peer Advising
- Admissions
- Academic and Personal Support
- Career Services
- Teacher Certification

## Graduate Advising

The Office of Academic and Student Services provides advice and guidance on School of Education and Syracuse University policies, advocates for student concerns, and offers a range of services to assist students as they work toward their academic and career goals.

The mission of Academic and Student Services is to help students succeed by providing information, fostering personal development and responsibility, and offering supportive services. Students have an open invitation to stop by with questions or concerns regarding academic programs, advising, career issues, and certification. If an answer is not provided here, our staff is dedicated to helping students find what they need.

Services available to graduate students through the Office of Academic and Student Services include the following:

- Advising (faculty and staff)
- Admissions
- Academic and Personal Support
- Career Services
- Teacher Certification

# New York State Teacher Certification

## Initial Certification

- Is the first New York State certificate and is effective for 5 years from the issuance date.
- Complete School of Education approved undergraduate or graduate teacher prep program.
- Pass New York State teacher exams.
- Complete fingerprinting process at least 2 months prior to graduation.
- Candidates should apply for this certification within 2 years of graduation to be eligible for School of Education's recommendation.

## Professional Certification

- Must be earned before initial certificate expires.

- New York State teacher exams are not required (with the exception of Speech & Language Disabilities).
- Requires completion of a Masters degree in a related area of initial certification.
- Requires completion of 3 years full time teaching employment.
- Requires completion of professional development through school district employer.

#### Options For Those With Initial Certification Earned At The Bachelors Level

- Earn Masters degree leading to professional certification in area of initial certification.
- Earn Masters degree in a new certification area.
- Earn Masters degree, provided that 12 graduate credits of content related to the initial certificate are completed (as part of the Masters or in addition to it), as specified by New York State (must apply for certification directly to New York State Department of Education).

#### Checklist Of Steps To File For New York State Certification

- Successfully pass the required New York State Teacher Certification exams. Test dates, registration and preparation guides are available at [www.nystce.nesinc.com](http://www.nystce.nesinc.com).
- Apply for fingerprinting clearance at least 2 months prior to graduation at 111 Waverly Avenue, Suite 230 (above the Health Center) or call 315-443-4759.
- Meet with an advisor in the Office of Academic and Student Services, 111 Waverly Avenue, Suite 230, to confirm that all degree requirements will be completed. Call 315-443-9319.
- Apply for certification through NYSED TEACH Online Services at [www.highered.nysed.gov/tcert/](http://www.highered.nysed.gov/tcert/). Directions will be made available prior to graduation.

#### Recommendation For Certification

- Online certification recommendation will be completed once award date is posted on transcript (typically 4-6 weeks after graduation).

#### Out-Of-State Teacher Certification

- Each state has specific teacher certification requirements; therefore, it is recommended that students search each state's education department web site for the most up-to-date information.

#### Fingerprinting

- Required for New York State certification.
- Apply for fingerprinting clearance at least 2 months prior to graduation.
- Complete the online fingerprint application and make payment through the NYSED TEACH web site at <http://www.highered.nysed.gov/tcert/teach/>. It is advised to pay online with a credit card for faster processing.
- Upon receipt of fingerprint packet, email Linda DeFrees at: [ldefree@syr.edu](mailto:ldefree@syr.edu) to make an appointment to get fingerprints inked on fingerprint cards.
- Fingerprinting will take place at 111 Waverly Avenue, Suite 230 (above the Health Center).
- Call 315-443-4759 for additional inquiries regarding this process.
- Inquiries regarding whether previous fingerprinting applies for certification, please contact Office of School Personnel Review and Accountability, New York State Education Department, 987 Education Building Annex, Albany, NY 12234. Phone 518-473-2998 or email [OSPRA@mail.nysed.gov](mailto:OSPRA@mail.nysed.gov).

#### Information And Updates Regarding All New York State Teacher Certification Examinations Can Be Found At:

[http://www.nystce.nesinc.com/NY\\_annProgramUpdate.asp](http://www.nystce.nesinc.com/NY_annProgramUpdate.asp)

### Career Services Office

The School of Education Career Services center offers a variety of services to help students with their job search in the education field. These services include opening a credential file, resume assistance, Teacher Recruitment Days participation and New York State Teacher Certification recommendation.

#### Credential Files

- Recommended to be opened in the senior year after student teaching placement.
- Contains recommendation letters from host teachers, professors, and employers.
- \$35 registration fee is required to open a file (first 3 mailings are free of charge). Once a file contains at least 3 letters, it is ready to send to prospective employers.
- Copies of the file are sent at request of applicant via email to Linda DeFrees.
- All checks and money orders should be made payable to Syracuse University.
- Application forms are available on the School of Education website.

#### Resume And Cover Letter Assistance

- Resource materials available at 111 Waverly Avenue, Suite 230.
- Resume and cover letter review and assistance. Please email request for an appointment to Linda DeFrees.

## Teacher Recruitment Days

- The annual Central New York Teacher Recruitment Days job fair is held each spring at SUNY Cortland, New York.
- Eligible Syracuse University School of Education students will be offered the opportunity to interview with school districts visiting from a variety of schools.

## Job Search Handbook For Educators

- This handbook is available free of charge to facilitate the job search. It offers valuable tips for resumes, cover letters and interviewing techniques. It also contains information related to job hunt strategies and teacher 'supply and demand' per region.

### Teaching Opportunities:

Explore career opportunity websites.

### Teaching Abroad Opportunities:

Explore career opportunity websites.

## Study Abroad

At Syracuse University, studying abroad is a longstanding tradition. More than half the students enrolled through the SU Abroad (formerly known as DIPA) come from universities across the U.S. and from almost all major fields of study.

The School's programs run in conjunction with SU Abroad and have close ties to local universities, allowing students to design integrated programs of study appropriate to their academic and linguistic abilities. Every SU Abroad Center is overseen by a faculty director, administrators and host-country staff who are available to assist students at all times with their academic and personal needs. Pre-departure and on-site orientation programs further prepare students for their semester or year abroad.

The School of Education supports and encourages study abroad for undergraduate students enrolled in any of our programs. The faculty and program advisors work very closely with students on appropriate course sequencing to facilitate this.

## Facilities

The quality of a student-centered research institution is measured in part by its success in integrating its students' learning experiences and its faculty members' scholarship. In a professional school, the key to that integration lies in sustained, critical, always-respectful engagement with the profession and those it serves. It relies upon creating a community of learners devoted to service. The efforts of our students and faculty members to create such a community are supported by an organizational infrastructure of coordinating councils, teacher centers, professional development schools, subject matter academies, specially-funded research and development projects, and skilled staff members. All are devoted to nurturing collaborative partnerships between preservice educators, University faculty, and practicing professionals in public education, higher education, and other educational and work environments.

The following facilities are part of our campus in Syracuse, New York:

- Huntington Hall houses the Dean's office and the majority of School of Education departments and offices.
- The Hoople building houses the faculty offices, clinic and classroom for the Department of Counseling and Human Services. The Center for Human Policy is also located in Hoople.
- Heroy is home to the Department of Science Teaching and houses classroom and laboratory space.
- Comstock Art Facility, 1055 Comstock Ave is the main building for Art Education.
- Crouse College houses an auditorium and practice space for Music Education .
- Carnegie is home to Math Education.
- 111 Waverly Avenue, Suite 230 is home to the Office of Academic and Student Services .
- The Women's Building houses the Exercise Science Department's faculty and administrative offices, two research laboratories, two gymnasiums, an indoor pool, a dance studio, outdoor playing fields, and tennis courts.
- Exercise Science research facilities include:
  - Human Performance Laboratory
  - Hypoxia Laboratory
  - Muscle Biology Laboratory
- Ernie Davis is home to a teaching laboratory and classroom in addition to the Health and Exercise Science Learning Community.

## Research Centers & Institutes

### Centers & Institutes

The Syracuse University mission of Scholarship in Action is strengthened by the centers and institutes housed at the School of Education.

The School of Education's centers and research institutes are growing to accommodate the needs of the communities they serve and to offer students robust

interdisciplinary experiences.

#### The Inclusion Institutes

- Institute on Communication and Inclusion
- Taishoff Center on Inclusive Higher Education
- Schools of Promise

#### School Reform for Urban Youth

- Landscape of Urban Education Lecture Series
- Early College High School
- Say Yes to Education

#### Collaborative Partnerships

- Partnership For Better Education
- Liberty Partnerships Program
- Kenyatta University and Syracuse University Partnership
- Center for Human Policy, Law and Disability Studies
- Community Initiatives in the Visual Arts
- Psycho-Educational Teaching Laboratory
- The Study Council at Syracuse University

#### Higher Education Supports and Initiatives

- Academic Opportunity Programs (HEOP & SSS)
- Intergroup dialogue
- Regional Holocaust and Genocide Initiative
- McNair Scholars Program
- Extended Campus
- Office of Professional Research and Development

## Academic Offerings

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### African American Studies Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in African American Studies and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Anthropology Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Anthropology and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Art Education

Contact: Dr. James H. Rolling Jr, Department of Art, Comstock Art Facility Rm 043, 315-443-2355 or [jrolling@syr.edu](mailto:jrolling@syr.edu)

School of Education contacts: Carol Radin or Pam Hachey, Academic Advisors, 111 Waverly Avenue, Suite 230. 315-443-9319.

College of Visual & Performing Arts contact: Michele Buza, Academic Advisor, 204 Crouse College, 315-443-2517.

The Bachelor of Fine Arts (B.F.A.) degree program in art education emphasizes the studio arts as an exploration of the ideas, materials, and aesthetics through which we shape meanings, negotiate identity and organize society. Students will obtain an expertise in the development of arts-based and design-oriented curricula linked to national and New York State learning standards for the visual arts and promoting multiliteracies, inclusivity, critical inquiry and social responsibility.

In this program, students dually enroll in the College of Visual and Performing Arts and the School of Education. Studio arts courses and interdisciplinary electives are encouraged in combination with educational theory and cultural foundations as students prepare to be professional teachers of art. At a minimum, the B.F.A. degree in art education can be earned with the satisfactory completion of 127 credits (129 for anyone who enters the program fall 2011 or later).

In the junior year of the program, students have the opportunity to teach art lessons to children ages 5 to 15 in weekly workshops that prepare you for student teaching in local schools in your senior year. The Syracuse University Student Art Education Association, a chapter of the National Art Education Association, is open to both undergraduate and graduate students in art education. This organization is dedicated to offering preservice art teachers, as well

as any interested art and preservice education students, opportunities to enrich their pedagogical practice by facilitating social and networking opportunities for professional development, hosting guest speakers, and promoting and practicing outreach and community service through the arts.

After passing the requisite New York State exams (or state-specific certification exam requirements if you plan to teach in another state), you will be eligible for initial certification as an art teacher in all grades. Career services are available through the School of Education.

## PROGRAM REQUIREMENTS

Foundation 30 credits

Professional education 36 credits

Studio concentration 21 credits

Art history 6 credits

Academic electives 16 credits (15 credits for anyone entering the program fall 2011 or later)

Studio electives 15 credits

Academic requirements (WRT 205) 3 credits

Total credits 127 (129 for anyone entering the program fall 2011 or later)

### First Year, Fall Semester

ART 101 First-year Colloquium (0 credits)

WRT 105 Writing Studio 1 (3 credits)

FND Studio (6 credits)

Art or design history foundations (3 credits)

Academic electives (3-6 credits)

Total credits 15-18

### First Year, Spring Semester

Art or design history (3 credits)

FND studio (3 credits)

FND studio (3 credits)

Academic electives (3-6 credits)

WRT 205 Writing Studio 2 (3 credits)

Total credits 15-18

### Sophomore Year, Fall Semester

AED 215 Foundations of Art Education (3 credits)

Studio breadth (3 credits)

Studio depth (3 credits)

Art history (3 credits)

Academic electives (6 credits)

Total credits 15

### Sophomore Year, Spring Semester

EDU 204 Learning in Inclusive Classrooms (4 credits)

Studio breadth (6 credits)

Studio depth (3 credits)

Academic elective (3 credits)

Total credits 16

### Junior Year, Fall Semester

EDU 304 Study of Teaching (4 credits)

EDU 301 Methods and Practice in Teaching Art (3 credits)

EDU 301 Lab (Saturday workshops) (0 credits)

Studio breadth (3 credits)

Studio depth (3 credits)

Academic elective (3 credits)

Total credits 16

### Junior Year, Spring Semester

RED 326 Literacy Across the Curriculum (4 credits)

EDU 302 Methods and Curriculum in Teaching Art (3 credits)

EDU 301 Lab (Saturday workshops) (0 credits)

Studio depth (6 credits)

Academic elective (3 credits)

Total credits 16

### Senior Year, Fall Semester

Academic elective (3 credits)

Studio breadth (3 credits)

Studio depth (6 credits)

Art history (3 credits)

Total credits 15

### Senior Year, Spring Semester

AED 510 Special Problems in Art Education (3 credits)

EDU 508 Student Teaching (12 credits)

Academic Elective (1 credit--not required for those entering the program fall 2011 or later)

SPE 412 Adapting Instruction for Diverse Student Needs (3 credits--ONLY required for those entering the program fall 2011 or later)

Total credits 15 (18--for anyone entering the program fall 2011 or later)

One academic elective course must be taken in each of the following areas:

- Mathematics: (MAT 117 or higher) (3 credits)
- Natural Science: (BIO, CHE, AST, EAR, PHY, GEO 155, SCI 104 or 105) (3 credits)
- Humanities (Other than arts related) (3 credits)
- Social Science: (Other than history or psychology) (3 credits)
- Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study. If requirement has already been met, one 3-credit liberal arts elective must be taken in its place.

Required Child Health And Life Safety Seminar Covering The Following Topics:

Identifying/reporting child abuse

Violence prevention

Child abduction prevention

Highway/general safety

Alcohol/drug/tobacco prevention

Fire and arson prevention

Consult with the School of Education, 111 Waverly Avenue, suite 230, regarding other New York State requirements for graduation and certification.

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## Biology Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Biology and Secondary Science Education (Biology) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Biology (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Chemistry Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Chemistry and Secondary Science Education (Chemistry) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Chemistry (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Disabilities Studies Minor

Contact: Steven J. Taylor, 805 S. Crouse Ave., 315-443-3851 or [staylo01@syr.edu](mailto:staylo01@syr.edu)

The minor in Disability Studies focuses on disability as a social and cultural phenomenon, identity, social construct, and metaphor. Disability Studies applies social, cultural, historical, legal, philosophical, and humanities perspectives to understanding disability in society. Topics covered in Disability Studies include disability law and policy, the sociology, anthropology, geography, and history of disability, the intersection between disability and race, gender, sexuality, and class, the representation of disability in literature, the media, and popular culture, advocacy and self-advocacy, and assistive technology and accommodations for people with disabilities. The Disability Studies minor does not focus on instructional or clinical approaches to disability, but can complement the studies of students in these programs.

The minor requires 18 credits, with 12 credits in Disability Studies courses and 6 credits of electives. At least 12 credits must be taken in 300 level or above courses. Courses must be approved by the student's advisor in Disability Studies. Courses in the minor may be able to be used to fulfill requirements in students' home schools and colleges, at their discretion.

**Requirements For Admission:**

A minimum grade point average of 2.8 and a one-to-two page personal statement describing the student's interest in the minor in Disability Studies.

Restrictions on Applications: None. Students from any Syracuse University undergraduate program can apply for the minor in Disability Studies.

### Core Courses:

Students must take a minimum of 12 credits in Disability Studies courses.

- DSP/SOC/WGS 432 Gender and Disability (3 credits)
- DSP/SOC/WGS 438 Disability & Popular Culture (3 credits)
- DSP/SOC 426 Representations of Ability & Disability (3 credits)
- DSP/SOC 440 Sociology of Disability (submitted to SCC) (3 credits)
- DSP/SPE 357 Deafness and Disability (submitted to SCC) (3 credits)
- DSP 475 Internship in Disability Policy (submitted to SCC) (3 credits)

With the approval of the minor advisor, students may use credits from other Syracuse University courses without a DSP prefix to fulfill the requirement for 12 credits in core courses.

### Electives:

Students may take up to 6 credits in electives, subject to the approval of an advisor. Possible courses include, among others:

- CFE/DSP/WGS 362 Youth, Schooling and Popular Culture (3 credits)
- CFE/WGS 444 Schooling and Diversity (3 credits)
- WRT 428 Studies in Composition, Rhetoric, and Literacy (3 credits)
- WRT 440 Studies in the Politics of Language and Writing (3 credits)
- SOC/WGS 355 Sociology of Health and Illness (3 credits)
- SOC/WGS 364 Aging and Society (3 credits)
- SOC/WGS 433 Race, Class, and Gender (3 credits)
- SWK/WGS 326 Human Diversity in Social Contexts (3 credits)
- ANT/WGS 455 Culture and AIDS (3 credits)
- GEO 372 Political Geography (3 credits)
- PSC 328/WGS 318 American Social Movements (3 credits)

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## Earth Science Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Earth Science and Secondary Science Education (Earth Science) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Earth Science (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Economics Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Economics and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Education Studies Minor

Contact: George Theoharis, 163 Huntington Hall, 315-443-9079 or [gtheohar@syr.edu](mailto:gtheohar@syr.edu)

Education studies provide useful skills and experiences for students not enrolled in the School of Education, who go on to pursue careers in communication, business, science, or the arts. The minor in education is purposely broad in scope to allow students to accomplish any and all of the following objectives: (1) to explore education as a professional field of study, (2) to learn about issues in and the practice of education, (3) to prepare for graduate programs in education and related professional fields, and (4) to develop experience in direct work with children and adults through education and counseling.

The minor alone does not provide teacher certification. Students who want to complete prerequisites that will help them more expeditiously complete a master's degree in teaching, counseling, instructional development, or other related education fields should consult with a faculty advisor in education about their career plans. Students interested in teacher certification through an SU undergraduate program must enroll in one of the teaching preparation programs offered by the School of Education (in some cases with another SU college).

Course selection for the minor should be done in consultation with the minor advisor. The minor will consist of 18 credits, including general courses in education and several that are focused on a particular area of education. At least 12 credits must be 300 level or above.

A 2.5 grade point average is required for admittance to the minor.

Core Requirements (minimum 6 credits):

Students must take:

- EDU 310 The American School (3 credits)

Students will take one of the options below:

- EDU/DSP 203 Introduction to Inclusive Schooling (3 credits) OR
- EDU 304 The Study of Teaching (4 credits)

ELECTIVES (12 credits):

Note: Below is a list of possible electives for the education studies minor. Some of these courses are offered every semester and some are offered less regularly. Students, in consultation with the minor advisor, will design a program to include the electives that best meets their interests from the list below or other possible education courses such as selective topics courses where there are new ones offered regularly. Courses subject to availability and permission may be required from the department for entry into some of them.

- AED 211 Creative Classroom: Studio Inquiry (3 credits)
- AED 317 Philosophy & Foundations of Art Education Practice (3 credits)
- ASL 101 American Sign Language I (4 credits)
- ASL 102 American Sign Language II (4 credits)
- ASL 201 American Sign Language III (4 credits)
- CFE 362/662 Youth, Schooling, and Popular Culture (3 credits)
- CFE 444 Schooling and Diversity (3 credits)
- COU 585 General Counseling Methods (3 credits)
- DSP 357 Deafness and Disability (3 credits)
- DSP 432 Gender and Disability (3 credits)
- DSP 438 Disability and Popular Culture (3 credits)
- DSP 440 Sociology of Disability (3 credits)
- EDU 204 Principles of Learning in Inclusive Classrooms (4 credits) OR
- EDU 303 Teaching and Learning for Inclusive Schooling (3 credits)
- EDU 270, 470 Experience Credit (1-3 credits)
- EDU 290, 490 Independent Study (1-3 credits)
- EDU 221 Education for Transformation (3 credits)
- EDU 321 International Education for Transformation (3 credits)
- EDU 355 Fundamentals of Teaching for Non-Majors (3 credits)
- EDU 431 Art in the Classroom (1 credit)
- EDU 432 Music in the Classroom (1 credit)
- EDU 433 Speech and Drama in the Classroom (1 credit)
- ELL 301 Tutoring English Learners in Schools Within the US and Abroad (3 credits)
- HEA 332 Personal Health & Safety (3 credits)
- IDE 456 Computers as Critical Thinking Tools (3 credits)
- IDE 552 Digital Media Production (3 credits)
- MUE 215 Foundations of Music Education (3 credits)
- PPE 177 Introduction to Physical Education (3 credits)
- RED 547 Children's Literature (3 credits)
- RED 511 Adolescent Literature (3 credits)
- SED 522 Study of Social Studies (3 credits)
- SPE 311 Perspectives on Disabilities (3 credits)

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## English And Textual Studies Secondary Teacher Preparation

Combined Bachelor's/Master's Degrees in English and Textual Studies and Secondary (English) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall, [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for English Language Arts (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History(TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## English Education

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvsradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

#### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

### Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

## Page 2 Of English Education

Contact: Marcelle Haddix, 200 Huntington Hall, 315-443-4755 or mhaddix@syr.edu

In addition to the professional education requirements, students in English education complete a major in English and Textual Studies and the following requirements:

## Core Requirements

Secondary English education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- WRT 205 Writing Studio 2 OR
- WRT 209 Writing Studio 2 (Honors) (3 credits)
- One mathematics (MAT) course from Liberal Arts Core Quantitative Skills List (3 credits)
- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts related course within Arts and Sciences (HOA or HOM, or other approved humanities course focusing on one or more of the arts) (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study

## English Content

English Education students must complete the English and Textual Studies major as defined by the English Department. Twenty-four credits of the 30 required must be upper-division (300 level and above).

English Education students must include the following courses (not required of other ETS majors) within their majors:

- ETS 325 History and Varieties of English (3 credits)
- One course concentrating on Shakespeare (3 credits)
- One course with a multicultural (non-Western/ American minority) emphasis (3 credits)
- One upper division WRT course, chosen from WRT 301, 303, 307, OR 428 (3 credits)

In addition, students must complete one speech communication course from the following:

- CRS 225 Public Advocacy (3 credits)
- CRS 325 Presentational Speaking (3 credits)

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## Exercise Science Minor

Contact: Melissa Tobin, 209 Ernie Davis Hall, 315-443-9800; [mmtobin@syr.edu](mailto:mmtobin@syr.edu).

Students pursuing major degrees in other program areas may enroll in a minor in exercise science. The exercise science minor requires 18 credits. Students must maintain a minimum 2.5 GPA. To be admitted into the exercise science minor, students must submit a petition to their respective advisor, the chair of the exercise science program, and to the assistant dean for academic and student services in the School of Education.

BIO 216 & BIO 217 (Human Anatomy and Physiology) are prerequisites for many of the courses in this minor.

## Core Courses:

Section I: The following courses are required (6 credits):

- PPE 295 Introduction to Exercise Science (3 credits)
- PPE 497 Physiology of Exercise (3 credits)

Section II: Three of the following courses are required (9 credits):

- PPE 408 Analysis of Human Motion (3 credits)
- PPE 483/683 Scientific Principles of Conditioning (3 credits)
- PPE 514 Exercise and Aging (3 credits)
- PPE 515 Graded Exercise Testing and Interpretation (3 credits)
- PPE 517 Pathophysiology (3 credits)
- PPE 518 Cardiac Rehabilitation (3 credits)

Or Any 3 credit 500-level or higher course such as:

- Exercise in the Cell (3 credits)
- Obesity and Body Composition (3 credits)
- Metabolic Aspects of Exercise (3 credits)
- Control of Ventilation in Exercise (3 credits)

Section III: One of the following courses is required\* (3 credits):

- PPE 385 Motor Behavior Across the Lifespan (3 credits)
- PPE 486 Prevention and Care of Athletic Injuries (3 credits)
- HEA 485 Worksite Health Promotion (3 credits)

\*Or any of the courses listed in Section II not already taken.

Total Credits: 18

Time to Completion Requirement:

The undergraduate minor in exercise science must be completed within five years of declaration if the student is enrolled in an undergraduate degree granting program.

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## Exercise Science Minor (Dance)

Contact: 314-443-2115, 820 Comstock Ave/201 Women's Building

### Requirements For Admission And Restrictions

The minor in dance is available to matriculated, undergraduate students from all Syracuse University schools and colleges, provided that they have the permission of their home school or college, and have a cumulative GPA of at least 2.8. Some background knowledge and experience in dance is seen as beneficial for prospective dance minor applicants, but not required.

Due to course sequencing and enrollment limitations, students must have a minimum of four semesters available to complete the minor requirements. Any student wishing to apply for the Dance Minor after the Spring semester of her/his sophomore year, must have one or more courses completed, or in progress.

### The Program

#### Pre-requisites

DTS239 Beginning Ballet\* (1 credit)

#### Required Courses

DTS241 Beginning Ballet II\* (1 credit)  
DTS242 Intermediate Ballet I or II (1 credit)  
DTS244 Beginning Modern\* (1 credit)  
DTS246/247 Intermediate Modern I or II (1 credit)  
DTS368 Dance History (3 credits)  
DTS423 Choreography (3 credits)  
PPE 395 Structural Kinesiology (3 credits)

#### Choice of Two Courses

DTS233 African Dance (1 credit)  
DTS228 Ballroom Dance (1 credit)  
DTS235 Beginning Jazz (1 credit)  
DTS236 Beginning Jazz II (1 credit)  
DTS234 Beginning Tap (1 credit)  
DTS elective course (1 credit)

#### Choice of Two Courses

PPE 486 Prevention & Care Athletic Injury (3 credits)  
NSD 425 Nutrition for Fitness and Sports\*\* (3 credits)  
OR  
NSD 447 Weight Management, Obesity, and Disordered Eating\*\*\* (3 credits)

Total Credits 18

\*May be waived if you exhibit advanced technique. You may then choose, with proper advisement, additional course work to ensure a total of 18 credits.

\*\*NSD 225 Nutrition in Health is a prerequisite for both NSD425 and NSD447

### To Declare A Minor In Dance:

1. Check with your home school or college office, to make sure you have room in your program for the required number of dance courses. Also reconfirm that you have a cumulative GPA of at least 2.8.
2. Pick up a minor declaration form in Women's Building, Room 201.
3. Bring the minor declaration form to WB201 before the deadline. If you are approved, you will be notified by email, and asked to retrieve the form.

4. Take the signed form to your home school or college office. They will approve the declaration, and give you instructions about how to get the minor officially posted to your SU record.
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## Geography Secondary Teacher Preparation

Combined Bachelor's/Master's Degrees in Geography and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Health And Exercise Science

Contact: Tom Brutsaert, Chair, 201 Women's Building, 820 Comstock Avenue, 315-443-2114 or [tbrutsa@syr.edu](mailto:tbrutsa@syr.edu); OR Melissa Tobin, Undergraduate Advisor, 315-443-9800 or [mmtobin@syr.edu](mailto:mmtobin@syr.edu).

The B.S. degree in health and exercise science is a non-teaching certification program offering study in the physiological, mechanical and psychological aspects of physical activity and health behavior. There are three tracks from which to choose in health and exercise science.

The general health and exercise science track prepares students for careers in community health and fitness, corporate fitness, clinical physiology, research, medicine, sports medicine and others. The pre-physical therapy track allows students the opportunity to interchange some courses in order to meet the requirements of graduate study in physical therapy (DPT) while still leaving options open to the other possible career paths listed above. The third track, the 3+3 program with SUNY Upstate Medical University (UMU), allows students the opportunity to spend three years in our health and exercise science program focusing on physical therapy preparation and then continue with three years in the Doctorate of Physical Therapy (DPT) program at SUNY UMU. Students transfer the first year of credits taken from SUNY UMU to SU which then completes their fourth year at SU and grants them a B.S. degree in health and exercise science.

### General Health And Exercise Science Program Requirements

#### Liberal Arts Requirements

WRT 105, WRT 205 Writing Studio I and II (6 credits)

WRT 307 or Advanced Writing Studio, or  
WRT 407 Advanced Workshop in Professional,  
Technical, or Disciplinary Writing (3 credits)  
CRS 225 or CRS 325 or CRS 435 Public Advocacy (3 credits)  
MAT 221 Elementary Probability and Statistics I (3 credits)  
MAT 194 and MAT 285 Precalculus, Calculus I  
or  
MAT 285, MAT 286 Calculus I and II (6 credits)

### Natural Sciences

BIO 121 General Biology II (4 credits)  
BIO 123 & BIO 124 General Biology II plus lab (3 credits+1 credit)  
BIO 216, BIO 217 Anatomy and Physiology I and II (8 credits)  
CHE 106, CHE 116 General Chemistry I and II (6 credits)  
CHE 107, CHE 117 General Chemistry Lab I and II (2 credits)  
NSD 225 Nutrition in Health (3 credits)

### Social Sciences

PSY 205 Foundation of Human Behavior (3 credits)  
PSY 223 Introduction to Cognitive Neuroscience or  
PSY 315 Drugs and Behavior or  
PSY 324 Development Biopsychology (3 credits)

### Professional Requirements

HEA 332 Personal Health and Safety (3 credits)  
HEA 335 First Aid (1 credit)  
HEA 336 Cardiopulmonary Resuscitation (1 credit)  
HEA 485 Worksite Health Promotion (3 credits)  
PPE 295 Introduction to Exercise Science (3 credits)  
PPE 408 Analysis of Human Motion (3 credits)  
PPE 435 Introduction to Sport Psychology (3 credits)  
PPE 483 Scientific Principles of Conditioning (3 credits)  
PPE 385 Motor Behavior Across the Lifespan (3 credits)  
PPE 486 Prevention and Care of Athletic Injury (3 credits)  
PPE 497 Physiology of Exercise (3 credits)  
PPE 470 Experience Credit (6 credits)  
Two PPE electives any level (6 credits)  
Three PPE electives numbered 500 or higher (9 credits)

### Electives

Two approved humanities or social science electives (6 credits)  
Two approved Arts and Sciences electives (6 credits)  
Three open electives (9 credits)

**Total Credits 125**

Note: Students interested in pursuing an advanced degree in Physical Therapy (and not interested in following the 3+3 program described below) will take 8 credits of physics (includes labs) and 3 credits of child psychology, as required for entrance into physical therapy graduate level programs. These alternate classes will fill elective slots in the exercise science undergraduate track.

### Health And Exercise Science Requirements For The 3+3 DPT PROGRAM With SUNY UPSTATE MEDICAL UNIVERSITY

The Changes In Curriculum From The General Health And Exercise Track Is As Follows:

Two PPE electives (6 credits)  
No open electives  
One Arts & Science elective (3 credits)  
Child Psychology (3 credits)  
Two Math: Calculus & Statistics (6 credits)  
Physics 101 (4 credits)  
Physics 102 (4 credits)

## Senior Year SUNY Upstate Medical University

PHYT 601 Gross Anatomy (6 credits)  
PHYT 621 Foundations Patient/Client Management (3 credits)  
PHYT 611 Bioscience I (5 credits)  
PHYT 612 Bioscience II (2 credits)  
PHYT 625 Movement Analysis I (4 credits)  
PHYT 605 Neuroscience (6 credits)  
PHYT 616 Interventions II (2 credits)

SU credits 99  
SUNY UMU credits 28  
Total Credits 127

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## Health And Physical Education

Contact: 315-443-2115, 820 Comstock Ave/ 201 Women's Bldg

Syracuse University's Bachelor of Science (B.S.) degree in Health and Physical Education meets the academic requirements for New York State initial certification, in both Health AND Physical Education, therefore providing graduates with two New York State teaching certifications (all grades in Health Education and all grades in Physical Education) as well as teacher certification in states with reciprocal agreements. The New York Physical Education certification also qualifies teacher candidates to coach any sport in any school (7-12) in the state of New York.

The degree program emphasizes teaching methods that encourage all children to embrace a physically active and healthy lifestyle with a focus on urban and inclusive settings. The unique location of Syracuse University and the diversity of the surrounding community provide numerous authentic field experiences in urban and suburban settings alike starting in the first year. The School of Education affords its teacher candidates the advantages of resources found only at a major research university. Our undergraduate studies are enhanced with a strong liberal arts core. Our small class sizes allow teacher candidates to develop strong, personal relationships with their professors, advisors, and peers.

Teacher candidates spend a minimum of 25 hours in the public schools each academic year culminating with full time student teaching experiences in both health education and physical education in private and public school settings, meeting the time requirements for both as mandated by the NYSED.

The Dual Certification in Health and Physical Education will require a minimum of 136 credits hours and requires teacher candidates to attain a 2.8 GPA by senior year student teaching. Student teaching requirements include successful completion of the Child Health and Life Safety Seminar and CPR/AED and First Aid certification.

### Program Requirements

#### LIBERAL ARTS REQUIREMENTS

MAT 121/221: Prob. and Statistics I (3 credits)  
WRT 105: Writing Studio I (3 credits)  
WRT 205: Writing Studio II (3 credits)  
PSY 205: Foundation in Human Behavior (3 credits)  
CRS 225: Public Advocacy  
OR CRS 325: Presentational Speaking (3 credits)  
Humanities elective (any) (3 credits)  
Humanities elective (PHI, REL or LIT only) (3 credits)  
History (3 credits)  
Arts & Sciences elective (any) (6 credits)  
Arts and Science elective (3 credits of health-related courses such as (QSX 111, 112, MES/ANT/HTW 382, ANT 357, 365,382, 455 or PSY/WGS 329)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study. If Language requirement has been met, a 3-credit liberal arts elective must be taken in its place.

#### Natural Sciences

BIO 121: General Biology I (4 credits)  
NSD 225: Nutrition in Health (3 credits)

#### Professional Physical Education

PPE 177: Intro Health & Physical Education (3 credits)  
PPE 235: Teaching Health-Related Fitness (3 credits)  
PPE 295: Introduction to Exercise Science (3 credits)

PPE 381: Phys. Ed. Methods: Elementary (3 credits)  
PPE 383: Phys. Ed. Methods: Secondary (3 credits)  
PPE 385: Motor Behavior Across the Lifespan (3 credits)  
PPE 394: Assessment & Curriculum in Health & Physical Education (3 credits)  
PPE 395: Structural Kinesiology  
PPE 408: Analysis of Human Motion (Biomechanics) (3 credits)  
PPE 415: Teacher Development in Health and Physical Education (1 credit)  
PPE 481: Adapted Physical Education (3 credits)

#### Professional Health Education

CFS 388: Human Sexuality (3 credits)  
HEA 332: Personal Health & Safety (3 credits)  
HEA 445: Methods of Teaching Health (3 credits)  
HTW 303: Community/Environmental Health (3 credits)  
HTW 318: Alcohol, Other Drugs, Sex, and Gambling Addition OR  
PSY 315: Drugs and Human Behavior (3 credits)

#### Professional Education

EDU 204: Princ of Learning in Incl Classrm (4 credits)  
EDU 304: Study of Teaching (4 credits)  
EDU 508: Student Teaching K-12 (12 credits)  
RED 326: Literacy Across Curriculum (4 credits)  
SPE 311: Perspectives on Disabilities (3 credits)  
CFE/WSP 444: Schooling & Diversity OR  
EDU 310: American School (3 credits)

#### Technology

(choose 3 credits)

IDE 201: Integrating Tech in Classroom I (1 credit)  
IDE 301: Integrating Tech in Classroom II (1 credit)  
IDE 401: Integrating Tech in Classroom III (1 credit)

#### Activity Courses

(10 credits total)

##### Required Activity Courses

PED 240: Individual/Dual Sports (1 credit)  
PED 250: Team Sports (1 credit)  
PED 262: Gymnastics (1 credit)  
PED 209: Adventure Activities 1 (1 credit)  
3 Credits of PED activity electives (choose three is consultation with your advisor)

#### Aquatics

(choose 2 credits)

PED 211: Beginning Swimming (1 credit)  
PED 212: Intermediate Swimming (1 credit)  
PED 213: Advanced Swimming (1 credit)  
PED 216: \*Water Safety Instruction (2 credits)  
PED 217: Lifeguarding (2 credit)  
\*recommend WSI certification prior to student teaching

#### Dance/Aesthetics

(choose one)

DTS 231: Intro to Dance (1 credit)  
DTS 228: Social Ballroom Dance (1 credit)  
DTS 233: African Dance (1 credit)

Open Elective: any courses (3 credits)

Required child health and life safety seminar covering the following topics:

Identifying/reporting child abuse  
Violence prevention

Child abduction prevention  
Highway/general safety  
Alcohol/drug/tobacco prevention  
Fire and arson prevention

\*CPR/AED/FA certification must be valid during student teaching  
\*WSI certification recommended prior to student teaching

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## History Secondary Teacher Preparation

Combined Bachelor's/Master's Degrees in History and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Inclusive Early Childhood Special Education

Contact: Mara Sapon-Shevin, 136 Huntington Hall, 315-443-2685 , [saponsh@syr.edu](mailto:saponsh@syr.edu)

This B.S. degree program is a dual program between the School of Education and the David B. Falk College of Sport and Human Dynamics — with the School of Education as the home school. This program provides you with the professional background and a solid core of liberal arts distribution and concentration coursework. A cornerstone of the program is the extensive and varied series of field experiences it offers, coordinating coursework with fieldwork in the schools as early as the first year of study. Many schools and childcare centers in the Syracuse area are at the forefront of inclusive education. Through our close partnerships with local schools and early childhood centers that welcome all students, and with our wide network of urban, suburban, and rural school affiliations, we provide a broad range of opportunities for getting the most out of field experiences.

### PROGRAM REQUIREMENTS

Program requirements include liberal arts skills, a concentration in social/behavioral science with emphasis on child and family studies, and professional coursework. The program typically requires a minimum of 135 credits. The length varies and can be more than 138 credits, depending on the student's mathematics and foreign language background, and other choices made by the student. In most cases, students enroll for more than 15 credits in a semester and/or take summer courses (at SU or other colleges) to complete the degree within four years. Therefore, prospective students not already enrolled in the School of Education are encouraged to consult with the School of Education as early as possible.

Note: Because of the professional education sequence, the study abroad semester for students completing in four years must be spring of the junior year.

#### Liberal Arts Requirements:

- WRT 105 or WRT 109, and (3 credits)
- WRT 205 or WRT 209 (3 credits)
- Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or passing level three of high school study
- Algebra competency or MAT 112 (0-3 credits)
- MAT 117 and MAT 118 (6 credits)
- SCI 104 and SCI 105 (6 credits)
- U.S. History (3 credits)
- History II (diversity within the U.S. or Global History) (3 credits)
- Geography (3 credits)
- Citizenship, Economics, and Government (3 credits)
- Global Perspectives (3 credits)
- Literature (6 credits)
- Other liberal arts breadth (3 credits) Choose one course from the program's list of approved fine arts, philosophy, religion, mathematics or scientific perspectives courses.

#### Child and Family Studies/Social Science Concentration:

- CFS 201 Family Development
- CFS 202 Development of Children and Youth (3 credits)
- CFS 331 Play, Development and Early Education (3 credits)
- CFS 345 The Developing Infant (3 credits)
- CFS 395 Seminar: Family and Child Intervention (3 credits)
- CFS 367 Child and Family in Cross-Cultural Perspectives OR CFS 371 Latino Families and Children (3 credits)
- CFS 447 Principles and Practices in Parenting or CFS 479 Power, Conflict, Violence and the Family or CFS 487 Critical Issues in Family Development (3 credits)
- Social sciences: Three social science courses used to meet distribution requirements above. At least one must be 300 level (9 credits)

#### Professional Education Requirements:

- EDU 203 Introduction to Inclusive Schooling (3 credits)
- EDU 201 Practicum in Pre-K Inclusive Education (1 credit)
- SPE 311 Perspectives on Disabilities (3 credits)
- IDE 201 Integrating Technology into Instruction I (1 credit)
- CFS 432 Foundations and Principles of Early Childhood Education (3 credits)
- CFS 335 Issues and Perspectives in Early Childhood Education (3 credits)
- CSD 303 Communication in the Classroom (3 credits)

#### Arts in Education (complete 2 credits)

- EDU 431 Art in the Classroom 1 (1 credit)
- EDU 432 Music in the Classroom 1 (1 credit)
- EDU 433 Speech and Drama in the Classroom 1 (1 credit)

#### ASSESSMENT

Both this program and the teaching profession are demanding, requiring not only appropriate attitudes about children, and skills in working with them, but also knowledge of the content to be taught, excellent writing skills, critical thinking skills, and much more. Students' progress is reviewed several times through the program against specific proficiencies and other assessment criteria. Effective for those entering the program Fall 2014 or later, to be eligible for Block I, students must have a 3.0 cumulative GPA a 3.0 average for and no grade below a B- in EDU 203, EDU 201, SPE 311, and CFS 432 (if taken before Block I); a B- or better grade in each writing course taken; and a B- or better average with no grade below a C in both the two required mathematics courses and the two required natural science courses, with at least one B- grade in each before entering Block I. In addition, they must have satisfactory ratings on the proficiencies and dispositions that are part of the professional courses and field experiences. Reviews also take place to determine eligibility to enter subsequent professional blocks, and additional information about this is available from the program faculty teaching in the blocks.

#### Block I

- EED 314 Teaching Strategies for Inclusive Education (3 credits)
- EED 325 Primary Grade Literacy Methods and Curriculum (3 credits)
- EED 361 Block I Field Experience and Seminar (3 credits)

#### Block II

- EED 323 Primary Grade Math Methods and Curriculum (3 credits)
- EED 328 Block II Field Experience (3 credits)
- EED 336 Elementary Social Studies Methods and Curriculum (3 credits)
- EED 362 Block II Field Seminar (1 credit)
- SPE 324 Differentiation for Inclusive Education (3 credits)
- EDU 434 Creative Movement for the Classroom (1 credit)

IDE 301 Integrating Technology into Instruction II (1 credit)

#### Early Childhood Block III

EED 400 Early Childhood Integrated Methods I (3 credits)

EED 400 Early Childhood Integrated Methods II (3 credits)

EED 400 Early Childhood Block III Field Experience (3 credits)

IDE 401 Integrating Technology into Instruction III (1 credit)

#### Student Teaching

EED 464 Seminar/Student Teaching/Inclusive Education(3 credits)

EDU 508 Student Teaching/Inclusive Early Childhood Special Education (12 credits)

SPE 434 Collaborative Teaching for Inclusive Education (3 credits)

Also required: Safe and Healthy Learning Environments (1 credit), or equivalent, which includes the following topics: Identifying/reporting child abuse, violence prevention, child abduction prevention, highway/general safety, alcohol/drug/tobacco prevention, fire and arson prevention, and training related to the Dignity for All Students (DASA) Act.

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## Inclusive Elementary And Special Education

Contact: Julie Causton, Program Coordinator, 315-443-2685 or [jcauston@syr.edu](mailto:jcauston@syr.edu).

This innovative program is designed to prepare graduates for careers in classrooms (grades 1-6) that serve an increasingly diverse student population. In addition to liberal arts distribution courses and depth in a liberal arts area, students take professional courses that integrate within them material on children with both typical and “special” needs who come from diverse cultural backgrounds. Supervised field experiences take place throughout the program at a variety of Syracuse area settings, and include placements in schools that are at the forefront of inclusive education.

### PROGRAM REQUIREMENTS

Program requirements include liberal arts skills and distribution courses, a concentration or major of no less than 30 credits in an approved liberal arts and sciences area, and professional coursework. The program typically requires between 133 and 145 credits. The length varies and can be more than 145 credits, depending on the student’s skill background, the chosen liberal arts concentration or major, and other choices made by the student. In most cases, students enroll for more than 15 credits in a semester and/or take summer courses (at SU or other colleges) to complete the degree within four years. Therefore, prospective students not already enrolled in the School of Education are encouraged to consult with the School of Education as early as possible. Please note that in choosing courses to meet the Liberal Arts requirements, students must keep their choice of liberal arts concentration or major in mind, including required number of upper division courses, and, whenever possible, choose courses that can also be used toward that concentration or major.

#### Liberal Arts Requirements:

- WRT 105 or WRT 109 (3 credits)
- WRT 205 or WRT 209 (3 credits)
- Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study
- Algebra competency or MAT 112 (0-3 credits)
- MAT 117 and MAT 118 (6 credits)
- SCI 104 and SCI 105 (6 credits)
- EDU 310 (3 credits)
- CFE 444 (3 credits)
- U.S. History (3 credits)
- History II or (Diversity within the U.S or Global History) (3 credits)
- Geography (3 credits)
- Citizenship, Economics, and Government (3 credits)
- Global Perspectives (3 credits)
- Literature (6 credits)
- Other liberal arts breadth (required only for those completing interdisciplinary concentrations.) Choose one course from the program’s list of approved fine arts, philosophy, religion, mathematics or scientific perspectives courses (3credits)

The program requires students to complete a 30-credit liberal arts concentration or major. This liberal arts area must be chosen as early as possible, so that maximum overlap between the liberal arts/general education requirements (see above) and the concentration/major may be achieved.

#### Concentrations Available:

- Human Thought and Expression concentration: study of literature, history, philosophy, religion, gender and ethnic studies, history and the arts, and other humanities;
- People, Places and Societies concentration: study of anthropology, sociology, gender and ethnic studies, international relations, economics, geography, history, political science, and other social sciences;
- Mathematics
- Natural Sciences

## Majors Available:

- African American Studies
- English and Textual Studies;
- History
- Political Science
- Sociology

A guide to assist in this choice is available from the Department of Teaching and Leadership, 150 Huntington Hall, or the Office of Academic and Student Services, 111 Waverly Avenue, suite 230.

## Professional Education Requirements:

- EDU 203 Introduction to Inclusive Schooling (3 credits)
- EDU 201 Practicum in Inclusive Pre-K (1 credit)
- EDU 303 Teaching and Learning for Inclusive Schooling (3 credits)
- SPE 311 Perspectives on Disabilities (3 credits)
- CSD 303 Communication in the Classroom 3 (3 credits)
- IDE 201 Integrating Technology into Instruction I (1 credit)

## Arts in Education (complete 2 credits)

- EDU 431 Art in the Classroom 1 (1 credit)
- EDU 432 Music in the Classroom 1 (1 credit)
- EDU 433 Speech and Drama in the Classroom 1 (1 credit)

## ASSESSMENT

Both this program and the teaching profession are demanding, requiring not only appropriate attitudes about children, and skills in working with them, but also knowledge of the content to be taught, excellent writing skills, critical thinking skills, and much more. Students' progress is reviewed several times through the program against specific proficiencies and other assessment criteria. Effective for those entering the program Fall 2014 or later, to be eligible for Block I, students must have a 3.0 cumulative GPA a 3.0 average for and no grade below a B- in EDU 203, EDU 201, SPE 311, and EDU 303; a B- or better grade in each writing course taken; and a B- or better average with no grade below a C in both the two required mathematics courses and the two required natural science courses, with at least one B- grade in each before entering Block I. In addition, they must have satisfactory ratings on the proficiencies and dispositions that are part of the professional courses and field experiences. Reviews also take place to determine eligibility to enter subsequent blocks, and additional information about this is available from the program faculty teaching in the blocks.

### Block I

- EED 314 Teaching Strategies for Inclusive Education (3 credits)
- EED 325 Primary Grades Literacy Methods and Curriculum (3 credits)
- EED 361 Block 1 Field Experience and Seminar (3 credits)

### Block II

- EED 323 Primary Grade Mathematics Methods and Curriculum (3 credits)
- EED 328 Block II Field Experience (3 credits)
- EED 336 Elementary Social Studies Methods and Curriculum (3 credits)
- EED 362 Block II Field Seminar (1 credit)
- SPE 324 Differentiation for Inclusive Education (3 credits)
- EDU 434 Creative Movement in the Classroom (1 credit)
- IDE 301 Integrating Technology into Instruction II (1 credit)

### Block III

- EED 337 Elementary Science Methods and Curriculum (3 credits)
- EED 363 Block III Field Seminar (3 credits)
- EED 423 Intermediate Grade Mathematics Methods and Curriculum (3 credits)
- EED 425 Intermediate Grade Literacy Methods and Curriculum (3 credits)
- EED 438 Block III Field Experience (3 credits)
- IDE 401 Integrating Technology into Instruction III (1 credit)

### Student Teaching Semester

- EDU 508 Student Teaching (12 credits)
- EED 464 Seminar/Student Teaching/Inclusive (3 credits)
- SPE 434 Collaborative Teaching for Inclusive Education (3 credits)

Also required: Safe and Healthy Learning Environments (1 credit), or equivalent, which includes the following topics: Identifying/reporting child abuse, violence prevention, child abduction prevention, highway/general safety, alcohol/drug/tobacco

## International Relations Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in International Relations and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Jewish Education

Coordinator: Corinne Roth Smith, Professor

157 Huntington Hall, 315-443-9321, [crsmith@syr.edu](mailto:crsmith@syr.edu)

The primary purpose of this minor is to better prepare SU undergraduates to teach in Jewish congregational schools, camps, community centers, youth organizations.

Admission:

- GPA 2.8 or above
- 1-2 page statement on why the individual would like to declare a minor in Jewish Education
- The JSP Director and Jewish Education Minor Coordinator will review each candidate's courses completed and professional disposition standards before recommending a student for a community internship. Those not approved will be asked to un-declare the minor.

Curriculum Requirements:

Core Courses: (6 credits)

JSP/REL 114 (3 cr.) The Bible

or

JSP/REL 215 (3 cr.) The Hebrew Bible

JSP/REL 135 (3 cr.) Introduction to Judaism

## Additional Judaic Studies Content (9 credits)

- Must be 300 level and above
- Must include courses cross-listed with JSP, including those offered abroad. Other courses with Judaic Studies content can be approved by the JSP director.
- One course in history, sociology or political science is strongly recommended.

## Pedagogy Courses (7-9 credits):

- EDU 303 (3 cr.) Teaching and Learning for Inclusive Schooling (includes field experience)
- or
- EDU 204 (4 cr.) Principles of Learning in Inclusive Classrooms (includes field experience)

Students in Teacher Preparation Programs will overlap this course with their education major.

- EDU 355 (3 cr.). Fundamentals of Teaching for Non-Majors (course to be regularized). Students in Teacher Preparation Programs may substitute a methods course from their teacher preparation area for this course.
- EDU 470 Experience Credit (Practicum in Jewish Education (1-2 cr.)) (non-teacher preparation majors complete two credits/semesters, and enroll concurrently with EDU 355; Teacher Preparation majors complete one credit/semester and enroll in their field specific methods course prior to or concurrent with EDU 470):
- The practicum semester(s) will include sessions during which congregational/agency educators convey supplementary information on Jewish traditions, modes of thought, and teaching strategies.

Total Credits: 22-24

Additional Hebrew requirement: Students must complete HEB 101 (4 cr.), or achieve placement test results placing them into HEB 102 or higher. (Students are not required to take HEB 102, however). This requirement must be completed before the internship semester.

Note: Students in the Inclusive Elementary and Special Education program can best fit the Judaic Studies courses into their curriculum if they are Human Thought and Expression concentrators.

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## Latino-Latin American Studies Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Latino-Latin American Studies and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior

year.

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## Mathematics Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Mathematics and Secondary Education (Math) Teacher Preparation Program

School of Education contact: Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall. [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for a New York Teaching certification for grades 7-12 in mathematics. It is an alternative to the existing undergraduate Arts and Sciences/Education dual programs in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title Mathematics. The second admission stage involves an application to graduate school. Each admission stage requires a 3.0 cumulative GPA and a 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Mathematics Education

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey ([pkhachey@syr.edu](mailto:pkhachey@syr.edu)) or Carol Radin ([cvradin@syr.edu](mailto:cvradin@syr.edu)), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)

- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

## PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

### The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

### Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

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## Page 2 Of Mathematics Education

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Contact: Joanna Masingila, 203 Carnegie Building, 315-443-1483, or [jomasing@syr.edu](mailto:jomasing@syr.edu)

In addition to the professional education requirements, students in mathematics education complete the Bachelor of Science in mathematics and the following requirements:

### Core Requirements

Mathematics education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- WRT 205 Writing Studio 2 OR
- WRT 209 Writing Studio 2 (Honors) (3 credits)
- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts related course within Arts and Sciences (HOA or HOM) or other approved humanities course focusing on one or more of the arts (3 credits)
- One humanities course (cannot be history (HST) or fine arts (FIA) (3 credits)
- One multicultural humanities or social science course two-course sequence in calculus-based physics (3 credits)
- Two course sequence in calculus-based physics (PHY 211, 212, 221 and 222) (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study

### Mathematics Content

- MAT 295 Calculus I (4 credits)
- MAT 375 Introduction to Abstract Mathematics (3 credits)
- MAT 296 Calculus II MAT (4 credits)
- MAT 331 First Course in Linear Algebra (3 credits)
- MAT 397 Calculus III (4 credits)
- MAT 412 Introduction to Real Analysis I (3 credits)
- MAT 512 Introduction to Real Analysis II (3 credits)
- MAT 521 Introduction to Probability and Statistics (3 credits)
- MAT 525 Mathematical Statistics OR
- MAT 526 Probability (3 credits)
- MAT 531 Second Course in Linear Algebra (3 credits)
- MAT 534 Introduction to Abstract Algebra (3 credits)
- MAT 541 Introduction to Number Theory (3 credits)
- MAT 551 Fundamental Concepts of Geometry (3 credits)
- MAT 593 History of Mathematics (3 credits)
- One 400 level or higher mathematics course, by advisement (3 credits)

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## Music Education

### Music Education (Dual Program)

Contact: John Coggiola, 110 Crouse College, 315-443-5896 or [jccoggio@syr.edu](mailto:jccoggio@syr.edu)

Education contacts: Carol Radin or Pam Hachey, Assistant Directors of Academic Advising, 111 Waverly Avenue, Suite 230, 315-443-9319.

College of Visual and Performing Arts contact: Marlene Lee, 200 Crouse College, 315-443-2517

The music education program, which leads to a Bachelor of Music degree, is designed to give students a strong foundation in musical and teaching skills and to enable them to obtain initial certification for public school teaching (all grades) in New York State and other states with which there are reciprocal arrangements.

Music education students are dually enrolled in the Setnor School of Music and the School of Education. They may elect one of five emphases: brass, choral/general, woodwind, percussion, or strings. By graduation, students are expected to have achieved competencies in all the musical disciplines (e.g., principal and secondary performance areas, music history and theory, sight-singing and dictation, and conducting and ensemble participation) in addition to teaching competencies in such areas as classroom management techniques and curriculum development skills. Students must have achieved a 3.0 average in music and education courses, with an overall GPA of at least 2.8 before being permitted to enter into the upper division sequence (junior year) and to student teach (senior year). Students also have opportunities to develop techniques of teaching general music as well as techniques for directing performance ensembles.

Academic credits are required in the following: 6 credits of social science (psychology or sociology), 3 credits in mathematics, 3 credits in the sciences, and 3 credits of multicultural humanities. Refer to the certification link for information about New York State certification. Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study. If requirement has already been met, one 3-credit liberal arts elective must be taken in its place.

**PROGRAM REQUIREMENTS\*** \* This is a general list of major requirements for the music education major. Depending on which emphasis students choose (brass, choral/general, woodwind, percussion, or strings), the order of the courses and total credits per semester may vary.

#### First Year, Fall Semester

Weekly Student Convocation (0 credits)  
Principal performance area (2 credits)  
MHL 168 European Music Before 1750(3 credits)  
MTC 145Diatonic Harmony I (3 credits)  
MTC 147Ear Training I (1 credit)  
SED 340Participation in the Professional Development School (0 credits)  
Marching band (ensemble) or  
AMC 545Diction in Singing I (1-2 credits)  
Piano or Voice (1 credit)  
Ensemble(s) (1 credit)  
WRT 105Writing Studio 1 (3 credits)  
Total credits: 15-16

#### First Year, Spring Semester

Weekly Student Convocation (0 credits)  
Principal performance area (2 credits)  
MHL 267European Music 1750-1914 (3 credits)  
MTC 146Diatonic Harmony II (3 credits)  
MTC 148Ear Training II (1 credit)  
MUE 115Technology in Music Education (2 credits)  
AMC 546Diction in Singing II (choral/general emphasis only) (2 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Ensemble(s) (1 credit)  
Piano or voice (1 credit)  
WRT 205Writing Studio 2 (3 credits)  
Total credits: 16-18

#### Sophomore Year, Fall Semester

Weekly Student Convocation (0 credits)  
Principal performance area (2 credits)  
Secondary performance area (1 credit)  
MHL 268 European and American Music since 1914 (3 credits)  
MTC 245Chromatic Harmony I (3 credits)  
MTC 247Ear Training III (1 credit)

MUE 310Field Experience in Music Education (1 credit)  
MUE 215Foundations of Music Education (3 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Ensemble(s) (1 credit)  
Academic (3 credits)  
Total credits: 18

#### Sophomore Year, Spring Semester

Weekly Student Convocation (0 credits)  
Principal performance area (2 credits)  
Secondary performance area (1 credit)  
MHL 185Introduction to World Music (3 credits)  
MTC 246Chromatic Harmony II (3 credits)  
MTC 248Ear Training IV (1 credit)  
MUE 310Field Experience in Music Education (1 credit)  
SED 340Participation in the Professional Development School (0 credits)  
Ensemble(s) (1 credit)  
Academics (6 credits)  
Total credits: 18

#### Junior Year, Fall Semester

Weekly Student Convocation (0 credits)  
Principal performance area (1 credit)  
Secondary performance area (1 credit)  
CTG 545Basic Conducting (2 credits)  
EDU 204Principles of Learning in Inclusive Classrooms (3 credits)  
MUE 333Music in the Elementary School (2 credits)  
EDU 310The American School (3 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Instrumental Methods (1 credit)  
Jazz elective (1 credit)  
Ensemble(s) (1 credit)  
Academic (3 credits)  
Total credits: 18

#### Junior Year, Spring Semester

Weekly Student Convocation (0 credits)  
Principal performance area (1 credit)  
Secondary performance area (1 credit)  
MUE 334Methods and Materials in General Music (2 credits)  
MUE 518Marching Band Techniques or  
MHL 567Survey of Choral Literature (2 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Choral or instrumental conducting (2 credits)  
Instrumental methods (1 credit)  
Jazz elective (1 credit)  
Ensemble(s) (1 credit)  
Academic (4 credits)  
Total credits: 15

#### Senior Year, Fall Semester

Weekly Student Convocation (0 credits)  
Principal performance area (1 credit)  
MUE 321Teaching of Voice for Schools (1 credit)  
RED 326Literacy Across the Curriculum (3 credits)  
MTC 418Choral Arranging or  
MUE 415Jazz Ensemble Techniques (2 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Instrumental methods (1 credit)  
Instrumental methods/pedagogy (1 credit)  
Instrumental/choral rehearsal techniques (3 credits)  
Jazz elective (1 credit)  
Ensemble(s) (1 credit)  
Academic (3 credits)

Total credits: 17

Senior Year, Spring Semester

EDU 508 Student Teaching (12 credits)

SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)

Total credits: 15

Total Minimum Credits Required: 134

Consult with the School of Education, 111 Waverly Avenue, suite 230, regarding other New York State requirements for graduation.

Required child health and life safety seminar covering the following topics:

Identifying/reporting child abuse

Violence prevention

Child abduction prevention

Highway/general safety

Alcohol/drug/tobacco prevention

Fire and arson prevention

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## Physical Education

Contact: 315-443-2115, 820 Comstock Ave/ 201 Women's Bldg;

Syracuse University's nationally accredited Bachelor of Science (B.S.) degree in Physical Education meets the academic requirements for New York State initial certification for all grades, and teacher certification in states with reciprocal agreements. The New York Physical Education certification also qualifies teacher candidates to coach any sport (7-12) in any school in the state of New York.

The degree program emphasizes teaching methods that encourage all children to embrace a physically active lifestyle with a focus on urban and inclusive settings. The unique location of Syracuse University and the diversity of the surrounding community provide numerous authentic field experiences in urban and suburban settings alike starting in the first year. The School of Education affords its teacher candidates the advantages of resources found only at a major research university. Our undergraduate studies are enhanced with a strong liberal arts core and. Our small class sizes allow teacher candidates to develop strong, personal relationships with their professors, advisors, and peers.

Teacher candidates spend a minimum of 25 hours in the public schools each academic year, culminating with a full-time student teaching semester during which student teachers develop and teach several units of instruction and become involved with the school community. At a minimum, the B.S. in Physical Education can be earned with the satisfactory completion of 120 credits.

The B.S. in Physical Education requires teacher candidates to attain a 2.8 GPA prior to senior year student teaching. Student teaching requirements include successful completion of the Child Health and Life Safety Seminar and CPR/AED and First Aid certifications.

## Program Requirements

### LIBERAL ARTS REQUIREMENTS

MAT 121/221: Prob. and Statistics I (3 credits)

WRT 105: Writing Studio I (3 credits)

WRT 205: Writing Studio II (3 credits)

PSY 205: Foundation in Human Behavior (3 credits)

CRS 225: Public Advocacy

OR CRS 325: Presentational Speaking (3 credits)

Humanities Elective (any) (3 credits)

Humanities Elective (PHI, REL or LIT only) (3 credits)

History (3 credits)

Arts & Sciences elective (any) (9 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study. If Language requirement has been met, a 3-credit liberal arts elective must be taken in its place.

### Natural Sciences

BIO 121: General Biology I (4 credits)

NSD 225: Nutrition in Health (3 credits)

## Professional Physical Education

PPE 177: Intro Health & Physical Education (3 credits)  
PPE 235: Teaching Health-Related Fitness (3 credits)  
PPE 295: Introduction to Exercise Science (3 credits)  
PPE 381: Phys. Ed. Methods: Elementary (3 credits)  
PPE 383: Phys. Ed. Methods: Secondary (3 credits)  
PPE 385: Motor Behavior Across the Lifespan (3 credits)  
PPE 394: Assessment & Curriculum in Health and Physical Education (3 credits)  
PPE 395: Structural Kinesiology ( 3 credits)  
PPE 408: Analysis of Human Motion (Biomechanics) (3 credits)  
PPE 415: Teacher Development in Health and Physical Education (1 credit)  
PPE 481: Adapted Physical Education (3 credits)

## Professional Education

EDU 204: Princ of Learning in Incl Classrm (4 credits)  
EDU 304: Study of Teaching (4 credits)  
EDU 508: Student Teaching K-12 (12 credits)  
RED 326: Literacy Across Curriculum (4 credits)  
SPE 311: Perspectives on Disabilities (3 credits)  
CFE/WSP: 444 Schooling & Diversity (3 credits)  
or EDU: 310 American School

## Technology

(Choose 3 Credits)

IDE 201: Integrating Tech in Classroom I (1 credit)  
IDE 301: Integrating Tech in Classroom II (1 credit)  
IDE 401: Integrating Tech in Classroom III (1 credit)

## Activity Courses

(10 Credits Total)

### Required Activity Courses

PED 240: Individual/Dual Sports (1 credit)  
PED 250: Team Sports (1 credit)  
PED 262: Gymnastics (1 credit)  
PED 209: Adventure Activities 1 (1 credit)  
3 Credits of PED activity electives (choose three in consultation with your advisor)

## Aquatics

(choose 2 credits)

PED 211: Beginning Swimming (1 credit)  
PED 212: Intermediate Swimming (1 credit)  
PED 213: Advanced Swimming (1 credit)  
PED 216: \*Water Safety Instruction (2 credits)  
PED 217: Lifeguarding (2 credits)  
\*recommend WSI certification prior to student teaching

## Dance/Aesthetics

(Choose One)

DTS231: Intro to Dance (1 credit)  
DTS228: Social Ballroom Dance (1 credit)  
DTS233: African Dance (1 credit)

Open Elective: any course (3 credits)

## Required Child Health And Life Safety Seminar Covering The Following Topics:

Identifying/reporting child abuse  
Violence prevention  
Child abduction prevention  
Highway/general safety  
Alcohol/drug/tobacco prevention  
Fire and arson prevention

\*CPR/AED/FA certification must be valid during student teaching

\*WSI certification recommended prior to student teaching

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## Physical Education (Coaching) Minor

Dr. Sandra Bargainnier: [ssbargai@syr.edu](mailto:ssbargai@syr.edu), 315-443-9776; 820 Comstock Ave/  
201 Women's Bldg.

The coaching minor is designed for students who wish to coach in secondary schools (grades 7-12). Coursework extends beyond the 8 credits required for the New York State Temporary Coaching License. Prerequisite: 2.5 grade point average.

### Required Courses:

PPE 325: The Philosophy, Principles and Organization of Athletics in Education (3 credits)

PPE 326: Theory and Techniques of Coaching (2 credits)

PPE 327: Health Sciences Applied to Coaching and Physical Activity (3 credits)

### Select 10 Additional Credits From Any Of The Following:

PPE 486: Prevention and Care of Athletic Injuries (3 credits)

NSD 225: Nutrition in Health (3 credits)

HEA 335: First Aid (1 credit)

HEA 336: CPR (1 credit)

PPE 385: Motor Behavior across the Lifespan (3 credits)

PPE 435: Introduction to Sport Psychology (3 credits)

PPE 483: Scientific Principles of Conditioning (3 credits)

Total Credits: 18

Note: For a New York State Temporary Coaching License a current and valid Red Cross Responding to Emergencies [or its equivalent] card is required at the time of application. The Child Health and Life Safety Seminar will be offered at no cost through the School of Education to those students seeking the New York State Temporary Coaching License. This on-line seminar includes the child abuse prevention workshop and violence abuse prevention workshop. (Contact Fran Cooney [fcooney@syr.edu](mailto:fcooney@syr.edu) in 111 Waverly, Suite 230, 315-443-9319).

Fingerprinting is also required for appointment to coaching positions.

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## Physics Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Physics and Secondary Science Education (Physics) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Physics (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with "Teacher Preparation/5 year" appended to the title (e.g., "History (TchrPrep/5yr)" instead of "History"). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Policy Studies Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Policy Studies and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 138 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Political Science Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Political Science and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

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## Science Education-Biology

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvsradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

### Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

## Page 2 Of Science Education-Biology

Contact: John W. Tillotson, 101 Heroy Building, 315-443-2586, jwtilot@syr.edu.

In addition to the professional education requirements, students in science education complete the Bachelor of Arts\* with a major in the primary science area and the following requirements:

## Core Requirements

Science education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts-related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM) (3 credits)
- One multicultural humanities or social science course (3 credits)
- One approved calculus course (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

## Science Content

Science education majors are required to complete a major of no less than 30 credits in an area chosen from biology, chemistry, earth sciences, or physics.

In addition to the major or as part of the major's non-departmental science requirements, students must complete an introductory laboratory sequence in a second science area.

\*The B.S. degree may be earned in the primary science area instead of the B.A. with the completion of additional science requirements, paperwork, and an appropriate petition.

\*\* See specific departmental major course requirements for biology.

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## Science Education-Chemistry

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvsradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the

junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

## PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

## Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

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## Page 2 Of Science Education-Chemistry

Contact: John W. Tillotson, 101 Heroy Building, 315-443-2586, [jwtillot@syr.edu](mailto:jwtillot@syr.edu).

In addition to the professional education requirements, students in science education complete the Bachelor of Arts\* with a major in the primary science area and the following requirements:

### Core Requirements

Science education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts-related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM) (3 credits)
- One multicultural humanities or social science course (3 credits)
- One approved calculus course (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

### Science Content

Science education majors are required to complete a major of no less than 30 credits in an area chosen from biology, chemistry, earth sciences, or physics.

In addition to the major or as part of the major's non-departmental science requirements, students must complete an introductory laboratory sequence in a second science area.

\*The B.S. degree may be earned in the primary science area instead of the B.A. with the completion of additional science requirements, paperwork, and an appropriate petition.

\*\* See specific departmental major course requirements for biology.

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## Science Education-Earth Science

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### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey ([pkhachey@syr.edu](mailto:pkhachey@syr.edu)) or Carol Radin ([cvradin@syr.edu](mailto:cvradin@syr.edu)), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
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- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

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- RED 326 Literacy Across the Curriculum\* (4 credits)
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\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

#### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

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- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

#### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more

than 12 total credits in this semester, unless approved by an advisor.

## Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

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## Advising And Special Services

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## Page 2 Of Science Education-Earth Science

Contact: John W. Tillotson, 101 Heroy Building, 315-443-2586, [jwtillot@syr.edu](mailto:jwtillot@syr.edu).

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### Core Requirements

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- One arts-related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM) (3 credits)
- One multicultural humanities or social science course (3 credits)
- One approved calculus course (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

### Science Content

Science education majors are required to complete a major of no less than 30 credits in an area chosen from biology, chemistry, earth sciences, or physics.

In addition to the major or as part of the major's non-departmental science requirements, students must complete an introductory laboratory sequence in a second science area.

\*The B.S. degree may be earned in the primary science area instead of the B.A. with the completion of additional science requirements, paperwork, and an appropriate petition.

\*\* See specific departmental major course requirements for biology.

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## Science Education-Physics

### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)

- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

## Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

## Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

## Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

## Page 2 Of Science Education-Physics

Contact: John W. Tillotson, 101 Heroy Building, 315-443-2586, [jwtilot@syr.edu](mailto:jwtilot@syr.edu).

In addition to the professional education requirements, students in science education complete the Bachelor of Arts\* with a major in the primary science area and the following requirements:

### Core Requirements

Science education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts-related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM)) (3 credits)
- One multicultural humanities or social science course (3 credits)
- One approved calculus course (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

### Science Content

Science education majors are required to complete a major of no less than 30 credits in an area chosen from biology, chemistry, earth sciences, or physics.

In addition to the major or as part of the major's non-departmental science requirements, students must complete an introductory laboratory sequence in a second science area.

\*The B.S. degree may be earned in the primary science area instead of the B.A. with the completion of additional science requirements, paperwork, and an appropriate petition.

\*\* See specific departmental major course requirements for biology.

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## Selected Studies In Education

### A Program For Cultural And Social Transformation

Contact: Mario Rios Perez, 354 Huntington Hall Phone, 315-443-9077, mrperez@syr.edu

Designed for Syracuse University students who are interested in education careers but not currently pursuing a teaching certificate, selected studies in education offers a path to a bachelor's degree through a program tailored to a student's individual interests, skills, and aspirations. Selected studies in education is for students planning to enter fields that contain strong educational components, including educational media, international education, clinical mental health, school, and student affairs counseling, instructional design, development, and evaluation, higher education, child advocacy and youth programming, education and family law, museum studies, disability studies, and related fields.

#### Program Requirements:

Students must complete the following requirements, including at least 42 credits at the upper-division level:

- 30 credits in education (including a minimum of 18 credits in one of the four selected studies individual focus areas, outlined below)
- a minor or major in a liberal arts field related to the course of study;
- liberal arts distribution requirements (the liberal arts major or minor plus distribution requirements and liberal arts electives must total at least 60 credits.);
- at least 6 credits in a language other than English (all students are required to take at least two semesters of language other than English while at Syracuse, even if they have previously developed competence in another language through high school preparation or by some other means);
- one semester of study abroad or an intensive semester experience in Syracuse or another part of the U.S. that would broaden the student's experience with diversity in a distinct way;
- at least 6 credits in research methods (this requirement can be satisfied with courses taken as part of the required 30 credits in education);
- an internship or several intensive experience projects that allow the student opportunities to apply and enhance skills learned in the program (minimum of 6 credits).

#### ADMISSION:

A 2.8 grade point average is required for admission to this program and to remain in good academic standing in the program.

#### CORE IN EDUCATION

Students are required to complete the following core courses in education (15 credits):

- EDU 200 Education for Cultural and Social Transformation (3 credits)
- EDU 310 American School (3 credits)
- EDU 300 International Education for Cultural and Social Transformation (3 credits)
- CFE 444 Schooling and Diversity (3 credits)
- EDU 400 Research and Theory in Education for Cultural and Social Transformation (3 credits)

#### LIBERAL ARTS DISTRIBUTION REQUIREMENTS

All students in the Selected Studies in Education program are advised to complete a set of liberal arts requirements. These are:

- Two mathematics courses (6 credits)
- Two science w/lab courses (8 credits)
- Three writing courses (WRT 105, 205, and 307) (9 credits)
- Two foreign language courses (6-8 credits)
- One history course (3 credits)
- One multicultural social science course (3 credits)
- One multicultural humanities course (3 credits)
- Eight liberal arts (Arts and Sciences) electives (24 credits)

#### LIBERAL ARTS MAJORS OR MINORS

Students are advised to complete a full major or an approved concentration in a liberal arts field as part of their program in selected studies in education. A complete list of available majors, minors and concentrations can be found in the Undergraduate Course Catalog; students may develop their own individualized multidisciplinary majors with the assistance of their advisor and permission of liberal arts departments in the College of Arts and Sciences.

## INDIVIDUAL FOCUS AREAS IN EDUCATION

Students must choose at least 18 credits of coursework from approved courses in education based on their thematic or career focus. Students satisfy this requirement by taking courses listed in any of the focus areas below. Students may make substitutions with the approval of their advisors. The four focus areas to choose from are:

### Cultural Foundations Of American Schooling: Schooling And Diversity

This focus is suitable for students who may want to pursue any of the following career interests: seek a teaching career at a future point; work with youth in non-school settings; enter the educational media field; or work in public policy settings that focus on public schooling. Students interested in this focus area might also want to choose courses from the pre-teaching focus or the education, technology, and media focus.

### Pre-Teaching: Study Of Teaching, Learning, And Inclusion

This focus is suitable for students who may wish to pursue a career in teaching after completing their undergraduate program. Courses in this focus area may include the study of early childhood, elementary, or secondary education, as well as issues of diversity, disability, regular education, special education, and inclusion within schools. Students in this focus area will have significant experiences in public schools during the course of study. Students interested in pre-teaching may want to consider taking relevant courses from other focus areas.

### Education, Technology, And Media

This focus is ideal for students who have an interest in the integration of media and technology in various learning contexts. Students learn media literacy skills and gain an understanding of how popular culture influences the promotion and transmission of cultural values within our society. Students interested in this focus may want to consider taking relevant courses in the cultural foundations of American schooling focus.

### Post-Secondary And Human Services Fields

This focus is suitable for students wishing to work in a variety of educational settings, including higher education, international education, and as non-teaching personnel in primary and secondary schools. Whether students are interested in pursuing a graduate degree in a human services field or in seeking employment immediately after undergraduate studies, this focus area will provide an introduction to the general study and provision of human and social services to individuals, families, and communities in public and private human service agencies and organizations. The focus provides a strong foundation for graduate work in such fields as clinical mental health, school, and student affairs counseling, social work, marriage and family therapy, psychology, and higher education. \*\*\*This focus also has the "fast-track" option for students to begin graduate study toward an Master of Science degree in counseling during their senior year at SU. See description below.

### Fast Track To Professional Counseling

This track is designed for highly motivated and focused students interested in pursuing a master's degree in clinical mental health, school, or student affairs counseling upon completion of their undergraduate degree in Selected Studies in Education, following the 'post-secondary and human services fields' track. Students work closely with their advisor to develop a plan of study that will allow them to complete the majority of their undergraduate degree requirements for the Selected Studies in Education program prior to their senior year.

Students in this track who maintain at least a 3.0 GPA, and take the GRE, are eligible to apply for one of the following master's degree programs during their junior year:

- Clinical Mental Health Counseling
- School Counseling
- Student Affairs Counseling

Admitted students, with advisor approval, will be able to take up to 18 graduate credits toward their master's degree during their senior year. Admitted students will matriculate into the master's degree program the semester following completion of their undergraduate degree.

One of the primary benefits of this track is that students save time and tuition costs in two ways:

- 1) The ability to apply their undergraduate financial aid package toward graduate credits during their senior year.
- 2) Eligible to receive the 33% Graduate Student Tuition Scholarship for the remainder of their full-time master's program.

Benefits include saving time and the cost of graduate tuition. Students save time by accruing graduate credits during their senior year; they save additional money because they are also eligible to receive the 33% Graduate Student Tuition Scholarship for the remainder of their full-time master's program.

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## Social Studies Education

### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)
- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

#### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)

- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

## Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

## Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

## Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

## Page 2 Of Social Studies Education

Contact: Jeffery Mangram, 150 Huntington Hall, 315-443-2685 or jamangra@syr.edu

In addition to the professional education requirements, students in social studies education complete the Bachelor of Arts in a social science subject area and the following requirements:

### Core Requirements

Social studies education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- One mathematics course-Statistics (MAT 121 or 122) is recommended (can also meet one of the program's research requirements) (3 credits)
- One arts related course within Arts and Sciences (HOA or HOM or other approved humanities course focusing on one or more of the arts) (3 credits)
- One humanities course (other than history (HST) or fine arts (HOA or HOM)) (3 credits)

Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study.

### Social Studies Content

\* Social studies majors are required to complete a major in an area chosen from African American studies, American studies, anthropology, economics, geography, history, international relations, political science, policy studies, or sociology. If African American Studies or American Studies is chosen, all courses other than required humanities courses must be social science classes.

If history is not the chosen major, the following 18 credits of history must also be completed:

- HST 101 American History to 1865 (3 credits)
- HST 102 American History Since 1865 (3 credits)

- HST 111 Early Modern Europe, 1350-1815 (3 credits)
- HST 112 Modern Europe: Napoleon to the Present (3 credits)
- One nonwestern history course (3 credits)
- One upper-division history (300-level or above) by advisement (3 credits)

All majors must complete a course in economics (ECN), political science (PSC), cultural geography (GEO) from the social science list and one approved "global" course (which may overlap with other requirements).

All majors must complete SED 522 Study of Social Studies and three other courses that are considered social science research methods or theory based courses.

\* See specific departmental major course requirements for your chosen content major.

## Spanish Education

### Arts And Sciences/Education (Dual)

Arts and Sciences contact : Shruti Viswanathan, Director of Academic Advising and Counseling, 329 Hall of Languages, 315-443-3150.

Education contacts: Pam Hachey (pkhachey@syr.edu) or Carol Radin (cvradin@syr.edu), Assistant Directors of Academic Advising, Office of Academic and Student Services, 111 Waverly Avenue, Suite 230; 315-443-9319.

In order to graduate with eligibility to apply for New York State teacher certification in the secondary (7-12) academic areas of English, mathematics, science, social studies, or Spanish dual enrollment with the School of Education is required. Completion of all College of Arts and Sciences requirements (including the Liberal Arts Core with courses from specific categories and a major in one of the listed content areas), combined with 36-39 credits of education courses (including methods and student teaching), for a total of 123-126 credits, are required. Some students may need to complete total program credits that are slightly greater than 126. In addition, completion of New York State testing and other certification requirements apply. Please see the following detailed information.

The dual programs for prospective teachers provide a broad general education (the Liberal Arts Core of the College of Arts and Sciences), depth in the content area to be taught, and professional coursework and field experiences focusing on the skills and knowledge necessary to teach students from diverse backgrounds and with varying abilities.

Students in the dual programs complete a program of study offered jointly by the College of Arts and Sciences and the School of Education: English education; mathematics education; science education (biology, chemistry, earth science, or physics); social studies education, or Spanish education. Students also complete the requirements for a College of Arts and Sciences major in the subject area.

Within the Liberal Arts Core, major, and/or electives, students must include one course from the following:

- mathematics (MAT 112 may not meet this requirement) (3 credits)
- history (3 credits)
- social science course other than history or psychology (3 credits)
- arts and culture/HOA or HOM, or other approved humanities course focusing on one or more of the arts (3 credits)
- humanities course other than arts and culture or HST (3 credits)
- approved humanities or social science course with non-Western content (list is available from the education advisor. English, Social Studies and Spanish Education students complete this as part of their major in the subject area.) (3 credits)

When planning their subject areas, students should keep in mind that at least 9 credits of education are required in the fall of the senior year in order to meet the prerequisites for the spring student teaching experience. As many content (subject area) courses as possible should be completed by the end of the junior year.

All programs meet the academic requirements for New York State initial adolescent certification to teach grades 7-12 in the specified subject. Successful completion of certification examinations is also required for New York State teacher certification.

A core of professional requirements shared by all of these is as follows. Additional liberal arts, professional, and other requirements are described on page two of this section. More detailed information is available from the program coordinator.

### PROFESSIONAL EDUCATION CORE (INCLUDING REQUIREMENTS OTHER THAN COURSES)

The professional sequence includes coursework, field experience and student teaching, and requirements other than coursework, described below.

The Professional Core Requires:

- EDU 204 Principles of Teaching and Learning in Inclusive Classrooms\* (4 credits)

- EDU 304 Study of Teaching\* (4 credits)
- EDU 310 American School\* (3 credits)
- RED 326 Literacy Across the Curriculum\* (4 credits)
- EDU 400 Safe and Healthy Learning Environments (1 credit) or, if previously completed, the Child Health and Life Safety Workshops and DASA training.

\* EDU 304 and RED 326 should be taken after EDU 204. EDU 204 may be taken as early as the second semester of first year. All must be taken before the final professional semester. EDU 310 may be taken before, or after (extra semester) professional semesters.

The semesters of registration listed are for students completing the program in four years. Others would adjust accordingly, with the candidacy and second professional semester as late in the program as possible.

### Candidacy Semester

(fall of the senior year)

Prerequisites: Enrollment in the specific program; development of an acceptable professional portfolio (reviewed during the fall prior to the candidacy semester); a minimum 3.0 cumulative average, and 3.0 in both required education and in content (subject matter) courses; completion of EDU 204 and 304, RED 326, and the number of content courses required by the program; and appropriate progress toward meeting all of the program assessment proficiencies and dispositions.

- SED 413 or SCE 413 Methods and Curriculum in Teaching (in specific subject area) or for Spanish Education, LIN 421 Introduction to Methodology of teaching languages: English/Foreign Language Teaching (3 credits)
- SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)
- EDU 508 Student Teaching/Secondary Candidacy (3 credits)

### Standard Student Teaching Semester

(spring of the senior year)

Prerequisites: Successful completion of the candidacy semester and acceptable professional portfolio; completion of the required amount of credits in the content area; grade point averages at or above the minimums stated above; successful review of all appropriate student assessment proficiencies and dispositions.

- EDU 508 Student Teaching (9 credits)
- SED 416 Assessment & Data Driven Instruction; or, for Spanish Education, SPA 403 Advanced Methods for teaching Spanish (3 credits)

Because this student teaching placement is a full-time, multi-week experience, no other daytime courses can be taken, and it is not advisable to plan more than 12 total credits in this semester, unless approved by an advisor.

### Admissions

A minimum of a 3.0 grade point average is required for admission to these Arts and Sciences and Education dual enrollment programs. GPA requirements for admission to the candidacy and standard student teaching semesters, and other prerequisites to these semesters are mentioned above. Additional requirements may apply to some programs.

Intra-University transfer to the School of Education is coordinated through the Office of Academic and Student Services, 111 Waverly Avenue, suite 230, and a course sequencing plan must be completed at the time of application with the Program Specialist in the Department of Teaching and Leadership. Upon acceptance into a dual program, the student should also complete the official program of study form required by the College of Arts and Sciences. Students may not declare a major in an Arts and Sciences/Education program until they are accepted by the School of Education. Application should be made as soon as possible, but must be made no later than the start of the fall of the junior year by those hoping to complete the program in four years (although even then extra semesters may be necessary).

### Advising And Special Services

A dually enrolled student has an advisor in each college or one advisor dually appointed to both colleges. Early contact with the education advisor is important for progress and careful planning. Contact is also required before each registration in order to have the School of Education advising hold lifted.

Students planning graduation from these programs are expected to ensure a senior check has been completed with the School of Education, in addition to similar monitoring by the College of Arts and Sciences. They also may take advantage of the job search services of the Education Career Services Office, 111 Waverly Avenue, suite 230.

### Page 2 Of Spanish Education

Contact: Gail A. Bulman, 340 HBC, 315-443-5385 or [gabulman@svr.edu](mailto:gabulman@svr.edu)

In addition to the professional education requirements, students in Spanish education complete a major in Spanish and the following requirements:

### Core Requirements

Secondary Spanish education majors must complete the Liberal Arts Core curriculum with these additional specific requirements:

- WRT 205 Writing Studio 2 OR WRT 209 Writing Studio 2 (Honors) (3 credits)
- One mathematics (MAT) course from Liberal Arts Core Quantitative Skills List (3 credits)
- One approved history (HST) course (3 credits)
- One social science course (other than history (HST) or psychology (PSY)) (3 credits)
- One arts related course within Arts and Sciences (HOA or HOM, or other approved humanities course focusing on one or more of the arts) (3 credits)

If available, these may be courses taught in Spanish.

#### Spanish Content

Spanish Education students must complete the Spanish Language, Literature and Culture [[link to Spanish major](#)] major as defined by the Languages, Literature and Linguistics Department. 30 credits are required at the 300 level and above, with 21 (7 courses) of these at the 400 level. Spanish Education students must include the following courses (not required of other SPA majors) within their programs, with 15 upper division courses completed on the SU campus:

- SPA 302 – Advanced Language Usage (3 credits)
- SPA 321 – Introduction to Spanish Literature (3 credits)
- SPA 322 – Introduction to Latin American Literature (3 credits)
- SPA 435 – Spanish Phonetics and Phonology (3 credits)
- SPA 436 – Structure of Spanish (3 credits)
- SPA 4XX 1 course of Latino Literature (3 credits)
- SPA 4XX – 2 courses of Latin American Literature (6 credits)
- SPA 4XX – 2 courses of Spanish Peninsular Literature (6 credits)

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## Women's And Gender Studies Secondary Teacher Preparation Program

Combined Bachelor's/Master's Degrees in Women's and Gender Studies and Secondary (Social Studies) Teacher Preparation Program

Contact Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@syr.edu](mailto:mrsarno@syr.edu)

This combined degree option, offered by the College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for Social Studies (7-12). It is an alternative to the existing undergraduate Arts and Sciences/Education dual program in these areas, and an option that often takes less time and fewer credits than earning the entire master's degree in education after completion of a general Arts and Sciences degree.

The combined bachelor's/master's teacher preparation programs were designed to meet the needs of Arts and Sciences undergraduates who, because of a later decision to become a teacher, would need to add a semester or more to their undergraduate study to complete the existing undergraduate Arts and Sciences/Education program. It also serves those who want or need more flexibility in their undergraduate program than the dual undergraduate degree allows.

Both the Arts and Sciences undergraduate degree with a major related to the subject to be taught, and the School of Education master's degree are conferred at the same time, after all requirements are met – typically at the end of 5 years. Students begin taking education courses as undergraduates, including some in the fourth year that are taken for graduate credit, and apply to become graduate students for their last two semesters. Some summer study (not necessarily at SU) may be required.

The combined program has a two-stage admission process. The first stage involves meeting with the School of Education contact as early as possible to develop a plan, and, if a decision to pursue the program is made, completing a form signed by Education and a new declaration of program of study form in Arts and Science to declare the Arts and Sciences program with “Teacher Preparation/5 year” appended to the title (e.g., “History (TchrPrep/5yr)” instead of “History”). The second admission stage involves an application to the Graduate School. Each admission stage requires a minimum 3.0 cumulative GPA and a minimum 3.0 GPA in the courses from the subject to be taught. The second stage also requires successful performance in the undergraduate education courses.

The choices of Arts and Sciences majors, and the course requirements for the Arts and Sciences major, the Liberal Arts Core, and other requirements related to the major are the same for these combined programs as those for students completing the dual enrollment undergraduate Arts and Sciences/Education program. These details about specific adjustments necessary to the Liberal Arts Core and to Arts and Sciences major may be found in the section describing Dual Arts and Sciences/ Education Programs.

Because of the specific course requirements and sequencing of courses, it is important that students interested in one of these programs meet with the School of Education contact as soon as possible to develop a plan. EDU 204, the first education course, must be taken no later than spring of the junior year.

# Courses

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## Art Education

### AED 211 The Creative Classroom:

Reexamining School Art Misconceptions Through Studio Inquiry 3 Y

A studio art course that disrupts misconceptions about the relevance of the arts and design practices in education through arts-based inquiry.

### AED 300 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### AED 317 Philosophy & Foundations of Art Education Practice 3 Y

Double Numbered with: AED 617

Historical trends and philosophies of diverse art education practices and the growth of American public education. Includes field observations, interface with cultural institutions, cultivation of professional affiliations, and the development of a beginning teaching philosophy.

### AED 470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Student must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### AED 499 Honors Capstone Project 1-3 S

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### AED 510 Special Problems in Art Ed 1-6 Y

Individual study of particular problems in art education which are of pertinence to the student. Counseling and consent of the instructor determine the area of study.

### AED 521 Art-Centered Art Curriculum 3 IR

Ten approaches to writing art curricula: referential, chronological, stylistic, topical, special interest, specific artist, collection-related, integrating, multidisciplinary, enrichment. Development of classroom material for specific levels or particular audiences. For senior and graduate art majors.

### AED 522 Art for Special Populations 3 IR

Effective personal communication through art. Choose and define a special population; examine and generate appropriate research; develop adaptive strategies, curriculum, and evaluation procedures appropriate for classroom use. For senior and graduate art majors.

### AED 524 Visual Language 3 IR

Visual language as catalyst for interdisciplinary experiences in art, math, science, and social studies. Visualization, determination of essential features, methods of teaching surrogate and relational form. Curriculum for specific grades or particular audiences. For senior and graduate art majors.

### AED 525 Exploration & Meaning in Art 3 IR

Using phenomenological encounter techniques, symbol interpretation, and consideration of cultural context, students learn to argue a point of view and develop methods of critical judgment in their students. For senior and graduate art majors

### AED 584 Cultural Knowledge, Identity, and Postmodern Art Education 3 Y

A course providing a safe space for arts educators and teaching artists to reconceptualize their language, attitudes, and approaches toward viewing, learning, and teaching the visual arts to diverse students in a global postmodern society.

## American Sign Language

### ASL 100 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ASL 101 American Sign Language I 4 S

Introduction to American Sign Language (ASL) as a living, unique language underlying Deaf culture in the US. Vocabulary and grammar for basic conversations. For students with no or minimal signing skills.

### ASL 102 American Sign Language II 4 S

Continuing development of skills developed in ASL I. Vocabulary, receptive and expressive skills to engage in spontaneous conversations and tell stories in ASL. PREREQ: ASL 101.

### ASL 201 American Sign Language III 4 S

Building on ASL I and II students will develop ability to converse in ASL, tell stories and narratives, and think critically about Deaf culture and ASL in a variety of contexts. PREREQ: ASL 102.

## Cultural Foundations Of Education

### CFE 300 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### CFE 362 Youth, Schooling and Popular Culture 3 Y

Crosslisted with: SOC 361, WGS 362; Double Numbered with: CFE 662

Positioned where school, media, and youth cultures intersect. How schools and media represent "good" and "bad" youth, and how youth negotiate schools and popular cultures. Includes theories of popular culture and adolescence. Additional work required of graduate students.

### CFE 400 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### CFE 444 Schooling & Diversity 3 S

Crosslisted with: WGS 444

Construction of diversity (race, ethnicity, gender, nationality, class, disability, sexual orientation) in schools. Emergence of inequalities based on difference in pedagogy and curriculum. Student resistance in relation to cultural diversity. Teaching for empowerment.

## College Learning Strategies

### CLS 105 College Learning Strategies 3 S

Study and application of learning strategies in the context of lectures, reading, recitations and independent learning situations.

## Counseling

### COU 101 Developmental Issues of College Age Adults 3 S

Issues of college students such as time management, identity development, intimacy, sexuality, alcohol and drug use, conflict management, interpersonal communications, dealing with diversity, choosing a major and a career.

### COU 585 General Counseling Methods 3 Y

For non-majors, introduces students to fundamental components of the practice of counseling for application in a variety of professional settings. This course cannot be used to waive a required course for a master's program in Counseling and Human Services.

## Disability Studies

### DSP 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### DSP 203 Introduction to Inclusive Schooling 3 S

Crosslisted with: EDU 203

Examining schools and teaching from a disability studies perspective. Topics, issues, values related to inclusive education. Readings, observations and analysis of cultural media.

### DSP 357 Deafness and Disability 3 SS

Crosslisted with: SPE 357

Examines the relationship between deaf and disability studies and explores deafness as both a social construction and an identity.

### DSP 400 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### DSP 419 Health Promotion: Disability 3 Y

Crosslisted with: HTW 419

Factors influencing the health & well-being of persons with disability, including models of disability, disability history, law and services, health disparities, health promotion, ethics, violence, and disaster preparedness.

### DSP 424 Representations of Ability & Disability 3 E

Crosslisted with: SOC 424

Representations of disability in autobiographical accounts and professional narratives, and implications of these representations for educational practice and policy.

### DSP 432 Gender and Disability 3 Y

Crosslisted with: SOC 432, WGS 432

This course will investigate the intersection of gender and disability and how it impacts such issues as representation/self-representation, art and poetry, illness, education, sexuality, reproduction and motherhood, and caring work.

### DSP 438 Disability and Popular Culture 3 Y

Crosslisted with: SOC 438

Explore representations of disability through the analysis of books, movies, television, cartoons, and journalism. It will examine how disability is portrayed by people with and without disabilities, and discuss influences on public perceptions of disability.

### DSP 440 Sociology of Disability 3 Y

Crosslisted with: SOC 440

A theoretical understanding of disability through the lens of sociology and that of disability studies and demonstrates how cultural institutions shape conceptions of disability in society.

### DSP 475 Internship in Disability Policy 3 Y

Practical experience in examining how public policy affects the lives of people with disabilities. Open to students admitted to the Disability Studies minor who have completed at least two Disability Studies courses.

### DSP 490 Independent Study 1-6 R

### DSP 500 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

## Dance Technique Studies

### DTS228 Basic Social Ballroom Dance 1 S

Basic skills of social dance, including the foxtrot, cha-cha, waltz, swing, rumba, polka, and novelty dances. Also introduction tango, merengue, and samba. Enroll as an individual or with partner. No experience necessary.

### DTS229 Intermediate Social Ballroom Dance 1-2 S

Ideal for anyone with previous ballroom dance experience or in any form of dance. Emphasis on styling and upper level dance patterns.

### DTS231 Introduction to Dance 1 Y

Fundamental skills involved in jazz, modern, ballet, and aerobic dance.

### DTS233 African Dance 1 Y

Dance styles and rhythms from Africa and the Caribbean. Emphasizes folkloric dance of these regions. No dance experience necessary.

### DTS234 Tap I 1 S

An introduction to the history and practice of tap dance with an emphasis on styles, musicality, and technique.

### DTS235 Beginning Jazz I 1-2 Y

Basic vocabulary of jazz dance. Emphasizes strength, technique, coordination, musicality, and appreciation of the art form. No dance experience necessary.

### DTS236 Beginning Jazz II 1-2 Y

Continuation of DTS 235. Emphasizes technical development, musicality, and longer combinations.

### DTS237 Intermediate Jazz I 1-2 Y

For students with training in jazz. Emphasizes mastering techniques and developing personal style.

### DTS238 Intermediate Jazz II 1-2 Y

Continuation of DTS 237. Challenging warm-ups, combinations, and repertory.

### DTS239 Beginning Ballet I 1-2 Y

Develops basic understanding of ballet. Develops skills in alignment, technique, and movement. No dance experience necessary.

### DTS241 Beginning Ballet II 1-2 Y

Continuation of DTS 239. Further development of technical phrases, positions, center work, and ballet vocabulary.

### DTS242 Intermediate Ballet I 1-2 Y

For students with previous ballet training. Challenging center work, introduction of developed technical phrases, and repertory.

### DTS243 Intermediate Ballet II 1-2 Y

Continuation of DTS 242. Emphasizes developing complexity in precision, strength, alignment, and performance skills.

### DTS244 Beginning Modern I 1-2 Y

Introduces basic vocabulary including correct placement, technique and quality of movement.

### DTS245 Beginning Modern II 1-2 IR

Continuation of DTS 244. Emphasizes technical development and proper alignment.

### DTS246 Intermediate Modern I 1-2 Y

For students with previous training in modern dance. Emphasizes technique or style developed by Graham, Horton, Humphrey, or Limon.

DTS247 Intermediate Modern II 1-2 IR  
Continuation of DTS 246. Students continue to master and refine technique, lengthy combination skills, and repertory.

DTS248 Improvisation 1 IR  
Basic improvisation for use in choreography and improvisational settings. Develops spontaneity of movement.

DTS249 Latin & Salsa Dance 1 S  
Introduction to Latin American dancing including Salsa, Merengue, Bachata, Samba. Develop dance skills for use in social settings and gain appreciation of artistic, athletic, and cultural qualities of dance. Covers partnering, style, rhythm, and music.

DTS251 Hip Hop Dance 1 S  
This course introduces students to origins and techniques that constitute Hip Hop dance. Students will learn about Hip Hop dance as a part of hip hop culture that can contribute to personal and societal awareness.

DTS252 East Coast Swing 1 S  
This course is for those who have no dance experience and those who have done other styles of dance. East coast swing and Lindy hop will be introduced in their historic and musical context.

DTS253 West Coast Swing 1 S  
This course is for those who have no dance experience and those who have done other styles of dance. West Coast Swing fundamentals, technique and musicality will be emphasized as well as current musical trends.

DTS254 Bellydance 1 S  
Students will learn the fundamental movements of Belly Dance. Introduction to isolations, figure eights, undulations, shimmies, footwork, dance steps and improvisation. Body awareness and tempo will be studied in conjunction with eight Middle Eastern rhythms.

DTS255 Tap II 1 Y  
Further development of tap dance knowledge, technique, and artistry  
PREREQ: DTS234.

DTS280 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

DTS300 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

DTS368 History and Appreciation of Western Dance 3 O  
Histories of ballet, modern, tap and jazz dance, and their impact on dance as we know it today. Readings, discussion, viewing and demonstration. No dance experience necessary.

DTS423 Basic Concepts of Choreography 3 E  
Exploration and definition of the shape and content of dance. Improvisation, motivation, style, purpose, and precise movement. Factors contributing to performance and choreography. Prior completion of at least three DTS technique classes.

DTS490 Independent Study 1-6  
R

### Education (General)

EDU 101 First Year Forum 1 Y  
An introduction to the School of Education and Syracuse University. Designed to assist student with a successful transition to college.

EDU 200 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. \* R

EDU 201 Practicum in Pre-K Inclusive Education 1 S  
Observation and engagement with children in preschool settings serving nondisabled children and children with Autism Spectrum Disorder and/or other developmental disabilities. Provides opportunities to observe practices discussed in EDU 203 classes and readings.  
COREQ: EDU 203.

EDU 203 Introduction to Inclusive Schooling 3 S  
Crosslisted with: DSP 203  
Examining schools and teaching from a disability studies perspective. Topics, issues, values related to inclusive education. Readings, observations and analysis of cultural media.

EDU 204 Principles of Learning in Inclusive Classrooms 3-4 S  
Understanding learning, learner similarities and differences in diverse populations; schools and classrooms as complex learning settings; teacher decision-making based on classroom observations, student assessment, theory, and situation analysis. No more than one of EDU 204,303, or 307 may be taken for credit.

EDU 221 Education for Transformation 3 Y  
Exploration of education related professional fields. Critical examination of issues of power and privilege in U.S. Strategies for working toward social and cultural transformation.

EDU 270 Experience Credit 1-6 SI  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

EDU 290 Independent Study 1-6  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

EDU 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EDU 301 Methods and Practice in Teaching Art 4 S  
Double Numbered with: EDU 601  
Immersion in arts instructional responsibilities. Focus on developing emergent approaches to K-12 arts pedagogy. Initiates development of meaningful instructional repertoires and practices; teacher-learner dialogue techniques; classroom management strategies. Includes teaching Saturday art workshops. Additional work required of graduate students.  
PREREQ: AED 317 AND EDU 204.

EDU 302 Methods and Curriculum in Teaching Art 4 Y  
Double Numbered with: EDU 602  
Focuses on creating visual culture and culturally responsive curriculum and assessment units for first-year professional practice; interdisciplinary perspectives; values, ethics, and policy approaches for de-emphasizing prevailing "school art" paradigms. Includes teaching Saturday art workshops.  
PREREQ: EDU 301.

EDU 303 Teaching and Learning for Inclusive Schooling 3 Y  
Principles of instruction for inclusive schooling based upon theory and research in children's learning. Emphasizing education for diverse student needs in elementary schools. Includes field placement. May not receive credit for both EDU 303 and EDU 204.

EDU 304 Study of Teaching 3-4 S  
Teaching in secondary schools and in special subject areas. Observing and analyzing teacher and student behavior, exploring what others expect of teachers and they of each other. Minimum 25-hour field placement. No more than one of EDU 304, EDU 605, EDU 606 or EED 606 may be taken for credit.  
PREREQ: EDU 204.

EDU 310 The American School 3 S  
Double Numbered with: EDU 610  
Issues that impinge on teachers, teaching, and schools in today's society. May not be repeated for credit.

EDU 321 International Education for Transformation 3 Y  
This course builds on the "Introduction to Selected Studies" course. The course will help illuminate your understanding of international education and struggle with how theories implicitly or explicitly formulate who you are and regulate what you do.

EDU 355 Fundamentals of Teaching for Non-Majors 3 Y  
Strategies for building community; implementing interactive, culturally-relevant instruction; planning using multiple intelligences; and teaching pro-social skills to youth in classroom and community environments. In-class practice of strategies. Course does not apply to teacher certification programs.

EDU 400 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EDU 421 Behavior Techniques in Music Education 3 Y  
Double Numbered with: EDU 621  
Behavior techniques in classroom and rehearsal situations. Development of music task-analysis skills and reinforcement techniques. Learning goals in music for children of different ages and abilities.

EDU 431 Art in the Classroom 1 S  
Workshop experience with art as it relates to the various academic areas and other arts. For education majors without an art background. Promotes effective working relationship between classroom teacher and arts specialists.

EDU 432 Music in the Classroom 1 S  
Introduction for non-music majors to skills/resources necessary to teach music to children. Assists the classroom teacher in the use of music and the music specialist in school setting.

EDU 433 Speech and Drama in the Classroom 1 S  
Introduction to rhetorical and dramatic skills. Basic principles, critical and creative processes, and adaptive action. Students experience positions of reporter interpreter, advocate actor, and discussant oral reader.

EDU 434 Creative Movement for the Classroom 1 S  
Use of movement exploration as integral to the learning process; implementation of movement elements into curriculum; appreciation for and understanding of the child's basic need to move and to learn through movement is stressed.

EDU 470 Experience Credit 1-6  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

EDU 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

EDU 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

EDU 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EDU 508 Student Teaching 2-15 S  
Supervised teaching experience in pre-kindergarten through twelfth grade settings, with required seminars and conferences. Matriculated teacher preparation students only. Repeated as program requires. Variable length experiences earn V-grade until complete, leading to P or F grade. Prerequisites and credits vary by program. Offerings may vary each semester. R

EDU 522 Social Studies and Democracy: The Reconstruction of Education 3 Y  
Relationship of social studies education to US democracy. Forces shaping our thinking about and understanding of history, politics, social issues, etc. Civic education's role in creating an active citizenry. Critical social theory around social studies related issues; current issues in the field of social studies. First offered in Summer 2015

EDU 535 Quality Infant Care Giving 2-3 SS  
Crosslisted with: CFS 535  
Workshop. Research theories and demonstrations of infant/toddler care, development, and assessment; group care, legal and budgeting issues, and work with parents.

## Elementary Education

EED 270 Experience Credit 1-6  
R

EED 290 Independent Study 1-6  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

EED 300 Selected Topics: Elementary Education 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EED 314 Teaching Strategies for Inclusive Education 3 S

Creating cooperative, inclusive classroom communities with a focus on community building, classroom climate, interactive large and small group teaching strategies and positive responses to classroom and family diversity. Implementation during field experience. Effective spring 2009

EED 323 Primary Grade Mathematics Methods and Curriculum 3 S

Integration of theory, research, and practice in teaching and learning of mathematics in grades 1-3. Examination of programs' scope, sequence, and materials. Designing, teaching and assessing inclusive lessons and units, including differentiated instruction and adaptations. Admission to block II is required. COREQ: EED 328 AND 336 AND 362 AND SPE 324.

EED 325 Primary Grade Literacy Methods and Curriculum 3 S

Methods and curriculum for literacy instruction in grades 1-3, including reading, writing, speaking, and listening. Lesson planning for children with diverse needs and disabilities. Effective spring 2009  
COREQ: EED 361.

EED 328 Block II Field Experience 3 S

Six week, 4.5 days per week classroom experience in grades 1-3. Student must be admitted to Block II.

COREQ: EED 323 AND 336 AND 362 AND SPE 324.

EED 336 Elementary Social Studies Methods and Curriculum 3 S

Double Numbered with: EED 626

Formulation and teaching of thematic unit plans to children with and without disabilities. Incorporates children's multicultural literature, inquiry-based curriculum materials, primary source documents, and activity-based instruction. Decisions based on concepts and values.

COREQ: EED 323 AND 328 AND 362 AND SPE 324.

EED 337 Elementary Science Methods and Curriculum 3 S

Double Numbered with: EED 627

Formulation and teaching of unit plans to children with and without handicaps. Decisions based on concepts and thinking skills. Reviews of curriculum materials and student-centered activities. Fostering inquiry.

COREQ: EED 363 AND 423 AND 425 AND 438.

EED 361 Block I Field Experience and Seminar 3 S

Seminar for students to critically reflect upon their field experiences. Professionalism, collaborative problem solving (including classroom management), and understanding and positively contributing to the school community. Six week, 2.5 hours per day classroom experience (grades 1-3). Must have been admitted to first professional block.  
COREQ: EED 325.

EED 362 Block II Field Seminar 1 S

Opportunities for students to critically reflect upon and understand their field experiences. Emphasis on professionalism, collaborative problem solving (including classroom management) and becoming a productive school change agent.. Student must be admitted to Block II.  
COREQ: EED 323 AND 328 AND 336 AND SPE 324.

EED 363 Block III Field Seminar 1 S

Opportunities for students to critically reflect upon and understand their field experiences. Emphasis on professionalism, collaborative problem solving (including classroom management) and becoming a productive school change agent. Admission to Block III is required.  
COREQ: EED 337 AND 438 AND 423 AND 425.

EED 400 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EED 423 Intermediate Grade Mathematics Methods and Curriculum 3 S

Integration of theory, research, and practice in teaching and learning of mathematics in grades 4-6. Examination of programs' scope, sequence, and materials. Designing, teaching and assessing inclusive lessons and units, including differentiated instruction and adaptations. Admission to Block II is required.  
PREREQ: EED 323; COREQ: EED 337 AND 363 AND 425 AND 438.

EED 425 Intermediate Grade Literacy Methods and Curriculum 3 S

Methods and curriculum for literacy instruction in grades 4-6, including reading, writing, speaking, and listening. Lesson and unit planning for children with diverse needs and disabilities. Student must be admitted to Block III.  
PREREQ: EED 325; COREQ: EED 337 AND 363 AND 423 AND 438.

EED 432 Teaching Number Ideas, K-6 3 SI  
Crosslisted with: MTD 432; Double Numbered with: EED 632

Numeration, operations, number theory, and rational number concepts and processes as foundational components of the elementary mathematics curriculum. Development of instructional methods and curriculum. Research on learning and teaching mathematics. Additional work required of graduate students.

EED 433 Teaching Geometry and Measurement, K-6 3 SI

Crosslisted with: MTD 433; Double Numbered with: EED 633

Geometry and measurement concepts and processes as foundational components of the elementary mathematics curriculum. Development of instructional methods and curriculum. Additional work required of graduate students.

EED 438 Block III Field Experience 3 S

Six week, 4.5 days per week classroom experience in grades 4-6.

COREQ: EED 423 AND 425 AND 337 AND 363.

EED 464 Student Teaching Seminar/Inclusive Education 3 S

Opportunities for student teachers in the Inclusive Elementary and Early Childhood Programs to critically reflect upon and understand their field experience. Emphasis on professionalism, collaborative problem solving (including classroom management) and becoming a productive school change agent.  
COREQ: EDU 508.

EED 470 Experience Credit 1-6 SI

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

## English Language Learners

ELL 301 Tutoring English Learners in Schools within the US and Abroad 3 Y  
Tutoring techniques for assisting English learners in schools, in the U.S. and abroad. Increasing students' understanding of other cultures and their cultural assumptions of non-English speakers. Does not apply to NY teacher certification for PreK-12 schools.

ELL 400 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

## Health And Physical Education

HEA 332 Personal Health and Safety 3 S  
Contemporary health issues including human sexuality, stress management, substance abuse, exercise, and nutrition.

HEA 335 First Aid 1 S  
Standard first aid instruction leading to certification.

HEA 336 Cardiopulmonary Rescue 1 S  
Basic life support for cardiac arrest victims: skill training in artificial compression of the heart, artificial ventilation of the lungs.

HEA 338 Advanced First Aid and CPR/AED 2 S  
Basic life support for breathing and cardiac emergencies; controlling bleeding and managing shock; behavioral emergencies, pregnancy and childbirth, oxygen administration, suction and remote location first aid and first aid skills

HEA 445 Methods of Teaching Health 3 Y  
The 'How' and 'What' to teach in health education. School health content, state and national curricula and standards, teaching resources, technology and pedagogy. A 25-hour field placement accompanies this course.

HEA 470 Experience Credit 1-6 SI  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

HEA 485 Worksite Health Promotion 3 S  
Double Numbered with: HEA 685  
Principles and applications of health promotion in the workplace.

## Instructional Design, Development, And Evaluation

IDE 201 Integrating Technology into Instruction I 1 S  
The first course of the three-course series intended to help preservice teachers integrate technology into instruction and teaching. The course introduces basic technologies with an emphasis on connecting technology experience with instruction through hands-on activities.

IDE 301 Integrating Technology into Instruction II 1 S  
Second course of three-course series intended to help preservice teachers integrate technology into instruction and teaching. The course introduces emerging technologies to enhance preservice teachers' understanding of technology integration while using technology in field teaching.  
PREREQ: IDE 201.

IDE 400 Selected Topics: Instructional Design, Development & Evaluation 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

IDE 401 Integrating Technology into Instruction III 1 S  
Third course of three-course series intended to help preservice teachers integrate technology into instruction and teaching. Course introduces emerging technologies to enhance preservice teachers' understanding of technology integration while using technology in field teaching.  
PREREQ: IDE 301.

IDE 456 Computers as Critical Thinking Tools 3 Y  
Double Numbered with: IDE 656  
Integrating computer technology applications into instruction to promote critical thinking in learners. Multiple software tools are explored and instructional applications developed. Additional work required of graduate students.

IDE 552 Digital Media Production 3 Y  
Use of new media tools to develop digital instructional media. Includes introduction and instruction on contemporary and emerging media development tools, including graphics, video editing, web design, and mobile technology.

## Mathematics Education

MTD 330 Undergraduate Research in Mathematics Education 1-3 SI  
Undergraduate students work with faculty members in mathematics education on research related to the learning and teaching of mathematics. Formulating questions, designing research, collecting and analyzing data. R

MTD 432 Teaching Number Ideas, K-6 3 SI  
Crosslisted with: EED 432; Double Numbered with: MTD 632  
Numeration, operations, number theory, and rational number concepts and processes as foundational components of the elementary mathematics curriculum. Development of instructional methods and curriculum. Research on learning and teaching mathematics. Additional work required of graduate students.

MTD 433 Teaching Geometry and Measurement, K-6 3 SI  
Crosslisted with: EED 433; Double Numbered with: MTD 633  
Geometry and measurement concepts and processes as foundational components of the elementary mathematics curriculum. Development of instructional methods and curriculum. Additional work required of graduate students.

MTD 434 Teaching and Learning Functions 3 E  
Crosslisted with: SED 434; Double Numbered with: MTD 634  
Functions as an organizing theme for mathematics education, 5-14. Theoretical development of the function concept and multiple representations. Applications throughout algebra with applications to geometry and probability. Use of software and data collection equipment. Additional work required of graduate students.

MTD 437 Teaching and Learning Geometry 3 IR  
Crosslisted with: SED 437; Double Numbered with: MTD 637  
Geometric thinking as an organizing theme for mathematics education, 5-14. Theoretical development of geometric concepts and notion of proof. Applications and connections of geometry throughout the curriculum. Use of geometry software. Additional work required of graduate students.

MTD 438 Teaching and Learning  
Statistics 3 E

Double Numbered with: MTD 638  
Statistical thinking across the curriculum, 5-14. Theoretical development on student learning of variation, sampling and inference. Research-based strategies for teaching. Use of statistical software and related technologies. Additional work required of graduate students.

## Music Education

MUE 115 Technology in Music Education  
2

Examines technology in music education. Computer hardware and software for notation, sequencing, multimedia, computer-assisted instruction, database, and sound editing are discussed. Provides practical understanding of music instrument digital interface, audio, video, Internet navigation, and web page design.

MUE 215 Foundations of Music Education  
3 Y

Philosophy of music teaching. Professional activities and organizations. Current trends. Career opportunities. Personal/professional competency of model teachers. Analysis of prospective teacher's personal/professional goals and competency.

MUE 300 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MUE 310 Field Experience in Music  
Education 1-2 S

Double Numbered with: MUE 610  
Orientation to school settings: organization, services, guidance, goals, evaluation. Observations and supervised teaching experiences in music at elementary/secondary levels. Experiences coordinated with music education courses in sophomore/junior years and graduate teacher preparation program. Additional work required of graduate students. PREREQ: MUSIC EDUCATION MAJOR. R1, 2 credits maximum

MUE 321 Teaching of Voice for Schools 1-  
2 Y

Double Numbered with: MUE 621  
Laboratory in teaching voice, emphasizing performance techniques, care of vocal instrument, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor.

MUE 325 Teaching of String Instruments  
1-2 Y

Double Numbered with: MUE 625  
Laboratory in string instruments, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstrations of methods and materials for individual/group instruction. Upper-division status or permission of instructor. R2, 4 credits maximum

MUE 326 Teaching of Brass Instruments  
1-2 Y

Double Numbered with: MUE 626  
Laboratory in brass instruments, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor. R1, 4 credits maximum

MUE 327 Teaching of Woodwind  
Instruments I 1-2 Y

Double Numbered with: MUE 627  
Laboratory in flute, clarinet, and saxophone, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor.

MUE 328 Teaching of Woodwind  
Instruments II 1-2 Y

Double Numbered with: MUE 628  
Laboratory in oboe and bassoon, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor.

MUE 333 Music in the Elementary School  
1-2 Y

Double Numbered with: MUE 633  
Methods and materials for elementary school music programs. Laboratory experience in teaching songs, rhythms, music listening, sight reading, and the use of visual aids. Orff and Kodaly methods. PREREQ: MINIMUM JUNIOR STANDING.

MUE 334 Methods and Materials in  
General Music 1-2 Y

Double Numbered with: MUE 634  
Methods and resources for grades 6-12 in nonperformance music classes. History, theory, general music. The changing voice. Upper-division status or permission of instructor.

MUE 400 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MUE 415 Jazz Ensemble Techniques 2  
Double Numbered with: MUE 617

MUE 416 Psychological and Sociological  
Aspects of Music 2-3 IR  
Introduction to psychophysiological and sociophysiological processes involved in musical behavior. For non-music majors: permission of instructor.

MUE 423 Teaching of Percussion  
Instruments 1-2 Y

Double Numbered with: MUE 623  
Laboratory in percussion instruments, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor.

MUE 431 Mngmt in Music Teaching 1-2 Y  
Double Numbered with: MUE 731

MUE 435 Choral Rehearsal Techniques  
2-3 Y

Double Numbered with: MUE 735  
Principles and techniques of conducting and rehearsing choral groups. Music literature for typical choral group in schools.

MUE 437 Instrumental Rehearsal Techniques in Music Education 2-3 Y  
Double Numbered with: MUE 737  
Principles and techniques of conducting and rehearsing instrumental groups. Music literature for typical instrumental groups in schools.

MUE 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

MUE 510 Practicum in Children's Choir 1-3  
Develop understanding, expertise, and practical experience working with a children's choir through score analysis, rehearsal observations, and conducting experiences. In-depth study of choral music appropriate for children's choirs of varying levels.

MUE 516 Technology in Music Education 3  
Philosophical foundation for marching bands. Lecture/lab format promoting discussion and practical application of skills necessary to organize, administer, and implement the high school band program successfully.

MUE 518 Marching Band Techniques 2 Y  
Philosophical foundation for marching bands. Lecture/lab format promoting discussion and practical application of skills necessary to organize, administer, and implement the high school band program successfully. Music education majors or permission of instructor.

MUE 520 Teaching of Classical Guitar 1-2  
Laboratory in guitar, emphasizing performance techniques, care of instrument, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper division status or permission of instructor. Music majors only.

## Physical Education

PED 200 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PED 201 Beginning Yoga 1 Y  
Knowledge and skill application of beginning Iyengar Yoga. Introduction to postures, breathing techniques, and simple meditation. Body awareness, incorporating strength, flexibility, and balance.

PED 203 Tai Chi I 1 Y  
An introduction to the art and science of Tai Chi including movement principles, basic concepts and techniques of internal training, and the health benefits of these techniques from an exercise science perspective.

PED 204 Pilates 1 Y  
Knowledge and skill application of Pilates. Focus on increase core strength, stability and flexibility, improved functional fitness, posture, balance, and enhanced performance in many sports-based activities.

PED 209 Adventure Activities I 1 Y  
Adventure activities including: group games, initiatives and ropes course elements. Principles of trust, communication, cooperation, respect, and responsibility

PED 211 Beginning Swimming 1 S  
For individuals with essentially no ability in and around the water. Develops basic swimming and survival skills at the individual's own pace.

PED 212 Intermediate Swimming 1 S  
For individuals who already possess the ability to swim and have minimal fear of the water. Safety skills and stroke development.

PED 213 Advanced Swimming 1 S  
Advanced techniques for stroke improvement and training. High-yardage workouts.

PED 214 Snorkeling 1 S  
Introduction to the underwater world. Use of mask, snorkel, and fins; other snorkeling skills. Individuals who take this class should be able to swim at an intermediate level. Course fee.

PED 216 Water Safety Instruction 2 Y  
Theory and practice of teaching beginning, intermediate, and advanced swimming and diving. A specific section activity may not be repeated for credit. Red Cross certification available.

PED 217 Lifeguarding 2 Y  
Designed to train individuals in all areas necessary to be considered a knowledgeable and capable lifeguard. Red Cross certification available.

PED 221 Scuba 1 S  
Basic skills and knowledge, from use of equipment to the physiology of diving. Participants must be able to swim at an intermediate level. Certification available. Scuba fee.

PED 223 Underwater Photography 1 S  
Introduces certified scuba divers to the skills and techniques of underwater photography. Course fee.  
PREREQ: PED 221.

PED 225 Advanced Scuba 1 S  
For basic open-water scuba divers. Develops knowledge, mental attitude, and physical skills. Scuba fee.  
PREREQ: PED 221.

PED 226 Bootcamp Fitness 1 S  
Boot camp is a challenging work out for your entire body increasing strength, muscle endurance, balance, and flexibility. It is a combination of cardio and strength training using only your body.

PED 228 Boxing Fitness 1 S  
To develop or enhance physical, mental and spiritual well-being through cardiovascular, strength and flexibility training using boxing techniques - punches, ducks, and slips.

PED 229 Cardio Kick Boxing 1 S  
CardioKickboxing is a total body fusion class that will up kick your cardio fitness to the next level while strengthening, defining and shaping your body! Suitable for all ages and fitness levels.

PED 230 Core Training 1 S  
Knowledge and skill application of core strength. Introduction to all muscles within the core.

PED 240 Individual/Dual Sports 1 Y  
This course covers most individual/dual sports. Emphasis is on how to teach them. Physical Education majors only. May not be repeated for credit.

PED 249 Body Works 1 IR  
Exercises designed for the general population that stretch, strengthen, and condition the body. Provides information on minimizing injury.

PED 250 Team Sports 1 Y  
Sections develop skill and knowledge in basketball, field hockey, soccer, softball, volleyball, etc.

PED 258 Rugby 1 Y  
Develops skills and tactics, including ball possession, field position, kicking, and passing.

PED 259 Varsity Athletics 0-1 S  
Varsity team members only. Sanctioned fall, winter, and spring intercollegiate sports. R7, 4 credits maximum

PED 261 Golf 1 S  
Basic skills, rules, strategies, terminology, equipment, and safety practices. Range practice, course play, lectures, and videotaping.

PED 262 Gymnastics 1 S  
Basic skills and understanding. Includes use of apparatus, tumbling, and basic movement skills.

PED 263 Self Defense for Women 1 S  
Identifying factors that increase the risk of being assaulted, including physical surroundings, demeanor, clothes, etc. Strategies for reducing those risks discussed and practiced. Means of dealing with different levels of intensity of assaults without escalating violence. Physical defense techniques.

PED 264 Beginning Karate 1 S  
Fundamentals, including flexibility and strength training, self-discipline, and confidence through practical applications. For men and women. No experience required.

PED 265 Intermediate Karate 1 S  
Advanced instruction. Sparring and other upper-level material.  
PREREQ: PED 264.

PED 266 Advanced Karate 1 Y  
Upper-level training in martial arts.  
PREREQ: PED 265.

PED 275 Beginning Tennis 1 S  
Basic skills, techniques, and knowledge.

PED 276 Intermediate Tennis 1 S  
Improves previously developed individual and team skills and strategies.

PED 277 Advanced Tennis 1 S  
Game strategies and advanced skill development for those who wish to participate in high-level competition.

PED 278 Beginning Fencing 1 S  
Develops basic skills and knowledge.

PED 280 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

PED 281 Downhill Skiing 1 Y  
Develops basic skills and knowledge appropriate to student's level of ability. A section on instructing skiing is available.

PED 282 Beginning Cross Country Skiing 1 IR  
Basic skills and knowledge.

PED 286 Beginning Horseback Riding 1 S  
Emphasizes dressage and the classical seat used in international competition. Develops horsemanship: saddling, bridling, grooming, riding position, and communications. Course fee.

PED 287 Intermediate Horseback Riding 1 S  
Further development of skills: balance, contact with the horse's mouth, teaching the horse to bend and keep rhythm, and smoother transitions. Course fee.

PED 288 Advanced Horseback Riding 1 S  
Promotes increased sensitivity between horse and rider. High-level horses are available for riders with appropriate skills. Course fee.

PED 289 Backpacking 1 S  
Course study and practical field experience. Develops skills and knowledge to enhance enjoyment of the outdoors. No previous outdoor camping/hiking experience needed. Course fee.

PED 291 Individualized Fitness 1 S  
Gives students the knowledge and ability to "get in shape." Developing exercise programs and performing fitness-related activities. Good preparation for all other fitness-related courses.

PED 292 Low Impact Aerobics 1 S  
Develops total fitness of the body through cardiovascular training, muscle toning, strengthening, and stretching. Low to relatively high intensity level, with impact remaining low (one foot always on the ground).

PED 293 High Impact Aerobics 1 S  
Develops total fitness of the body through cardiovascular training, muscle toning, strengthening, and stretching. High intensity level, incorporating a lot of jogging and jumping movements.

PED 294 Aerobic Dance 1 S  
Develops total fitness of the body through cardiovascular training, muscle toning, strengthening, and stretching. Moderate intensity level. Incorporates both dance and fitness-related movements.

PED 295 Weight Training 1 S  
Entry-level course emphasizing techniques and training concepts related to strength and endurance. Students use Nautilus and/or Universal Single- or Multiple-Station equipment.

PED 296 Advanced Weight Training 1 SI  
Advanced course using weight training as conditioning, emphasizing free weights.  
PREREQ: PED 295.

PED 299 Backpacking II 1 Y  
Designed for backpackers with some experience who wish to develop the skills necessary to plan their own adventure. Involves classroom study and field experience. Course Fee.  
PREREQ: PED 289.

PED 301 Intermediate Yoga 1 S  
Knowledge and skill application of intermediate Yoga. Introduction to postures, breathing techniques, and simple meditation. Body awareness, incorporating strength, flexibility, and balance.

PED 303 Tai Chi II 1 Y  
A continuation of Tai Chi I, focuses on: the second slow set; the partner practice of double-hand push hands, and additional exercises for developing coordinated, whole-body strength  
PREREQ: PED 203.

PED 380 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Professional Physical Education

### PPE 177 Introduction to Health and Physical Education 3 Y

Introduction to the historical, philosophical, and sociological perspectives of school health education and physical education. National data, reform, and standards; and best practices in teaching.

### PPE 200 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### PPE 235 Teaching K-12 Health-Related Fitness 3 Y

Basic skills and methods for teaching health-related fitness activities in the K-12 population.

### PPE 295 Introduction to Exercise Science 3 S

Topics in exercise science including exercise physiology, mechanics of human motion, motor behavior, sports psychology.

### PPE 300 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### PPE 325 The Philosophy, Principles and Organization of Athletics in Education 3 S

Philosophy and principles of athletics as integral parts of physical education and general education. Coach as an educational leader; public relations; general safety procedures; general principles of school budgets, records, purchasing and use of facilities.

### PPE 326 Theory and Techniques of Coaching 2 S

Basic concepts of all sports. History, rules, regulations, and policies of interscholastic athletics. Skills, technical information, management, training and conditioning, equipment, safety and officiating. Supervised coaching experience with a specific sport required.

PREREQ: PPE 325.

### PPE 327 Health Sciences Applied to Coaching 3 S

Principles of physiology and psychology related to coaching; risk minimization; health issues and administrative procedures. Fitness, conditioning, sport specific training, nutrition and weight management related to coaching.

### PPE 381 Physical Education in the Elementary Schools 3 Y

Professional-preparation theory course for elementary physical education. Curriculum development, teaching methodology, perceptual motor programs, movement education, skill and knowledge assessment, and special elementary activities. Field application required.

### PPE 383 Physical Education in the Secondary School 3 Y

Professional-preparation theory course for secondary physical education. Curriculum issues, teaching methodology, mainstreaming, cognitive- and psycho- motor-assessment techniques, management skills, and selected secondary physical-education programs. Peer teaching.

### PPE 385 Motor Behavior Across the Lifespan 3 S

Psychological and physiological processes that affect motor performance. Motor control, motor learning and motor development across the lifespan.

### PPE 394 Assessment and Curriculum in Health and Physical Education 3 Y

Assessment as an integrated and seamless component of curricular planning and student learning in a variety of physical education and health education contexts.

PREREQ: PPE 177 AND (PPE 381 OR PPE 383)..

### PPE 395 Structural Kinesiology 3 Y

The interrelationship of the physiological processes and anatomy of the human body with respect to movement and exercise.

### PPE 408 Analysis of Human Motion 3 S

Structures and mechanical analysis of human movement as related to physical activity. Laboratory experience.

PREREQ: (BIO 216 AND 217) OR PPE 395.

### PPE 415 Physical Education Teacher Development 1 S

Analysis of physical education teaching behavior and decision making, teaching alternatives and effectiveness. Class management, professional issues, personal teaching strengths. Issues related to student teaching, methods, curriculum and career planning.

COREQ: EDU 508.

### PPE 435 Introduction to Sports Psychology 3 S

History, theories, and principles of sport behavior and personality; psychological skills and techniques for improving individual and team performance.

### PPE 470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### PPE 481 Adapted Physical Education 3 Y

Principles for developing strategies for programs to fulfill physical education and recreation needs and interests of individuals with physical, mental, or emotional disabilities. Field experience.

### PPE 483 Scientific Principles of Conditioning 3-6 Y

Double Numbered with: PPE 683  
Development of physical conditioning programs based on scientific principles.  
PREREQ: BIO 216 AND BIO 217.

### PPE 486 Prevention and Care of Athletic Injuries 3 S

Sports medicine: the prevention and care of athletic injuries. Equipment, nutrition, rehabilitation, first aid, follow-up care, taping, and use of protective padding.

### PPE 490 Independent Study 1-6 SI

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and department. R

### PPE 497 Physiology of Exercise 3 S

Principles of physiology as applied to exercise. Laboratory experiences.  
PREREQ: BIO 216 AND 217.

### PPE 499 Capstone Project 1-3 S

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

PPE 514 Exercise and Aging 3 Y  
The influence of aging on physical performance and the consequences of exercise on the physiological processes associated with aging.

PREREQ: PPE 497.

PPE 515 Graded Exercise Testing and Interpretation 4 IR

The administration of standardized exercise tests for the evaluation of health and fitness status. Presentation of normal and abnormal physiological responses these tests. Lab includes administration of exercise tests and equipment use.

PREREQ: PPE 497.

PPE 516 Exercise Prescription: Health and Disease 3 IR

Exercise prescription for health and fitness in the apparently healthy and a variety of clinical populations.

PREREQ: PPE 497.

PPE 517 Pathophysiology 3 Y

Physiology of disease processes emphasizing metabolic, cardiovascular, and neuromuscular pathophysiology. Suggested for students pursuing careers in clinical exercise physiology.

PREREQ: BIO 216 AND 217 AND PPE 497.

PPE 518 Cardiac Rehabilitation 3 Y

Exercise training and prescription for individuals with cardiovascular disease.

PREREQ: PPE 497.

PPE 519 Metabolic Aspects of Physical Activity 3 Y

Examines metabolic processes that influence or are affected by acute and chronic physical activity. Emphasis on metabolism and human physical performance.

PREREQ: PPE 497.

## Reading And Language Arts

RED 300 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

RED 315 Adult Literacy Education: Principles and Practicum 3 S

Methods of teaching adult literacy and discussion of broader, literacy-related social issues. Students tutor in local programs. Students must be able to schedule six hours each week for tutoring.

RED 326 Literacy Across the Curriculum 3-4 S

Double Numbered with: RED 625

Language acquisition and literacy development for diverse learners. Instructional approaches, materials, and assessment techniques to foster reading, writing, speaking, and listening for thinking and communicating. Includes minimum 25-hour field placement.

Adolescence and special subject preparation programs. Additional work required of graduate students.

RED 511 Adolescent Literature 3 Y

Fiction, poetry, drama, and nonfiction that meet the emotional, intellectual and social needs and interests of young people in middle, junior high, and high schools. Personal reading as well as curriculum-related literature.

RED 512 Children's and Adolescent Literature 3 Y

This course will explore the history of, characteristics of, benefits of, and problems surrounding the genres of children's and adolescent literature. The course will familiarize students with a variety of texts written for children and young adults and give a historical and theoretical background for the teaching of literature. First offered in Summer 2015

RED 547 Children's Literature 3 Y

History of literature for children; selection of books for children of different age groups. Methods of stimulating interest in literature. Use of literature as part of reading program.

## Science Education

SCE 200 Selected Topics: Science Education 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SCE 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SCE 413 Methods and Curriculum in Teaching Science 3 Y

Double Numbered with: SCE 613

Planning lessons, developing broad units, planning curricula for science 7-12. Prereq: Admission to secondary candidacy semester.

## Secondary Education

SED 340 Participation in the Professional Development School 0-1 S

Double Numbered with: SED 640

Individual involvement in research, discussion and decision making with teachers, university faculty, and colleagues who are members of the Professional Development School Cadres and Academies. R7, 8 credits maximum

SED 413 Methods and Curriculum in Teaching 3 Y

Double Numbered with: SED 613

Lesson planning, developing broad units, planning curricula for specific grade levels and content areas under the guidance of major advisors in each teaching field.

COREQ: SPE 412.

SED 415 Teacher Development 3 Y

Double Numbered with: SED 615

Analysis of teaching behavior and decision making, teaching alternatives and effectiveness. Classroom management, professional issues, personal teaching strengths. Issues related to student teaching, methods and curriculum.

COREQ: EDU 508.

SED 434 Teaching and Learning Functions 3 E

Crosslisted with: MTD 434; Double Numbered with: SED 634

Functions as an organizing theme for mathematics education, 5-14. Theoretical development of the function concept and multiple representations. Applications throughout algebra with applications to geometry and probability. Use of software and data collection equipment. Additional work required of graduate students.

SED 437 Teaching and Learning Geometry 3 O

Crosslisted with: MTD 437; Double Numbered with: SED 637

Geometric thinking as an organizing theme for mathematics education, 5-14. Theoretical development of geometric concepts and notion of proof. Applications and connections of geometry throughout the curriculum. Use of geometry software. Additional work required of graduate students.

SED 522 Study of Social Studies 3 IR

Culmination of the social studies sequence. Development of the field, persistent issues involved in content, organization, teaching methods, and teacher preparation. Nature of content as it influences instructional decisions.

## Systems & Information Science

### SIS 100 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

## Special Education

### SPE 311 Perspectives on Disabilities 3 S

Overview of learner characteristics and service delivery models for students with disabilities; selected issues in child protection; problem solving processes for inclusive schools and communities. Weekly field experience getting to know a child with a disability.

### SPE 324 Differentiation for Inclusive Education 3 S

Strategies to support and promote the learning of all students (including those with disabilities and challenging behavior). Differentiation, adaptation, active learning techniques, inclusive lesson and unit planning, assessment and collaborative teaching. Implementation during field experience.

PREREQ: EED 314; COREQ: EED 323 AND 328 AND 336 AND 362.

### SPE 357 Deafness and Disability 3 SS

Crosslisted with: DSP 357

Examines the relationship between deaf and disability studies and explores deafness as both a social construction and an identity.

### SPE 412 Adapting Instruction for Diverse Student Needs 3 Y

Double Numbered with: SPE 612

Methods and materials to ensure that diverse student needs are met in classrooms. Focus on individual differences in learning, behavior, physical abilities, and emotional characteristics. Other differences will also be considered (e.g., race, gender). Additional work required of graduate students. Admission to a teacher preparation program.

### SPE 434 Collaborative Teaching for Inclusive Education 3 S

Inclusive instructional strategies for students with disabilities, with particular focus on students with autism. Collaborative teaching approaches, IEP implementation, positive behavior supports, fostering communication and adaptations to access enriching curricula. Implementation during field experience.

Effective Fall 2010

PREREQ: SPE 324; COREQ: EDU 508.

### SPE 500 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### SPE 520 Methods and Curricula in Early Childhood Special Education 3 Y

Curricula, program design, and teaching methods for educating infants and young children with disabilities.

# Faculty

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Kal Alston, Professor

Ph.D., University of Chicago, 1989  
Philosophy in education, gender and race;  
popular culture

Barbara Applebaum, Professor, Chair  
Ph.D., Ontario Institute for Studies in  
Education of the University of Toronto, 1994  
Feminist ethics, feminist philosophy, and  
critical race theory

Christine Ashby, Assistant Professor  
Ph.D. Syracuse University 2008  
Inclusive education, disability studies, autism  
and communication.

James Bellini, Professor  
Ph.D., University of Arkansas, 1995  
Rehabilitation research, disability policy,  
rehabilitation evaluation

Sharif Bey, Assistant Professor  
Ph.D. Pennsylvania State University 2007  
Community based arts programing, African-  
American art education history, unofficial  
Slovak art, post soviet art education reforms,  
conceptual art and its implications to art  
education.

Douglas Biklen, Professor, Dean Emeritus  
Ph.D., Syracuse University, 1973  
Child advocacy, public policy, facilitated  
communication, inclusive education

Benita Ann Blachman, Trustee Professor  
of Education and Psychology  
Ph.D. University of Connecticut 1981  
Learning and reading disabilities; prevention of  
reading difficulties; early reading intervention;  
early language factors that predict reading  
achievement.

Marlene Blumin, Professor  
Ph.D., Cornell University, 1988  
College readiness, cognitive strategies,  
technology and curriculum in undergraduate  
education, learning models in post-secondary  
settings

Rachel Brown, Associate Professor  
Ph.D., University of Maryland, 1994  
Reading, strategy, instruction, cognition,  
instructional technology

Tom Brutsaert, Associate Professor, Chair  
Ph.D. Ph.D. Cornell University 1997  
Human adaptation to high altitude, exercise at  
altitude, fetal programming and effects on  
muscle function and physical activity.

Diane Canino-Rispoli, Instructor  
C.A.S. Syracuse University 1991 Educational  
Leadership  
M.S. Reading Education Syracuse University  
B.S. State University College at Buffalo  
Elementary Education Research interests  
include instructional leadership as it relates to  
supporting teacher effectiveness.

Julie Causton, Associate Professor  
Ph.D., University of Wisconsin-Madison,  
2003  
Special education, differentiation, universal  
design for instruction, professional  
collaboration, paraprofessional support

Kelly Chandler-Olcott, Professor, Chair  
Ed.D., University of Maine, 1998  
Adolescent literacy, Content literacy, and  
English education

John Coggiola, Associate Professor  
Ph.D., Florida State University, 1997  
Music education

Luis Columna, Associate Professor  
Ph.D., Texas Woman's University 2007  
Adapted physical education, physical activity  
among families of children with disabilities,  
inclusive teacher preparation, diversity,  
multicultural education

Alanna Rochelle Dail, Assistant Professor  
Ph.D., Vanderbilt University 2004  
Reading and Language Arts

Elisa DeKaney, Associate Professor  
Ph.D., Florida State University, 2001  
Choral music, and conducting, Brazilian music,  
music and culture

Keith C. DeRuisseau, Associate Professor  
Ph.D., Florida State University, 2002  
Skeletal muscle physiology, sarcopenia, disuse-  
mediated skeletal muscle atrophy

Helen M. Doerr, Laura J. and L. Douglas  
Meredith Professor  
Ph.D., Cornell University, 1994  
Secondary mathematics education, teacher and  
student learning, mathematical modeling, and  
mathematical communication.

Benjamin H. Dotger, Associate Professor  
Ph.D., North Carolina State University, 2006  
Teacher professional development,  
educational administration

Sharon Dotger, Associate Professor  
Ph.D. North Carolina State University 2006  
Science teaching and learning, lesson study,  
writing in science.

Jodi Dowthwaite, Research Assistant  
Professor  
Ph.D., Cambridge University, (Churchill  
College Cambridge, U.K.) 1997  
Development of musculoskeletal strength and  
body composition across the lifespan, effect  
of exercise on skeletal growth and relative  
bone strength in girls, osteoporosis and  
fracture prevention

Jason Duffy, Assistant Professor  
Ph.D. University of Rochester, 2013  
Counselor Education and development, clinical  
mental health counseling.

Timothy K. Eatman, Assistant Professor  
Ph.D., University of Illinois-Champaign, 2001  
Educational equity; higher education; publicly  
engaged scholarship, faculty rewards;  
institutional planning and leadership; P-16;  
institutional collaboration; diversity, STEM  
success

Catherine M. Engstrom, Associate  
Professor, Chair  
Ph.D., University of Maryland, 1991  
Student personnel administration, counseling,  
and personnel services

Gail Ensher, Professor  
Ed.D., Boston University, 1971  
Early childhood education of special-needs  
students

Beth Ferri, Professor  
Ph.D., University of Georgia, 1997  
Disability studies, inclusive education, women  
with disabilities, feminist and critical  
pedagogies and methods, qualitative and  
participatory research methods, narrative  
inquiry

Alan Foley, Associate Professor  
Ph.D., University of Wisconsin, 2001  
Curriculum and instruction, educational  
communications and technology

Marcelle Haddix, Dean's Assistant Professor  
Ph.D., Boston College, 2008  
English education, critical literacy, racial and  
linguistic diversity in teacher education

Wendy S. Harbour, Lawrence B. Taishoff  
Assistant Professor  
Ed.D. Harvard University 2008  
Disability in k-12 and higher education,  
disability studies, deaf studies, universal design.

- Kevin Heffernan, Assistant Professor  
Ph.D., University of Illinois at Urbana-Champaign 2008  
Effect of acute exercise and exercise training on vascular and autonomic function in health and disease
- Juliet Hess, Assistant Professor  
Ph.D. Ontario Institute for Studies in Education  
University of Toronto, 2013 Anti-oppression education, music education for social justice, ethics in world music study
- Nicole R. Hill, Professor, Chair  
Ph.D. Ohio University, 2002  
Clinical mental health counseling; counselor education and supervision; counseling adolescents and children; mental health and wellness; professional development
- Kathleen A. Hinchman, Professor, Interim Associate Dean  
Ph.D., Syracuse University, 1985  
Adolescent literacy and literacy teacher education
- Dawn Johnson, Associate Professor  
Ph.D., University of Maryland 2007  
Experiences of women of color in math, science, and engineering programs, the impact of social justice education courses on attitudes toward diversity
- Stefan Keslacy, Assistant Professor  
Ph.D., University of Montpelier I School of Medicine (France), 2005  
Cellular effects of exercise, inflammation and obesity, NF-kB and insulin resistance
- Tiffany Koszalka, Professor, Chair  
Ph.D., Pennsylvania State University, 1999  
Technology integration in K-12 science, math, geography; technology learning environments
- Jing Lei, Associate Professor  
Ph.D., Michigan State University, 2005  
Learning, technology, culture
- Gretchen Lopez, Assistant Professor  
Ph.D., University of Michigan, 1993  
Intergroup relations, multicultural education, social identities
- Melissa Luke, Associate Professor  
Ph.D. Syracuse University 2007  
School Counseling program implementation and supervision, school-family-community partnerships to support college access for historically marginalized students.
- Gerald M. Mager, Laura J. and L. Douglas Meredith Professor  
Ph.D., Ohio State University, 1978  
Teacher education, career development, supervision and curriculum
- Jeffery Mangram, Associate Professor  
Ph.D., Syracuse University, 2006  
Urban education and media literacy
- Joanna O. Masingila, Laura J. and L. Douglas Meredith Professor, Interim Dean  
Ph.D., Indiana University, Bloomington, 1992  
Teaching and Leadership; Area Coordinator, Mathematics Education;  
Ethnomathematics, teacher education, multimedia case studies in teacher professional development; connecting mathematics practice in and out of school
- Beth Myers, Research Assistant Professor  
Ed.D., University of Pennsylvania, 2012  
Inclusive education; autism; critical disability studies; practitioner inquiry
- Leonese Nelson, Research Assistant Professor  
Ph.D. Syracuse University 2004  
American politics, public administration, and student development in the STEM field for grades K-6
- Michael L. Norris, Assistant Professor  
Ph.D. The Ohio State University, 2013  
Health and physical education pedagogy, teacher preparation; adapted physical education, coaching and preschool physical activity
- Suzanne Oliver, Assistant Professor  
Ph.D. University of Illinois at Urbana-Champaign, 1994  
Dance; kinesiology; Alexander technique; movement education
- Elizabeth C Payne, Associate Professor, Part-time  
Ph.D. University of Houston 2002  
Sociology of education, qualitative research methodology, critical theory, youth culture, LGBTQ youth.
- Mario Rios Perez, Assistant Professor  
Ph.D., University of Illinois, Champaign-Urbana, 2012  
History of education, Latina/Latino history, urban education, race and immigration
- Emily E. Robertson, Associate Professor  
Ph.D., Syracuse University 1981  
Philosophy of education, moral and social philosophy, philosophy of the social sciences
- Dalia Rodriguez, Associate Professor  
Ph.D., University of Illinois, Champaign-Urbana, 2005  
Racial inequality, qualitative research methods, policy studies
- James Haywood Rolling Jr., Professor, Program Chair  
Ph.D., Teacher's College, Columbia University, 2003  
Studio arts as research practice, visual culture and identity politics, curriculum theory
- Zaline M. Roy-Campbell, Associate Professor  
Ph.D. University of Wisconsin-Madison 1992  
Unpacking multicultural literacy effective instruction for disenfranchised students, dimensions of content literacy for English language learners.
- Mara Sapon-Shevin, Professor  
Ed.D., University of Rochester, 1976  
Teaching for social justice, anti-racism, inclusive education, cooperative learning, and teacher education
- Derek X. Seward, Assistant Professor  
Ph.D., University of Rochester, 2009  
Counselor education, the experiences of graduate students of color in diversity courses, multicultural training methods
- Scott L. Shablak, Research Professor  
Ph.D, Syracuse University 1971  
Program and training assessment and evaluation; organizational and professional development; grant design and development; leadership effectiveness; successful study and student motivational strategies
- Joseph Shedd, Associate Professor  
Ph.D., New York State School of Industrial and Labor Relations, Cornell University, 1989  
Collective bargaining, organizational behavior
- Corinne Roth Smith, Professor  
Ph.D., Syracuse University, 1973  
School psychological assessment and intervention practices, learning disabilities
- Nick L. Smith, Professor  
Ph.D., University of Illinois, 1975  
Evaluation and applied field research methodology
- Steven J. Taylor, Centennial Professor; Director, Center on Human Policy  
Ph.D., Syracuse University, 1977  
Public policy, sociology of disability, advocacy, qualitative research

George Theoharis, Associate Professor,  
Chair

Ph.D., University of Wisconsin-Madison,  
2004

School leadership, inclusive education,  
elementary social studies

John W Tillotson, Associate Professor

Ph.D., University of Iowa, 1996

Science teaching preparation, teacher beliefs

Kathleen Utter-King, Research Assistant

Professor

Ph.D., University of Rochester 2007

Genetic epidemiology, evidence based practice  
in exercise and sports science

Linwood G. Vereen, Associate Professor

Ph.D. University of Nevada-Reno, 2000

Clinical mental health counseling; counselor  
education and supervision; counseling , group  
counseling, humor in counseling

Qiu Wang, Assistant Professor

Ph.D., Michigan State University 2010

Research methodology; educational  
measurement; statistical modeling

Diane Wiener, Research Associate Professor

Ph.D. University of Arizona, 2005

Critical disability theory; representations of  
identities in media; discourse analysis; learner-  
centered education

Louise C. Wilkinson, Distinguished  
Professor of Education, Psychology and  
Communication Sciences

Ed.D., Harvard University, 1974

Language and literacy learning, teacher  
education, education policy, qualitative  
assessment

Marion Wilson, Associate Professor

M.A. Columbia University 1990 & M.F.A.

University of Cincinnati 1993

Public Art, Social Sculpture, Community and  
new genre art practices; Urban Education

# College Of Engineering And Computer Science

Laura J. Steinberg, Dean  
227 Link Hall  
lcs.syr.edu/



## About The College

These are exciting times in engineering and computer science. Revolutionary changes in multiple areas continue to transform the operations of most traditional employers of engineers and computer scientists. The demand for individuals with degrees in engineering and computer science is greater than ever. In addition, new nontraditional opportunities for engineering and computer science graduates are opening in law, medicine, public policy, finance, management, and communications. Traditional tools and technical know-how are often no longer enough. Today's engineers and computer scientists must possess a broader set of perspectives, experiences, and skills to contribute successfully in a dynamic, rapidly changing world.

Syracuse University College of Engineering and Computer Science (E&CS) offers courses and programs that are designed to prepare leaders for a high-technology, knowledge-based global community. Through courses in the college and across the University, E&CS offers students a breadth of opportunities and experiences that is unmatched by programs at most other universities.

The college offers ten undergraduate programs: bachelor of science programs in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer engineering, electrical engineering, environmental engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, and bachelor science program in computer is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>. In addition we offer, in collaboration with the i-School, the bachelor of science in Systems & Information Science.

New engineering and computer science students enroll in ECS 101 Introduction to Engineering and Computer Science. ECS 101 provides a broad introduction to each of our degree programs, allowing students an opportunity to explore each area before they choose a major. ECS 101 is also open to students of other SU colleges who are interested in exploring the areas of engineering or computer science as a potential field of academic study.

E&CS students may choose from a variety of study options, including technical and non-technical minors, combined B.S./M.S. degree programs, and a combined undergraduate degree program between E&CS and the College of Arts and Sciences. The college also offers its students opportunities for co-op, study abroad, and undergraduate research.

Founded in 1901, E&CS enjoys a long-standing reputation for excellence and innovation. The college community is composed of outstanding students, faculty, and staff who are dedicated to personal excellence and success.

## Educational Mission And Vision

### THE COLLEGE MISSION

The mission of the college is to promote learning in engineering and computer science through integrated activities in teaching, research, scholarship, creative accomplishments, and service.

### THE COLLEGE VISION

The vision of the college is to earn recognition among universities for engineering and computer science programs that prepare leaders for a high-technology, knowledge-based, global community. The vision for E&CS is a distinct student-centered research university model for engineering and computer science education. Features of this model include the following:

- the commitment that all programs relate directly to students and their learning experiences;
- the commitment that research is an integral element of the learning environment;
- the flexibility for students to pursue the diversity of learning opportunities available in a broad university setting; and
- the commitment to world-class quality in courses and programs.

## Accreditation

The college offers nine undergraduate programs: bachelor of science programs in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer engineering, electrical engineering, environmental engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, and bachelor science program in computer is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

### STUDENT OUTCOMES

Student outcomes in all B.S. in engineering programs:

- (a) an ability to apply knowledge of mathematics, science, and engineering
- (b) an ability to design and conduct experiments, as well as to analyze and interpret data

- (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- (d) an ability to function on multidisciplinary teams
- (e) an ability to identify, formulate, and solve engineering problems
- (f) an understanding of professional and ethical responsibility
- (g) an ability to communicate effectively
- (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- (i) a recognition of the need for, and an ability to engage in life-long learning
- (j) a knowledge of contemporary issues
- (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Student outcomes in the B.S. in computer science program:

- (a) An ability to apply knowledge of computing and mathematics appropriate to the discipline
- (b) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- (c) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
- (d) An ability to function effectively on teams to accomplish a common goal
- (e) An understanding of professional, ethical, legal, security and social issues and responsibilities
- (f) An ability to communicate effectively with a range of audiences
- (g) An ability to analyze the local and global impact of computing on individuals, organizations, and society
- (h) Recognition of the need for and an ability to engage in continuing professional development
- (i) An ability to use current techniques, skills, and tools necessary for computing practice.

## Undergraduate Program Overview

The college offers ten undergraduate programs: bachelor of science programs in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer engineering, electrical engineering, environmental engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, and bachelor science program in computer is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

Aerospace Engineering

- Bioengineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Environmental Engineering
- Mechanical Engineering
- Systems and Information Science

### General Regulations

For academic rules and regulations that apply to all University students, see the Academic Rules and Regulations section of this catalog, which also contains special regulations that apply only to students matriculated in the College of Engineering and Computer Science.

Engineering and computer science students enrolling at Syracuse University must maintain at least a 2.0 grade point average in all engineering, mathematics, and science courses taken at SU. Furthermore, all students must satisfactorily complete at least 24 credits, including summer courses taken here or transferred to Syracuse University from another institution, within any 12-month period to maintain satisfactory progress, with a 2.0 semester and overall average.

For graduation, students must have a minimum cumulative GPA of 2.00 and at least a 2.00 GPA in all ECS, mathematics, and science courses taken at Syracuse University. In addition, students must meet all degree requirements specific to their chosen major.

## Arts And Sciences/ Engineering & Computer Science (Combined Degrees)

Arts and Sciences contact the Advising and Academic Support Office, 329 Hall of Languages, 315-443-3150.

Engineering and Computer Science contact Maria Marceau, Director of Student Records, 130 Link Hall, 315-443-5191.

Engineering Faculty, See individual departments listed in the “College of Engineering and Computer Science.”

The College of Arts and Sciences, in cooperation with the College of Engineering and Computer Science, offers a five-year combined curriculum. Students complete the requirements for and receive two degrees—one degree in a major of their choice in engineering or computer science and one degree in a major in the College of Arts and Sciences. Students who enter this program are urged to talk with advisors in both departments in which they plan to major as soon as possible. It is important that they learn the curricular requirements of each department in order to understand how best to merge the two sets of

requirements.

Students register with the College of Arts and Sciences as the home college for the first three years. They receive a basic education in mathematics and science along with a liberal education in the social sciences and humanities. While most of the coursework taken during that time is in the liberal arts, approximately one quarter of the program consists of first- and second-year courses in the engineering field chosen by the students.

After completing the third year, students transfer the home college designation to the College of Engineering and Computer Science while maintaining a connection with the College of Arts and Sciences. The fourth and fifth years of the program focus on engineering subjects. The B.A. or B.S. degree in the Arts and Sciences major may be awarded upon completion of the fourth year, but increased scheduling options are possible by completing both degrees at the end of the fifth year.

While some flexibility is possible in the program, it is a formalized curriculum. Students usually major in mathematics, biology, physics, or chemistry in the College of Arts and Sciences, although other majors are allowed upon approval by both colleges. The completion of the combined degree program requires a minimum of 150 total credits earned.

Admission requirements are the same as those for students entering the College of Engineering and Computer Science. Students who are already enrolled in the College of Engineering and Computer Science or the College of Arts and Sciences may transfer into the combined program provided requirements can be met. Such transfers must be approved by both colleges.

## Intra-University Transfer

Students who wish to transfer into any program within the College of Engineering and Computer Science from another school or college within the University should have a strong record of achievement and demonstrated success in key technical courses and a cumulative GPA of 3.00. Specifically, it is critical for the applicant to have proven their ability to excel in college-level calculus (by completing at least one of MAT 295, 296, or 397 with a grade of B- or better) and science (by completing at least one set of PHY 211/221 or CHE 106/107 with a grade of B- or better). Students who wish to major in computer science must also complete CIS 252 with a grade of at least a B.

## E&CS PRIDE OFFICE

PRIDE Office (Programs Rooted In Developing Excellence) provides programming that meets the needs of and fosters excellence in the educational, professional, and personal development of all students with particular emphasis on African American, Latino/a, Native American, and women students in the College of Engineering and Computer Science.

PRIDE Office offers programs that focus on student development and their academic success including the SummerStart Program, the E&CS Pathfinders (peer advisors), and academic advising for newly admitted students. In addition, first-year students are invited to participate in the E&CS Learning Community in the STEM Residential College located in Shaw Hall which allows for formed social connections and peer collaboration on similar academic pursuits.

Additional programs include Academic Excellence Workshops (AEW), which focus on the mastery of calculus and other fundamental engineering courses and the STAR (Students Taking Academic Responsibility) Program, which provides support in the nonacademic skills that are necessary to ensure student success; and the PRIDE Incentive Program, which celebrates the students' academic achievement.

PRIDE is also committed to helping students develop leadership skills through involvement in recognized student organizations. The activities, leadership opportunities, and community service projects sponsored by the organizations are important to the students, the college, the University, and the local Syracuse community, as they prepare to be future societal leaders.

PRIDE evolved from the Minority Engineering Program (MEP) Office established in 1976.

Students interested in the PRIDE Office programs should contact the director's office, 123 Link Hall, 315-443-2582, [pride@lcs.syr.edu](mailto:pride@lcs.syr.edu).

## Co-Op

The Engineering and Computer Science Cooperative Education program (Co-op) empowers undergraduate students to take advantage of experiential learning opportunities that have proven to aid them in successfully reaching their post-graduate goals. The Co-op program consists of full-time professional work primarily during the summer. This design allows students the opportunity to gain more than six months of paid work experience in their field of study and still graduate in four years. Working during the academic year is an option that students may choose, with the understanding that their ability to graduate on time may be affected. To be eligible, students must be enrolled full time in the College of Engineering and Computer Science.

Contact Cooperative Education Program, 121 Link Hall, 315-443-2582.

## Undergraduate Minors

### Engineering Students

Engineering students can pursue any minor within the University. Students are required to complete from 128 to 139 credits, depending on their program of study. Minors can be earned by taking optional or additional coursework. Minors commonly pursued include mathematics, economics, and management.

### Computer Science Students

Computer science students can easily pursue any minor within the University. Of the 123 credits required for graduation, 9 credits are free electives. Minors commonly pursued are mathematics, cognitive science, or operations management.

#### All Other Students

Students enrolled in colleges other than Engineering and Computer Science can earn a minor in computer science. Students with sufficient background in math and science can pursue a minor in computer engineering or electrical engineering.

#### Bioengineering Students

Bioengineering students can earn a mathematics minor within the prescribed curriculum. Other minors (e.g., biology) can be earned by taking additional courses. Students enrolling with AP credit or who take summer school courses can easily select from a variety of minors.

#### Computer Engineering Students

Students can easily pursue two minors simultaneously. Without adding any courses to their programs of study, they can pursue a minor in mathematics, and a second one in a discipline outside the College of Engineering and Computer Science.

#### Electrical Engineering Students

Students can easily pursue a technical minor, a non-technical minor without adding any additional course to their program of study. Additionally, a mathematics minor can be obtained by taking only one additional math course.

#### MINOR IN COMPUTER ENGINEERING

Minor Coordinator - C.Y. Roger Chen, 4-133 Center for Science and Technology, 315-443-4179, crchen@syr.edu .

The minor in computer engineering (18 credits) must include the following courses:

ECS 102 Introduction to Computing

CSE 261 Digital Logic Design

CSE 281 Computer Organization and Assembly Language

CSE 283 Introduction to Object-Oriented Design

CSE 381 Computer Architecture

CSE 382 Algorithms and Data Structures

#### MINOR IN COMPUTER SCIENCE

Minor Coordinator - Jae Oh, 4-283 Center for Science and Technology, 315-443-4740, jco@syr.edu .

The minor in computer science requires the completion of at least 18 credits in CIS courses with an overall grade point average of at least 2.5, and with no individual course grade below C-. These 18 hours must include CIS 252, CIS 275, CIS 351, and at least one course chosen from CIS 352, CIS 473, and CIS 477. At least 12 credits must come from courses numbered 300 or greater. All courses must be intended for CIS majors.

#### MINOR IN ELECTRICAL ENGINEERING

Minor Coordinator - Prasanta Ghosh, 4-131 Center for Science and Technology, 315-443-4440, pkghosh@syr.edu .

The minor in electrical engineering (EE) (20 credits) is available to any Syracuse University student who has the appropriate prerequisites such as calculus and calculus-based physics. Students must complete 8 credits of required sophomore courses shown below and 12 credits of junior- or senior-level elective courses offered by the electrical engineering program. Students may choose the elective courses to give them a breadth of coverage or complete a track\* in a specific concentration area as described in the catalog.

ELE 231 EE Fundamentals I (3)

ELE 291 EE Lab I (1)

ELE 232 EE Fundamentals II (3)

ELE 292 EE Lab II (1)

ELE EE Junior or senior courses (12)

\*Tracks are intended to provide a cohesive set of technical electives for EE students. A track consists of a sequence of two senior-level elective courses and their appropriate prerequisites. The current examples of tracks in EE are all 12 credits. More information can be found in the EE curriculum description.

#### MINOR IN ENERGY SYSTEMS

Minor Coordinator - H. Ezzat Khalifa , 263 Link, 315-443-2341, hekhalif@syr.edu .

This minor option will provide students enrolled within the College of Engineering and Computer Science with a grouping of courses/electives that will provide academic depth in the field of energy related systems in 4 different but related tracks.

Admission to the energy systems minor is by permission of an academic advisor and requires students to be enrolled in a B.S. program in Engineering within the College of Engineering and Computer Science.

Students with sufficient technical background from other Syracuse University Academic Units may be considered for admission to the Minor in Energy Systems and such decisions will be made by the E&CS Energy Systems Committee.

#### Course Requirements

The following courses must be taken by all students within the minor regardless of the specific track:

ECN 203 Economic Ideas and Issues (3)

MAE 251 or CEN 252 Thermodynamics (3)

MAE/CIE 548 Engineering Economics and Technology Valuation (3)

## MAE/CIE 551 Energy Conversion (3)

In addition, 3 track-specific courses must be taken from a list of required and elective courses for each of the 4 individual tracks. These 4 track specific lists are available from an academic advisor.

Tracks:

- 1) Thermo-Mechanical Energy Systems Track
- 2) Nuclear Energy Track
- 3) Renewable Energy Track
- 4) Electric Power Track

For a list of courses, please contact the Minor Coordinator.

### MINOR IN ENGINEERING AND COMPUTER SCIENCE MANAGEMENT

Minor Coordinator Engineering - Frederick Carranti, 247 Link Hall, 315-443-4346, carranti@syr.edu.

Minor Coordinator Management - Rachel DuBois, 415 Whitman School of Management, 315-443-9609, rdubois@syr.edu.

This minor is designed to provide EC&S students with a relevant non-technical minor. It is open to all SU students with approval of their home college. The requirements are:

ECS 391 Legal aspects of ECS

ECS 392 Ethical Aspects of ECS

Two upper-level management courses selected from the following:

EEE 370 Introduction to Entrepreneurship

EEE 382 Entrepreneurial Marketing

EEE 451 Finance for Emerging Enterprises

FIN 301 Finance for Non-Business Students

LPP/SHR 450 Sustainability

SHR 355 Introduction to Human Resource Management

Two courses selected from the following:

ACC 201 Introduction to Accounting for Non-Management Students

ECN 203 Economic Ideas and Issues

MAR 301 Marketing for Non-Management Students

SHR 247 Strategy and Leadership

## Study Abroad

The College of Engineering and Computer Science, in cooperation with Syracuse University Study Abroad, offers qualified engineering and computer science students the opportunity to spend a year at a British university in London or a semester in Madrid, Hong Kong, Sydney, Dublin, Istanbul, and Santiago.

In a time of rapidly growing global complexity and opportunity, international study is an increasingly important and relevant component of undergraduate study, especially for students preparing for careers in engineering or computer science. Of all the major professions, engineering and computer science are the most likely to involve international activity. In addition to strong technical skills, employers are increasingly looking for international experience, cross-cultural skills and perspectives, and an understanding of the world's diversity

For over 20 years, E&CS in a partnership with SU Abroad, has been a national leader in providing distinctive international study opportunities. These opportunities include:

- Year Abroad Program in London
- Spring Semester in Madrid
- Fall or Spring semester in Dublin, Hong Kong, Santiago and Sydney
- Spring Semester in Istanbul, Turkey
- Summer Research program in Strasbourg, France

E&CS international study programs give students the opportunity to gain global experience, develop new ways of viewing the world, form lasting friendships abroad, and deepen their connection to other countries, languages and cultures. Students with these experiences gain a competitive edge in today's multinational, multicultural environment.

To participate, students must be in good academic standing with a cumulatively GPA of 3.0 and in one of Syracuse University's engineering or computer science programs or in an equivalent program elsewhere. Participants must also meet any language requirements of the host country.

For further information, contact the College of Engineering and Computer Science Study Abroad Office in 130 Link Hall or Syracuse University Study Abroad, 106 Walnut Place (suabroad.syr.edu).

## Facilities And Research

# Undergraduate

## Facilities

The College of Engineering and Computer Science has facilities in three buildings on the SU Main Campus: Edwin A. Link Hall, Bowne Hall and the Center for Science and Technology, located at the east end of the Quad. In addition, the college operates teaching and research facilities at the Institute for Sensory Research, located on SU's South Campus.

More than 200 computers are available around the clock for the exclusive use of students in engineering and computer science. These computers are housed in Windows, Mac and UNIX computer labs networked by up-to-date servers offering a range of software appropriate to the disciplines offered by the college. Information about E&CS specific IT resources can be found at <http://helpdesk.lcs.syr.edu/>.

Students in the college can readily access campus-wide resources operated by the University's central Information Technology Services (ITS) organization. Wireless network access is available in all campus buildings and across the Quad. Detailed information about campus-wide IT resources is available at <http://its.syr.edu>.

## RESEARCH

Encouraging undergraduate research is a hallmark of the College of Engineering and Computer Science. We recommend that students undertake research projects as independent study experiences for academic credit.

Individual students may advance the state of knowledge and its application in dramatic ways. Many of our juniors and seniors attend national meetings and present the results of their undergraduate research projects. It is not unusual for our students to win awards in national research paper competitions or to graduate with one or more publications in the archival literature to their credit.

# Graduate

## FACILITIES

The College of Engineering and Computer Science (E&CS) has facilities in three buildings: Edwin A. Link Hall; the Center for Science and Technology, located at the east end of the Quad; and the Institute for Sensory Research, located on the South Campus, approximately two miles away.

Each of the buildings has modern, fully equipped laboratories for research and special student projects, as well as ample space for graduate student offices, classrooms, and seminar rooms.

The college and University have invested heavily in the multidisciplinary research area termed "environmental quality systems" that includes civil and environmental engineering, chemical engineering, mechanical engineering, bioengineering, and electrical engineering and computer science. Research and graduate education facilities dedicated to these activities include a \$4.5 million, 22,000-square foot suite of environmental engineering laboratories that house state-of-the-art analytical laboratories, a clean room, bioenvironmental facilities, and a GIS lab; a \$1.8 million Building Energy and Environmental Systems Laboratory that contains a unique environmental chamber-climate chamber pair for testing building materials, HVAC and filtration technologies, and indoor air quality; a material characterization laboratory for studying hygrothermal performance of building envelopes; a two storey full-scale Building Envelope Systems Technology laboratory for in-situ field testing of up to 32 envelope assemblies of 4'x9" high, a full-scale lab for intelligent environmental control in office buildings; and a number of additional laboratories that are dedicated to fundamental research focused on the quality of urban and built environments.

Bioengineering laboratories dedicated to biomaterials, tissue engineering, polymer physics, materials chemistry and biomanufacturing housed in the Syracuse Biomaterials Institute's experimental facilities in Bowne Hall. Instrumentation available can be found at the following URL: <http://biomaterials.syr.edu/research/facilities1/>.

Chemical engineering has research laboratories devoted to supercritical extraction and oxidation, selective ion adsorption, polymer science and technology, nanotechnology, complex fluids and rheology, molecular biology, biochemical engineering and computational modeling of chemical and biological systems/processes. Instrumentation available in these laboratories includes a combination gas chromatograph-mass spectrometer, high-pressure equipment for studying extraction and chemical reaction, Fourier transform infrared spectrometer, differential scanning calorimeter, an instrumented bioreactor, rheometers, spectrometers, flow cytometer and high performance computer clusters housed in the Green Data Center.

The electrical engineering and computer science department provides its students with extensive computing facilities in UNIX, Windows and Mac environments as well as with laboratories that cover a wide spectrum of areas, including communications, high performance computing, microwaves, multimedia, networking, optical fibers, and photonics. The Smart Grid and Power Systems laboratory is equipped for experimentation in power electronics, electromechanical devices, measurements in power systems (including synchrophasor technology, smart home metering and nonlinear loading), and advanced microgrid power system functionality (with renewable energy sources, transmission lines, distribution system, and both static and programmable loading). The Ultrafast Nanophotonics Lab is equipped with state-of-the-art tunable femtosecond laser, cw-lasers, inverted fluorescence microscope, spectrometer and CCD camera, among other optics and electronics to study the electromagnetic properties of novel nanophotonic devices and systems.

A wide range of laboratories exists in mechanical and aerospace engineering, with particular strength in the areas of fluid dynamics, energy systems, solid mechanics and materials characterization, and intelligent manufacturing. Cutting-edge facilities, including a full-motion flight simulator, exist for research in indoor environmental quality, composite materials, aerodynamics, computer-aided design, and the application of knowledge-based systems.

Bioengineering laboratories are devoted to teaching principles and applications of biomaterials, biomechanics, and bioinstrumentation. The biomechanics laboratory is equipped with mechanical testing devices, force and motion analysis systems, and a networked computer cluster for data acquisition and

analysis. The bioinstrumentation laboratory contains equipment for design and fabrication of electronic devices and a networked computer cluster facilitates circuit design, simulation, data acquisition, and analysis. A suite of biomaterials laboratories includes a scanning electron microscope, atomic force microscope, differential scanning calorimeter, and FTIR for material characterization. There are also facilities for static and dynamic mechanical testing, anomechanics, polymer synthesis and characterization, and tissue engineering.

The Department of Civil and Environmental Engineering maintains high-quality, advanced laboratory facilities for research and graduate instruction. These include a geosynthetic laboratory, a structure/materials laboratory, a geofoam laboratory, a soil mechanics laboratory, and a particle analysis laboratory.

The structure/materials laboratory includes a large reaction frame capable of testing full-scale beams and other structural elements and systems. The Geofoam Research Center maintains a well-equipped laboratory for geomaterial testing and research.

The environmental engineering laboratories occupy about 22,000 square feet and consist of more than 20 state-of-the-art labs, including a Class 100 clean room for trace analyses. The labs contain extensive analytical equipment, microprocessors for chemical and biological analysis, and advanced computing hardware and software.

Syracuse University is one of a select group of institutions to have access to a federal laboratory for quick fabrication of student-designed integrated circuit chips, which greatly strengthens courses in designing and testing very large-scale integrated (VLSI) circuits.

The computing facilities in E&CS and the University's computing services are outstanding. The computers are available for student use, and students are encouraged to use them throughout their academic careers.

Two all-University public labs of personal computers are located in Link Hall. In addition, the college has UNIX, Windows, and Macintosh microcomputer labs in the facilities that are dedicated and available around the clock to engineering and computer science students.

## RESEARCH

Programs of fundamental and applied research conducted by the faculty of each department have led to significant contributions in many engineering and computing fields. Graduate students, undergraduate students, research assistants, fellows, and postdoctoral fellows actively participate in this research.

The College of Engineering and Computer Science is closely affiliated with the CASE Center and Syracuse Center of Excellence in Environmental and Energy Systems (COE). Faculty and students work through the CASE Center to solve applied research and development problems using software engineering for small and large companies across New York State. Through the Syracuse COE, faculty and students work closely with industries as well as government laboratories to develop technologies that have the greatest market potential as well as advancing the fundamental science and engineering in energy and environmental systems.

The Center for Environmental Systems Engineering, the Building Energy and Environmental Systems Laboratory, Geofoam Research Center, the Institute for Sensory Research, and the Institute for Manufacturing Enterprises provide graduate students with a wealth of opportunities to contribute to important research problems across the full range of disciplines in the college.

## Academic Offerings

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### Aerospace Engineering Program

Department Chair: Dr. H. Ezzat Khalifa, 263 Link Hall, [hekhalif@sy.edu](mailto:hekhalif@sy.edu), 315-443-1286

Program Director: Dr. John Dannenhoffer, 245 Link Hall, [jfdannen@syr.edu](mailto:jfdannen@syr.edu), 315-443-3340

Faculty Jeongmin Ahn, Michelle Blum, Thong Dang, John F. Dannenhoffer, Barry D. Davidson, Mark N. Glauser, Melissa Green, Vadrevu R. Murthy, Jianshun S. Zhang

The mission of the aerospace engineering program at Syracuse University is to educate and to promote learning and discovery in aerospace engineering and to prepare students for a career of technical excellence and professional growth and leadership in a complex and competitive technological environment.

The program educational objectives of the aerospace engineering curriculum are to enable graduates of the program to do the following:

- apply the physical, mathematical, and engineering sciences to professional practice or to advanced study in aerospace engineering or related fields;
- be cognizant of societal context and ethical responsibility in professional practice;
- function productively on teams and communicate ideas to both technical and non-technical audiences; and
- be agile, innovative, and adaptable in an increasingly diverse and global environment.

Opportunities for aerospace engineers will continue to expand within the military, civilian, and general aviation sectors spurred on by the development of new aircraft that extends to civilian supersonic aircraft and unmanned aerial vehicles. This growth in aircraft demand (as well as the need for higher efficiencies, longer ranges, and lower cost aircraft) is being fueled by the increasing global demand for air travel in the international marketplace. Space exploration has also entered a period of increased activity that includes an increased exploitation of satellites to service the demand for global

communication, the need for low-cost assured access to space, the international space station, and planetary missions.

We prepare our students for this changing environment by providing an opportunity to gain marketable and relevant skills that can lead to success in a wide range of careers. The distinctive signature of undergraduate aerospace engineering at Syracuse University is the ability to fit a minor into the curriculum. Students explore the breadth of Syracuse University by complementing their aerospace engineering degree with a minor in business, public policy, fine arts, public communications, and many more.

The technical focus of the B.S. program in aerospace engineering (AEE) is to develop a sound educational basis for the analysis and design of aerospace systems, with emphasis on the structure, aerodynamics, flight/orbital mechanics, and propulsion of aircraft and spacecraft systems. Aerospace engineering is a field constantly pushing the limits of technology. The B.S. AEE program stresses the fundamental physical, mathematical, and engineering principles that form the broadest base for future work in a fast-changing field.

The B.S. AEE program is designed to prepare graduates for either immediate employment or for continuing studies at the graduate level. One distinguishing feature of the program is the opportunity for undergraduate students to participate in current research projects, which provide first-hand exposure both to advanced topics of current interest and to challenges typical of graduate school or industrial research. Research experiences for undergraduates are available in many areas, including fluid dynamics, aerodynamics, solid mechanics, and applications of high-performance computers.

Requirements for the B.S. AEE program appear below. For the first five semesters the recommended sequence of courses for the B.S. AEE program is nearly identical to the recommended program for the B.S. degree in mechanical engineering (MEE), which demonstrates the similarity and complementary nature of the two disciplines. Courses carrying the prefix MAE indicate class material and assignments are drawn from both aerospace and mechanical engineering applications. Beginning in the sixth semester, students in the B.S. AEE program begin taking courses addressing topics unique to aerospace engineering, including aerodynamics, aircraft structures, propulsion systems, and the dynamics of aerospace vehicles.

Experience with open-ended design problems is obtained in a sequence of courses that span the entire curriculum. The sequence begins with introductory design experience in the first-year courses ECS 101 and MAE 184. Upper-division courses involving design content include classes on the mechanics of solids and structures, aerospace structures, aerospace vehicle dynamics, aerodynamics, dynamics and controls, and propulsion. The design sequence culminates with the cap-stone design experience (AEE 472) that requires students to integrate knowledge from all areas in the design of a complete aircraft or spacecraft system.

Topics relevant to the analysis and design of space vehicles are included in AEE 446, 471, and 577.

The B.S. AEE curriculum allows for programs of study that can be tailored by students to take advantage of the diversity of strengths across both ECS and all of Syracuse University. We provide engineering students with opportunities to complete minors in areas that can complement technical knowledge—such as international affairs, business, and public policy—thus enhancing the value and attractiveness of a Syracuse engineering education. Students can also elect to pursue a technical minor or take a distribution of electives, which will include liberal arts classes, free electives, and additional depth in aerospace engineering.

Students are encouraged to develop a plan for elective selection during their first year. The planning process should include discussions with the student's academic advisor, other faculty members, and peer advisors. The MAE Department offers most undergraduate technical elective courses on a two-year cycle. It may be necessary for a student to modify the sequence of courses to accommodate a technical elective course of personal interest.

In addition to successfully completing the requirements for the aerospace program, graduates from this program must also achieve the following student outcomes:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs, including the integration of multiple aeronautical topics
- an ability to function on multidisciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in global and societal contexts
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
- an ability to apply knowledge of aerodynamics, structures, propulsion, flight mechanics and orbital mechanics in the analysis of aerospace vehicles.

This program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

#### Aerospace Engineering Requirements

##### First Year, Fall Semester

ECS 101 Introduction to Engineering and Computer Science (3)

MAT 295 Calculus I (4)

CHE 150 General Chemistry for Engineers (3)

CHE 151 General Chemistry for Engineers Lab (1)

WRT 105 Studio 1: Practices of Academic Writing (3)

Elective #1 (3)

Total 17

First Year, Spring Semester

MAE 184 Engineering Graphics and Computer-Aided Design (3)  
ECS 104 Engineering Computing Tools (3)  
MAT 296 Calculus II (4)  
PHY 211 General Physics I (3)  
PHY 221 General Physics Lab I (1)  
Elective #2 (3)  
Total 17

Second Year, Fall Semester

ECS 221 Statics (3)  
ECS 326 Engr. Matls. Prop. & Proc. (3)  
MAT 397 Calculus III (4)  
PHY 212 General Physics II (3)  
PHY 222 General Physics Lab II (1)  
Elective #3 (3)  
Total 17

Second Year, Spring Semester

MAE 251 Thermodynamics (4)  
ECS 222 Dynamics (3)  
ECS 325 Mechanics of Solids (4)  
MAT 485 Diff Eqn & Mat Alg for Engr (3)  
WRT 205 Studio 2: Critical Research and Writing (3)  
Total 17

Third Year, Fall Semester

MAE 315 Mechanical and Aerospace Engineering Lab I (3)  
MAE 341 Fluid Mechanics (4)  
MAE 312 Engineering Analysis (3)  
ELE 231 Electrical Engineering Fundamentals I (3)  
ELE 291 Electrical Engineering Laboratory I (1)  
Elective #4 (3)  
Total 17

Third Year, Spring Semester

AEE 342 Aerodynamics (4)  
AEE 343 Compressible Flow (3)  
MAE 321 Dynamics of Mechanical Systems (3)  
ELE 312 Linear Control Systems (3)  
Elective #5 (3)  
Total 16

Fourth Year, Fall Semester

AEE 427 Dynamics of Aerospace Vehicles (4)  
AEE 446 Propulsion (3)  
AEE 471 Design and Analysis of Aerospace Structures (4)  
Elective #6 (3)  
Total 14

Fourth Year, Spring Semester

AEE 472 Synthesis of Aerospace Systems (4)  
AEE 577 Space Flight (3)  
Elective #7 (3)  
Elective #8 (3)  
Total 13  
Program Total 128

There are a total of 24 elective credits in the B.S. AEE program. These credits may be distributed in one of the following two ways:

1. A student may complete any University minor that requires at least 12 credit hours beyond the core AEE curriculum. In addition to, or as part of, this minor, at least 9 credit hours must be taken from the social sciences or humanities (SS/H). Excluding those courses that count towards the minor, a maximum of 6 credit hours that are neither SS/H nor technical electives may be taken as part of the 24 elective credits.
2. A student who does not complete a University minor must take at least 9 credits from the social sciences or humanities (SS/H), at least 6 credits of technical electives, and a maximum of 6 credit hours that are neither SS/H nor technical electives.

Technical electives consist of all 300 level and above courses offered by any department within the college of engineering and computer science or by the math or physics departments, except for ECS 391, ECS 392 and any course numbered 300, 400 or 500 that is offered outside of the MAE Department.

However, in some instances these courses may be approved by petition. In addition, no more than 3 credit hours of technical electives may be taken outside of the MAE department.

Other:

GPA: 2.0 (All students must earn a minimum cumulative GPA of 2.00 and at least 2.00 GPA in all math, science and engineering courses in order to be awarded an SU degree.)

Senior Thesis: N/A

Study Abroad: N/A

Note: Do not repeat prerequisites for admission into the major.

Recommended Technical Electives

AEE 490 Independent Study

AEE 527 Helicopter Dynamics

MAE 355 Fundamentals of Heat and Mass Transfer

MAE 430 Intro. to Practical Design Optimization

MAE 536 Composite Materials

MAE 545 Applications of Fluid Dynamics

MAE 571 Application of Computational Fluid Dynamics

MAE 573 Applications of Finite Element Analysis

MAE 585 Principles of Turbomachines

MAE 587 Design of Solar Energy Systems

MAE 588 Principles of Wind Turbines

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## Aerospace Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 128 credits for the Aerospace Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Bioengineering

Department Chair: Radhakrishna Sureshkumar, 329F Link Hall, 315-443-1931; fax: 315-443-9175

Faculty Rebecca Bader, Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Jeremy L. Gilbert, Julie M. Hasenwinkel, James H. Henderson, George C. Martin, Patrick T. Mather, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Radhakrishna Sureshkumar, Lawrence L. Tavlarides, Angela Zachman

Adjunct/Research Faculty: Jurgen Babirad, Gino Duca, Bart Farell, Eric Finkelstein, Shelley Stephens, Kent Ogden, David Quinn, Dana Radcliffe, Suresh Santanam, Fred Werner

Affiliate Faculty: Joseph Chaiken, Andria Staniec Costello, Martin Forstner, Juntao Luo, Yan-Yeung Luk, Cristina Marchetti

Emeritus Faculty: Gustav Engbretson, John Heydweiller, Philip Rice, Klaus Schroder, Robert L. Smith, S. Alexander Stern, Chi Tien, Josef Zwislocki

Undergraduate Bioengineering Program Director: Angela Zachman, 361 Link Hall, 315-443-4848

The mission of the Department of Biomedical and Chemical Engineering is to provide students with mentoring, curricular experience, and extracurricular opportunities consistent with their individual career objectives in order to

- prepare them to apply science, mathematics, and engineering knowledge to serve the needs of society;
- instill in them a deep sense of respect for others and a strong foundation in professional and social ethics; and
- develop in them the understanding that continued education will further their professional and leadership skills.

#### Program Educational Objectives

The objectives of the undergraduate bioengineering program are:

- graduates will master engineering and biological fundamentals enabling them to apply critical thinking to solve problems at the interface of science or medicine and engineering;
- graduates will have a broad education that develops their ability to make informed and ethical decisions and understand the engineer's role in society;
- graduates will be able to effectively communicate their work and ideas;
- graduates will be prepared for success in the biomedical industry and postgraduate education in engineering, science, or professional studies.

The bioengineering program is designed for students interested in the application of physical science techniques to life-science problems, preparing them for graduate study in bioengineering or medicine as well as for careers in biomedical instrument design, medical device design, orthopedic prosthesis design, or engineering support for healthcare services. Introduced in the student's first semester and culminating in the senior year with a capstone project, the important topic of engineering design is an integral part of the curriculum. Fundamental concepts from courses across the entire curriculum are integrated with formally delivered design concepts to produce a project. The project is presented to the faculty in both oral and written forms.

The bioengineering curriculum provides a solid foundation in mathematics, physics, engineering, and biology in preparation for advanced specialized studies. In consultation with a faculty advisor, students can specialize their curriculum to emphasize preparation for industry, research, or premedical studies. This curriculum shares several courses with the chemical engineering program. These courses provide our students with a strong background in the engineering sciences so they can explore emerging topics at the interface of the two fields. Students interested in research with the possibility of continued study in graduate school are encouraged to elect one or more independent study projects and a graduate-level course in an area of research interest. Appropriate use of electives in this emphasis and strong academic performance can lead to graduation with University Honors.

With the careful selection of electives, a student can meet the entrance requirements established by the Association of American Medical Colleges.

This program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

#### Bioengineering Course Requirements

First Year, Fall Semester (17)

CHE 106 General Chemistry Lecture I (3)

CHE 107 General Chemistry Lab I (1)

MAT 295 Calculus I (4)

ECS 101 Introduction to Engineering and Computer Science (3)

WRT 105 Studio 1: Practices of Academic Writing (3)

Social Science/Humanities elective (3)

First Year, Spring Semester (15)

CHE 116 General Chemistry Lecture II (3)

CHE 117 General Chemistry Lab II (1)

MAT 296 Calculus II (4)

PHY 211 General Physics Lecture I (3)

PHY 221 General Physics Lab I (1)

ECS 104 Engineering Computational Tools (3)

Second Year, Fall Semester (16)

CHE 275 Organic Chemistry I (3)

CHE 276 Organic Chemistry Lab (2)

BEN 231 Mass and Energy Balances (3)

MAT 397 Calculus III (4)

PHY 212 General Physics II (3)  
PHY 222 General Physics Lab II (1)

Second Year, Spring Semester (18)  
BEN 212 Experimental Methods in Chemical Engr & Bioengr (3)  
ECS221 Statics (3)  
ELE 231 Electrical Engineering Fundamentals I (3)  
MAT 485 Differential Equations and Matrix Algebra for Engineers (3)  
WRT 205 Studio 2: Critical Research and Writing (3)  
Social Science/Humanities elective (3)

Third Year, Fall Semester (16)  
ECS 326 Engr. Materials, Properties & Processes (3)  
BEN 301 Biological Principles for Engineers (4)  
BEN 333 Fluid Transport (3)  
ELE 232 Electrical Engineering Fundamentals II (3)  
Social Science/Humanities elective (3)

Third Year, Spring Semester (17)  
BIO 327 Genetics and Cell Biology II (3)  
BEN 341 Fundamentals of Heat and Mass Transfer (4)  
BEN 364 Quantitative Physiology (4)  
BEN 575 Process Control (3)  
Social Science/Humanities elective (3)

Fourth Year, Fall Semester (16)  
BEN 465 Biomechanics (3)  
BEN 481 Bioinstrumentation (3)  
BEN 485 Bioengineering Laboratory (4)  
Social Science/Humanities electives (3)  
Technical electives (3)

Fourth Year, Spring Semester (15)  
BEN 468 Biomaterials (3)  
BEN 487 Bioengineering Capstone Design (3)  
Social Science/Humanities elective (3)  
Technical electives (6)

Total 130

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## Bioengineering/Business Administration

Contact - Danielle Goodroe, Associate Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT or GRE as part of the application process. Applicants will be considered for the program based on their GMAT or GRE score, academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

### 3+2 Program Requirements:

Students will complete 130 credits for the Bioengineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

**Transfer Credit** - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

**Satisfactory Progress** - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Chemical Engineering

Department Chair: Radhakrishna Sureshkumar, 329F Link Hall, 315-443-1931; fax: 315-443-9175

Faculty Rebecca Bader, Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Jeremy L. Gilbert, Julie M. Hasenwinkel, James H. Henderson, George C. Martin, Patrick T. Mather, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Radhakrishna Sureshkumar, Lawrence L. Tavlarides, Angela Zachman

Adjunct/Research Faculty: Jurgen Babirad, Gino Duca, Bart Farell, Eric Finkelstein, Shelley Stephens, Kent Ogden, David Quinn, Dana Radcliffe, Suresh Santanam, Fred Werner

Affiliate Faculty: Joseph Chaiken, Andria Costello Staniec, Martin Forstner, Yan-Yeung Luk, Juntao Luo, Cristina Marchetti

Emeritus Faculty: Gustav Engbretson, John Heydweiller, Philip Rice, Klaus Schroder, Robert L. Smith, S. Alexander Stern, Chi Tien, Josef Zwislocki

Undergraduate Chemical Engineering Program Director: Katie Cadwell, 341 Link Hall, 315-443-4756, [kdcadwel@syr.edu](mailto:kdcadwel@syr.edu)

The mission of the Department of Biomedical and Chemical Engineering is to provide our students with mentoring, curricular experience and extracurricular opportunities consistent with their individual career objectives in order to:

- Prepare them to apply science, mathematics and engineering knowledge to serve the needs of society;
- Instill in them a deep sense of respect for others and a strong foundation in professional and social ethics;
- Develop in them the understanding that continued education will further their professional and leadership skills.

Graduates of the program will have mastered the chemical engineering fundamentals necessary to serve as practicing engineers and will be prepared for further studies in engineering, science, or other professions. These fundamentals include an understanding of basic engineering concepts, the collection of information from experimentation and from the scientific and technical literature, and the prediction of system behavior through the development and application of mathematical models.

Graduates will be able to apply critical thinking, problem solving, and teamwork and research skills to the design of chemical engineering processes and the solution of scientific and technical problems.

Graduates will be able to effectively synthesize and then communicate their work and ideas through written, oral, and visual and graphical formats and they will understand the impacts on and responsibilities to society of chemical engineering practices.

Chemical engineering has a rich past; chemical engineers have been identified with the large scale manufacture of numerous products including chemicals, fibers, foods, fuels, pharmaceuticals, plastics, pulp and paper, and rubber. Because chemical engineering is the most versatile of the engineering disciplines, chemical engineers in the future will contribute to diverse new and emerging technologies. They will seek new ways to process our energy and natural resources; they will play key roles in the areas of environmental cleanup and protection, management of hazardous wastes, and process and product safety. They will be involved in new technologies such as biotechnology and biomedicine, and in the development and production of new materials such as polymers, ceramics, and advanced composites.

The chemical engineering curriculum prepares students to apply the fundamentals of chemistry, physics, and engineering to problems related to the efficient and safe production of chemical and related products. The program focuses on developing a solid background in the principles of chemical engineering and their applications to the challenges facing industry and society. If a student wishes to specialize in biochemical, environmental, or polymer engineering, he or she can select appropriate science and engineering courses to supplement the general curriculum.

This program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The curriculum prepares students to apply the fundamentals of chemistry, physics, mathematics, and engineering to diverse problems in the field of chemical engineering. Engineering design concepts are integrated throughout all four years of the chemical engineering program.

Beginning with ECS 101 in the fall of the first year, students are introduced to the engineering method for problem solving, and concepts of engineering design. In this way students see how mathematics, basic sciences, and engineering science provide the necessary tools for design and how to go about the design process.

During the sophomore, junior, and senior years, problems of increasing complexity and open-endedness are presented to students in the chemical engineering courses, continually challenging their technical expertise, creativity, and knowledge.

Finally, in their senior year courses, students are required to complete major design projects in their courses and laboratory. These projects are open-ended and designed to build upon the students' understanding and mastery of the fundamentals of mathematics, sciences, and engineering topics. They also consider broader social issues in addition to technical issues such as environmental impact and safety.

Many students take advantage of the low student/faculty ratio by participating in research or independent study projects. There are part-time, summer, co-op, and internship opportunities available for students seeking work experience. International study opportunities are also available.

Graduates from the program in chemical engineering must achieve the following student outcomes:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, and to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs;
- an ability to function on multidisciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- the broad education necessary to understand the impact of engineering solutions in a global and societal context;
- a recognition of the need for, and an ability to engage in life-long learning;
- a knowledge of contemporary issues;
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;
- an appreciation of diversity issues in society.

#### Chemical Engineering Course Requirements

##### First Year, Fall Semester (17)

CHE 106 General Chemistry Lecture I (3)  
CHE 107 General Chemistry Lab I (1)  
MAT 295 Calculus I (4)  
ECS 101 Introduction to Engineering and Computer Science (3)  
WRT 105 Studio 1: Practices of Academic Writing (3)  
Social Science/Humanities elective (3)

##### First Year, Spring Semester (15)

CHE 116 General Chemistry Lecture II (3)  
CHE 117 General Chemistry Lab II (1)  
MAT 296 Calculus II (4)  
PHY 211 General Physics Lecture I (3)  
PHY 221 General Physics Lab I (1)  
ECS 104 Engineering Computational Tools (3)

##### Second Year, Fall Semester (16)

CHE 275 Organic Chemistry I (3)  
CHE 276 Organic Chemistry Lab (2)  
CEN 231 Mass and Energy Balances (3)  
MAT 397 Calculus III (4)  
PHY 212 General Physics II (3)  
PHY 222 General Physics Lab II (1)

##### Second Year, Spring Semester (18)

CEN 212 Experimental Methods in Chemical Engr & Bioenr (3)  
CEN 252 Chemical Engineering Thermodynamics I (3)  
MAT 485 Differential Equations and Matrix Algebra for Engineers (3)  
WRT 205 Studio 2: Critical Research and Writing (3)  
Social Science/Humanities elective (6)

##### Third Year, Fall Semester (17)

ECS 326 Engr. Materials, Properties & Processes (3)  
CHE 346 Physical Chemistry Lecture I (3)

CHE 347 Physical Chemistry Lab I (2)  
CEN 333 Fluid Transport (3)  
CEN 353 Chemical Engineering Thermodynamics II (3)  
WRT 307 Adv. Writing Studio: Professional Writing (3)

Third Year, Spring Semester (15)  
CEN 311 Chemical Engineering Laboratory I (2)  
CEN 341 Fundamentals of Heat and Mass Transfer (4)  
CEN 575 Process Control (3)  
CHE 356 Physical Chemistry II (3)  
Technical elective (3)

Fourth Year, Fall Semester (17)  
CEN 412 Chemical Engineering Laboratory II (2)  
CEN 542 Mass and Heat Transfer Operations (3)  
CEN 587 Chemical Reaction Engineering (3)  
Technical elective (3)  
Social Science/Humanities electives (6)

Fourth Year, Spring Semester (13)  
CEN 574 Process Design (4)  
Social Science/Humanities elective (3)  
Technical electives (6)

Total 128

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## Chemical Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 128 credits for the Chemical Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Civil Engineering

Department Chair: Dr. Ossama "Sam" Salem, 151 Link Hall, [omsalem@syr.edu](mailto:omsalem@syr.edu), 315-443-2311

Program Director: Dr. Riyad S. Aboutaha, 151 Link Hall, [rsabouta@syr.edu](mailto:rsabouta@syr.edu), 315-443-2311

Civil Engineering Faculty Riyad S. Aboutaha, Shobha K. Bhatia, Douglas F. Call, David G. Chandler, Ruth Chen, Andria Costello Staniec, Joan V. Dannenhoffer, Cliff I Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Lashun K. Thomas, Eric Mun Lui, Sinead Mac Namara, Dawit Negussey, Ossama "Sam" Salem, Laura J Steinberg

The mission of the Civil and Environmental Engineering Department is to promote learning and the creation, dissemination, and application of knowledge in civil and environmental engineering through integration of teaching, scholarship, and service.

The goal of the Civil and Environmental Engineering Department is to prepare students for engineering practice, advanced study, and lifelong learning in civil and environmental engineering. Graduates are expected to be proficient in the fundamentals of sustainable engineering analysis and design and understand the importance and methods of effective communication. Students are encouraged to use the extensive international network and educational resources of Syracuse University and the Syracuse community to broaden and enhance the quality of their university education.

The educational objectives of the civil engineering program are to produce graduates who:

- can apply technical knowledge and problem-solving skills to advance their careers and serve the community;
- are prepared for engineering practice and advanced studies in civil engineering;
- will engage in life-long learning to keep themselves abreast of new developments in their fields of practice or study; and
- are capable of effective written and oral communications

Our student outcomes are in line with those identified by the Engineering Accreditation Commission of ABET. At the time of their graduation, our students should have acquired:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economical, environmental, and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

#### Civil Engineering Description

Civil engineering is the broadest of the engineering disciplines, extending across many interrelated technical specialties. These technical specialties include structures, hydraulics, geotechnical, environmental, transportation, construction, and water resources. Civil engineers plan, design, and construct facilities essential to modern life in both the private and the public sectors. These facilities vary widely in nature, size, and scope, and include bridges, buildings, tunnels, highways, transit systems, dams, airports, irrigation projects, facilities for water, collection and treatment facilities for wastewater, and many others.

The first-year curriculum emphasizes the physical and mathematical sciences and includes computer-based approaches to civil engineering problems. Additional courses in mathematics and the sciences, as well as introductory courses in civil engineering measurement and sustainability, are taken during the second year. The last two years of the program focus on planning, design, analysis, and management in civil engineering. The curriculum provides flexibility to allow students to customize their academic programs and take advantage of the diversity across both the college and all of Syracuse University. The four-year program includes coursework in the social sciences and humanities necessary for a well-rounded academic background.

By selecting electives carefully, students may specialize in any of the following areas: structural engineering, which deals with the analysis, design, and rehabilitation of structures under static and dynamic loads; environmental engineering, which involves the purification and distribution of water in cities and the proper disposal of sewage and industrial wastes; geotechnical engineering, which analyzes the properties of soils and rocks that support and affect the behavior of structures, pavements, and underground facilities and construction engineering which concerns the planning and execution of large-scale construction and infrastructure projects. Students may complete minors in a variety of subjects.

This program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Adjustments in the program can be made to accommodate transfer students from accredited two- and four-year institutions so they may develop their programs of study as soon after admission as possible.

#### Civil Engineering Curriculum

First Year, Fall Semester

MAT 295 Calculus I (4)

CHE 150 General Chemistry for Engineers (3)

CHE 151 General Chemistry for Engineers Lab (1)

ECS 101 Introduction to Engineering and Computer Science (3)

WRT 105 Studio I: Academic Writing (3)

SS/Hum Elective (3)

TOTAL 17

First Year, Spring Semester

MAT 296 Calculus II (4)

PHY 211 General Physics I (3)  
PHY 221 General Physics Lab I (1)  
SS/Hum Elective (3)  
Select one of the following two courses:  
EAR 203 Earth System Science (4)\*  
SS/Hum Elective (3)  
TOTAL 14/15

Second Year, Fall Semester  
MAT 397 Calculus III (4)  
PHY 212 General Physics II (3)  
PHY 222 General Physics Lab II (1)  
ECS 221 Statics (3)  
CIE 272 CIE Measurements (3)  
Select one of the following two courses:  
EAR 110 Dynamic Earth (4)\*  
SS/Hum Elective (3)  
TOTAL 17/18

Second Year, Spring Semester  
MAT 485 Diff Eqn & Mat Alg for Engr (3)  
ECS 325 Mechanics of Solids (4)  
CIE 274 Sustainability Civil and Environmental Systems (3)  
WRT 205 Studio II: Critical Research (3)  
Select one of the following three courses:  
ECS 222 Dynamics (3)  
ELE 231 Elec Eng Fund I (3)  
MAE 251 Thermodynamics (4)  
TOTAL 16/17

Third Year, Fall Semester  
CIE 331 Analysis of Structures and Materials (3)  
CIE 337 Intro to Geotechnical Engineering (4)  
CIE 341 Intro to Environmental Engineering (3)  
CIE 327 Prin of Fluid Mechanics (4)  
SS/Hum Elective (3)  
TOTAL 17

Third Year, Spring Semester  
CIE 332 Design of Concrete Structures (3)  
CIE 338 Foundation Engineering (3)  
CIE 326 Engineering Materials (3)  
CIE 352 Water Resources Engineering (4)  
WRT 307 Adv Studio: Professional Writing (3)  
TOTAL 16

Fourth Year, Fall Semester  
CIE 443 Transportation Engineering (3)  
CIE 442 Treatment Proc in Env Eng (4)  
Technical Elective (3)  
Free Elective (3)  
SS/Hum Elective (3)  
TOTAL 16

Fourth Year, Spring Semester  
CIE 475 Civ/Env Engineering Design (4)  
Professional Elective (3)  
Technical Elective (3)  
SS/Hum Elective (3)  
TOTAL 13

Total Credits Required 127/128

\*take either EAR 110 or EAR 203, the other must be SS/Hum

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## Civil Engineering/Business Administration (3-2 Program)

Contact: Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, degoodro@syr.edu

Can Isik, Associate Dean, College of Engineering and Computer Science, 223 E Link Hall, 315-443-3604, cisik@syr.edu

**Program Description:** The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

**Accreditation:** The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

**Admission:** Students in the engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

**Degree Requirements:** Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

- Students will complete 128 credits for the civil engineering degree and an additional 54 credits for the MBA degree.
- Year 1 & 2: Enrollment in required undergraduate coursework
- Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework
- Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework
- Year 5: Completion of BS and MBA coursework

**Transfer Credit:** Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

**Satisfactory Progress:** Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Computer Engineering

Program Director Qinru Qiu, 4-206 Center for Science and Technology, 315-443-1836, Fax 315-443-2583; qiqiu@syr.edu

Faculty Amit Agrawal, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Wenliang (Kevin) Du, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Albert Goldfain, Mustafa Cenk Gursay, Carlos R.P. Hartmann, Robert Irwin, Can Isik, Philipp Kornreich, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Qinru Qiu, Laleh Rabieirad, James S. Royer, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Jian Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Hong Wang, Heng Yin, Edmund Yu

The Bachelor of Science in Computer Engineering (BSCE) program at Syracuse was originally established in 1969 through the former Department of Electrical Engineering and was the second such program of its kind in the nation. This program has been accredited by the Accreditation Board for Engineering and Technology (ABET) since 1973. Currently the BSCE program is housed in the Department of Electrical Engineering and Computer Science (EECS) which is a department in the College of Engineering and Computer Science (ECS).

Computer Engineering (CE) at Syracuse University has two primary foci: Computer Hardware Design: including an understanding of design methodologies for electronic circuits, digital systems, computer architecture and integrated circuits, and Computer Software Design: including an understanding of design methodologies for algorithms and data structures, operating systems, and a wide variety of software applications across various computer languages. In addition to design methodologies, test and verification principles are studied, as well as performance estimation and the underlying computation theory. There is an excellent opportunity in laboratories to put the theory and design methods into practice by using digital components, design simulators, and microcontrollers.

Part of the department's mission is to enable CE graduates to use computer engineering and other knowledge to solve relevant societal problems as described by the BSCE Educational Objectives. This is accomplished by a rigorous curriculum that prepares students to achieve the BSCE Educational Outcomes prior to graduation and the BSCE Educational Objectives after graduation.

### EDUCATIONAL OBJECTIVES FOR THE BSCE PROGRAM

The educational objective of the Bachelor of Science in Computer Engineering (BSCE) program in the Department of Electrical Engineering and Computer Science (EECS) at Syracuse University is to prepare well-rounded graduates that are ready for work and ready for change.

- Well-rounded graduates of the BSCE program are known by their professional competence, innovative thinking, willingness to further enhance their education, ability to work individually and in diverse teams, leadership abilities, communication skills, and integrity.

- Graduates of the BSCE program who are ready for work are engaged in applying the knowledge acquired in Computer Engineering, combined with their problem solving abilities, to produce feasible solutions to problems, in a timely manner, which are deemed important in industry, government, or academia.
- Graduates of the BSCE program who are ready for change exhibit the intellectual flexibility necessary to solve new problems in innovative ways by integrating multiple viewpoints from several disciplines in search of the best possible solutions or applying their knowledge to different professional disciplines.

#### STUDENT OUTCOMES FOR THE BSCE PROGRAM

In addition to successfully completing the requirements for the BSCE program which are described further on in this handbook, graduates from this program must also achieve the following educational outcomes prior to graduation:

#### BSCE STUDENT OUTCOMES

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- an ability to function on multidisciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- an ability to verify design correctness and evaluate performance of computing systems.

#### BSCE REQUIREMENTS

##### Program Components

The BSCE program has four fundamental educational components: mathematics and sciences, engineering, social sciences and humanities, and general education. A liberal number of courses have been set-aside as electives in order to allow students, with the guidance of their advisors, to customize their education according to their personal and career objectives. A summary of required and elective credits within each component is as follows:

Math and Science Education : 33 required, 0 elective; for a total of 33 credits;

Engineering Education: 48 required, 18 elective; for a total of 66 credits;

General Education: 12 required, 9 elective; for a total of 21 credits;

Social Science and Humanities Education: 3 required, 6 elective; for a total of 9 credits.

Total Credits 130

<u>A Typical Program of Study Presented by Semester</u>	<u>Credits</u>
First Year, Fall Semester	
ECS 101 Introduction to Engineering & Computer Science	3
MAT 295 Calculus I	4
CHE 150 General Chemistry for Engineers	3
CHE 151 General Chemistry for Engineers Lab	1
PHI 251 Logic	3
WRT 105 Writing Studio I	<u>3</u>
	17
First Year, Spring Semester	
ECS 102 Introduction to Computing	3
MAT 296 Calculus II	4
PHY 211 General Physics I	3
PHY 221 General Physics Lab I	1
Social Science/Humanities elective	3
Non-Eng./Comp. Science elective**	<u>3</u>
	17
Second Year, Fall Semester	
CIS 275 Introduction to Discrete Mathematics	3
CSE 283 Introduction to Object-Oriented Design	3
MAT 331 1st Course in Linear Algebra	3
ELE 231 EE Fundamentals I	3

ELE 291 EE Lab I	1
PHY 212 General Physics II	3
PHY 222 General Physics Lab II	<u>1</u>
	17
Second Year, Spring Semester	
CSE 261 Digital Logic Design	
CSE 281 Comp. Org. & Assembly Lang.	3
CSE 382 Algorithms and Data Structures	3
ELE 232 EE Fundamentals II	3
ELE 292 EE Lab II	3
WRT 205 Writing Studio II	1
	<u>3</u>
	16
Third Year, Fall Semester	
CSE 381 Computer Architecture	
CSE 397 Computer Lab I	3
CSE 384 Systems Programming	3
Non-Eng./Comp. Science Electives**	3
ECS 392 Ethical Aspects of ECS	3
Social Science/Humanities elective	3
	<u>3</u>
	18
Third Year, Spring Semester	
CIS 321 Intro to Prob. and Stat.*	
CSE 398 Computer Lab II	4
CSE 489 Web System Architecture & Programming	3
CSE 486 Design of Operating Systems	3
Technical Electives	3
	<u>3</u>
	16
Fourth Year, Fall Semester	
CSE 491 Senior Design Project I	
WRT 401 Tech Comm. Design Meth.	1
Technical electives	2
Non-Eng./Comp. Science Electives**	9
	<u>3</u>
	15
Fourth Year, Spring Semester	
CSE 492 Senior Design Project II	
WRT 402 Tech Comm. Proto. & Constr.	3
Technical electives	1
Non-Eng./Comp. Science elective**	6
	<u>3</u>
	13
Total	
	129

\*CIS 321 can be waived if a student takes both MAT 521 and MAT 525.

\*\*At least 3 of the 9 credits must be from the College of Arts & Sciences.

#### General Information

Note that you cannot take CIS 554 – Object-Oriented Programming in C++, to fulfill any requirement in the Computer Engineering undergraduate program. This is because a considerable amount of material covered in this course overlaps with the material covered in the core course CSE 283 – Introduction to Object-Oriented Design.

Note that CPS courses cannot be taken to fulfill any of the requirements for the Computer Engineering undergraduate program. These courses are designed for non-majors in Computer Engineering or in Computer Science.

#### Elective Courses

##### Technical Electives

Students fulfill 18 credits of technical electives. Out of the 18 credits, at least 6 of them must be selected from the Group A courses, which are yearly determined by the Computer Engineering Program Committee. For example, for the year 2014-2015, the following courses are in Group A.

- \*CSE 482/CSE 483 - Principles of Software Engineering/C# and Windows Programming
- CSE 464 – Introduction to VLSI Design
- CSE 561 – Digital Machine Design

(\*Only one of CSE 482 and CSE 483 will be considered as group A elective. If both are taken, the other one will be considered as a technical elective.)

The remaining technical electives can be selected from any CSE, CIS, or ELE courses, 300-level or above, including courses offered under special topics.

Some examples are listed below:

- ELE 331 - Digital Circuits And Systems
- ELE 333 - Analog Circuits
- ELE 346 - Semiconductor Devices
- ELE 351 - System and Signal Analysis
- CIS 352 - Programming Languages: Theory and Practice
- ELE 424 - Fundamentals of RF and Microwaves
- CIS 425 - Introduction to Computer Graphics
- ELE 431 - Analog Circuits and Systems
- CIS 453 - Software Specification and Design
- CIS 454 – Software Implementation
- CIS 467 - Introduction to Artificial Intelligence
- CIS 473 - Logic and Computability Theory
- CIS 483 - Introduction to Computer and Network Security
- CIS 500 - Programming in Java 5.0
- CIS 543/ELE 516 - Control of Robots
- CIS 581 - Concurrent Programming
- CSE 458 - Data Networks: Basic Principles
- CSE 581 - Introduction to Database Management Systems
- CSE 588 - Translator Design

Interdisciplinary (INT) Track:

Objective: To allow students to have a more broad education by being able to take more courses outside of the Department of Electrical Engineering and Computer Science (EECS).

Requirements to complete this track:

- Student must be awarded a minor or a second major in a discipline outside of the Department of Electrical Engineering and Computer Science (EECS), excluding a minor in Mathematics;
- Student may substitute up to six credit hours of technical elective courses to fulfill this minor or second major, while still meeting the requirement that at least 6 credits are selected from the Group A courses.

The Computer Engineering Program Committee will determine if a specific CSE 591 course can be used to fulfill one of the tracks.

Social Sciences and Humanities Electives

This 6-credit requirement may be fulfilled by any combination of courses whose contents are in the social science and humanities area. A glossary of course designations with such contents can be found in the Humanities Division and the Social Sciences Division of the College of Arts and Sciences with the exception of the following Anthropology - Physical courses: ANT 131, 331, 431, 432, and 433. These glossaries are given in The College of Arts and Sciences section of the Undergraduate Catalog.

Non-Engineering/Computer Science Electives

The purpose of this 9-credit requirement of non-engineering/computer science elective courses is to provide students with a broad educational experience in a diversity of subjects. Out of the 9 credits, at least 3 credits have to be from the College or Arts and Sciences. Moreover, technical courses offered by (or cross-listed with) the College of Engineering and Computer Science (ECS), courses with pass/fail grades, CPS courses, and 100-level courses in CHE, MAT, and PHY cannot be used to satisfy this requirement. IST courses will require permissions from academic advisors.

Minors

The Computer Engineering curriculum is flexible enough to allow a student to complete minors without taking additional credits or by taking only a few extra courses. Today's computer engineers work in an environment where they are expected to know not only computer hardware and software, but also material from a collection of other subject areas—from device technology or computer science to management and how computers affect the world. The computer engineering curriculum responds to this need by providing students with a strong basis in the fundamentals of computer engineering coupled with additional courses drawn from mathematics, electrical engineering and computer science. With the core courses in MAT and ELE, BSCE students normally are no more than 9 credits away from completing a minor in Electrical Engineering (ELE) or Mathematics (MAT).

Graduation Requirements

- students must complete their program of study satisfying all the course requirements described in Sections 4.2, 4.3, and 4.4;
- students cannot graduate with courses having missing grades or incompletes;
- students must have earned an average GPA of at least 2.0 (C) in all the engineering, mathematics and science courses. In addition, the overall GPA of all courses taken at Syracuse University must be at least 2.0 (C);

- Monitoring Student's Progress

Advising: Each student is assigned an academic advisor. A list of advisors can be found at the board outside Room 130 in Link Hall.

#### Helpful Advice

If you designate a minor in your program of study and you decide not to pursue it any longer, you must drop it before graduation. Otherwise, you will not be able to be certified for graduation because you have not fulfilled the requirements for this minor.

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## Computer Engineering Minor

Minor Coordinator - C.Y. Roger Chen, 4-133 Center for Science and Technology, 315-443-4179, crchen@syr.edu

The minor in Computer Engineering requires a minimum of 18 credit hours, 12 of which must be in 300 to 400-level coursework.

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## Computer Engineering

Bachelor of Science/Master of Science in Computer Engineering

#### Contact:

Qinru Qiu, Program Director, 4-133 Center for Science and Technology, 315-443-1836, Fax 315-443-2583; qiqiu@syr.edu

Faculty Amit Agrawal, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Wenliang (Kevin) Du, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Albert Goldfain, Mustafa Cenk Gursoy, Carlos R.P. Hartmann, Robert Irwin, Can Isik, Philipp Kornreich, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Qinru Qiu, Laleh Rabieirad, James S. Royer, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Jian Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Hong Wang, Heng Yin, Edmund Yu

#### Description:

This combined degree is for students who want to complete consecutively the Bachelor of Science (BSCE) and Master of Science (MSCE) degree in computer engineering. The combined degree is designed to be completed in 5 years. Two courses (6 credits) at the 500-level or higher may be counted towards both the Bachelor's and the Master's degrees. The student is expected to be certified for the Bachelor's degree at the end of the fourth year and for the Master's degree at the end of the fifth year. Students need to initiate the application process to the combined degree program during the first semester of their junior year of the BSCE program at Syracuse University. Admission decisions will be made on the academic performance of applicants. Students need to use the established process for regular MS applications.

Total Credits: 156

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## Computer Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, degoodro@syr.edu

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, cisik@syr.edu

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

#### 3+2 program requirements:

Students will complete 129 credits for the Computer Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Computer Science

Program Director Jae C. Oh, 4-206I Center for Science and Technology, 315-443- 4740, Fax 315-443-2583; jcoh@syr.edu.

Faculty Amit Agrawal, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Wenliang (Kevin) Du, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Albert Goldfain, Mustafa Cenk Gursoy, Carlos R.P. Hartmann, Robert Irwin, Can Isik, Philipp Kornreich, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Qinru Qiu, Laleh Rabieirad, James S. Royer, Tapan K. Sarkar, Fred Schlereth, Ernest Sibert, Q. Wang Song, Jian Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Hong Wang, Heng Yin, Edmund Yu

The mission of the computer and information science programs is to assist students to be ready for work and ready for change. This means preparing students to make professional contributions to computer and information science immediately upon graduation and throughout their professional careers, and to adapt to technological and societal changes.

The educational objective of the Bachelor of Science in Computer Science (BSCS) program in the Department of Electrical Engineering and Computer Science (EECS) at Syracuse University are :

- To prepare well-rounded graduates who are known by their professional competence, innovative thinking, ability to work individually and in diverse teams, leadership abilities, communication skills, and integrity.
- To prepare well-rounded graduates who engage in applying the knowledge acquired in their major, combined with their problem solving abilities, to produce feasible solutions to problems, in a timely manner, which are deemed important in industry, government, or academia.
- To prepare well-rounded graduates who exhibit the intellectual flexibility necessary to solve new problems in innovative ways by integrating multiple viewpoints from several disciplines in search of the best possible solutions.

This program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

The programs in computer science prepare professionals who will adapt to constant changes in technology and who will be leaders in developing the new technologies of the Information Age. The multidisciplinary nature of the curricula offers students a high degree of flexibility to design a program of study tailored to their interests and professional aspirations.

Computer science focuses on programming, algorithms, large-scale software development, and the principles of computing that underlie these areas. Syracuse's program weaves together an emphasis on fundamental principles with new developments in computing, producing graduates prepared either to begin careers or to pursue advanced studies in the field.

With this degree you will learn about:

- Computer and internet security
- Artificial intelligence and machine learning to develop machines that can work among humans.
- Operating system design to develop the next innovation to change Windows, Mac OS X and Unix or to invent a completely new operating system.
- Innovative thinking so you can design programs that control rockets, future search engines, and cars that drive themselves.
- Mathematics to reveal the limits of today's computers and explore the possibility of a new kind of computer that has yet to be imagined.
- Problem solving, independent thinking and team collaboration in developing a large-scale software systems with other computer scientists and software engineers.

Graduates of the Syracuse University bachelor of science in computer science program achieve the following student outcomes:

- (a) Ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline. In particular, students should be able to apply this knowledge in a way that demonstrates comprehension of the tradeoffs involved in modeling, design and development of software systems of various scales and complexity.
- (b) Ability to analyze a problem, and identify and define computing requirements appropriate to its solution.
- (c) Ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- (d) Ability to function effectively on teams to accomplish common goals
- (e) Understanding of professional, ethical, legal, security, and social issues and responsibilities.

- (f) Ability to communicate effectively.
- (g) Ability to analyze the local and global impact to computing on individuals, organizations, and society.
- (h) Recognition of the need for lifelong learning and an ability to engage in the same.
- (i) Ability to use current techniques, skills, and tools necessary for computing practice.
- (j) Ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- (k) Ability to apply design and development principles in the construction of software systems of varying complexity

## Distribution and Core Requirements

The programs are divided into a general education section, a mathematics section, and a major section.

### GENERAL EDUCATION SECTION

Completion of the general education section requires at least 51 credits of coursework, as follows. Each student is required to complete 6 credits of writing (WRT 105, 205) and 3 credits in presentational skills by taking at least one course out of the following: CRS 225 Public Advocacy, CAS/CRS 325 Presentational Speaking, IST 444 Information Reporting and Presentation. The student is further required to complete 12 credits of natural sciences and engineering including PHY 211/221 (see exclusions in the Undergraduate Student Handbook). These 12 credits must include a two-semester sequence in a laboratory science. The student is required to complete an additional 15 credits in social science and humanities (A/SS/H) courses offered by the College of Arts and Sciences or by the College of Visual and Performing Arts. In addition, the student is required to take PHI 251 and ECS 392 or equivalent. Finally, each student has 9 credits of free electives. This requirement can be satisfied by any courses except for CPS courses intended for non-majors. A list of such courses can be obtained from the CIS program office.

### MATHEMATICS SECTION

The mathematics section requires at least 15 credits of math. The student must take MAT 295, 296, either 397 or 331, and CIS 321.

### ENGINEERING COURSES

Students are also required to take ECS 101 and ECS 102.

### MAJOR SECTION

The major section consists of ECS 101 Introduction to Engineering and Computer Science, ECS 102 Introduction to Computing, the 33-credit computer science core (listed below), and an 18-credit option in computer science.

#### Computer Science Core

CIS 252 Introduction to Computer Science  
 CIS 275 Introduction to Discrete Mathematics  
 CIS 341 Computer Organization and Programming Systems  
 CIS 342 Introduction to Systems Programming  
 CIS 351 Data Structures  
 CIS 352 Programming Languages: Theory and Practice  
 CIS 453 Software Specification and Design  
 CIS 454 Software Implementation  
 CIS 473 Computability Theory  
 CIS 477 Introduction to Analysis of Algorithms  
 CIS 486 Design of Operating Systems

Students are required to meet academic standards as follows: no grade below C- will satisfy the requirements for 6 credits of writing, for the mathematics section, and for the major section, students are required to meet academic standards as follows: no grade below C- will satisfy the requirements for 6 credits of writing, for the mathematics section, for the computer science core, and the 18 credits of upper-division technical electives. The computer science core must be completed with a B- (2.667) average.

The B.S. degree in computer science requires at least 123 credits, including satisfactory completion of the general education and mathematics sections; computer science core requirements; and 18 credits, with grades of C- or better, in upper division technical electives chosen from the following listing. At least 9 credits of the upper division technical electives must be in computer science.

#### Upper Division Technical Electives

##### Arts and Sciences

PHI 378 Minds and Machines  
 PHI 551 Symbolic Logic  
 PHI 552 Modal Logic

Students may also choose any mathematics courses numbered above 400, unless specifically excluded (i.e., MAT 485). Note that MAT 521 cannot be

counted towards the CIS 321 requirement, but can be counted as an upper-division elective. Also any CIS courses numbered above 300, unless specifically excluded. The courses listed below are particularly recommended.

#### Computer and Information Science

CIS 390 Honors Seminar in Computer and Information Science  
CIS 400 Selected Topics  
CIS 425 Introduction to Computer Graphics  
CIS 428 Introduction to Cryptography  
CIS 467 Introduction to Artificial Intelligence  
CIS 471 Optimization Methods  
CIS 478 Introduction to Quantum Computing  
CIS 483 Introduction to Computer and Network Security  
CIS 531 Compiler Construction  
CIS/MAT 545 Finite Mathematics  
CIS 543 Control of Robots  
CIS 553 Software Systems Implementation  
CIS 554 Object-Oriented Programming of Abstract Structures in C++  
CIS 458 Data Networks: Basic Principles  
CIS 565 Introduction to Artificial Neural Networks  
CIS 567 Knowledge Representation and Reasoning

Students may also choose any computer engineering courses numbered above 300, unless specifically excluded. The courses listed below are particularly recommended.

#### Engineering

CSE 397 Computer Laboratory I  
CSE 398 Computer Laboratory II  
CSE 483 Windows Programming  
CSE 561 Digital Machine Design  
CSE 566 Information Display Devices and Techniques  
CSE 572 Switching Theory and Sequential Machine Design  
CSE 581 Introduction to Database Management Systems

#### Representative Program of Study

##### First Year, Fall Semester (16)

ECS 101 Introduction to Engineering and Computer Science (3)  
ECS 102 Introduction to Computing (3)  
MAT 295 Calculus I (4)  
WRT 105 Studio 1: Practices of Academic Writing (3)  
A/SS/H\* elective (3)

##### First Year, Spring Semester (15)

CIS 252 Introduction to Computer Science (4)  
MAT 296 Calculus II (4)  
PHI 251 Logic (3)  
PHY 211/221 General Physics/General Physics Laboratory (4)

##### Second Year, Fall Semester (13-14)

CIS 275 Introduction to Discrete Mathematics (3)  
A/SS/H elective (3)  
CIS 351 Data Structures (4)  
MAT 397 Calculus III (4) or MAT 331 First Course in Linear Algebra (3)

##### Second Year, Spring Semester (17)

CIS 321 Introduction to Probability and Statistics (4)  
CIS 352 Programming Languages: Theory and Practice (3)  
CIS 342 Introduction to Systems Programming (1)  
WRT 205 Studio 2; Critical Research and Writing (3)  
Free elective (3)  
CIS 341 Computer Organization and Programming Systems (3)

##### Third Year, Fall Semester (16)

CIS 453 Software Specification and Design (3)  
CIS 477 Introduction to Analysis of Algorithms (3)

CIS 486 Software Implementation (3)  
Presentation Skills Elective (3)  
Science elective (4)

Third Year, Spring Semester (16)

CIS 473 Computability Theory (3)  
CIS 454 Software Implementation (3)  
Upper-Division Elective (3)  
A/SS/H Elective (3)  
Science elective (4)

Fourth Year, Fall Semester (15)

Upper-division course (3)  
Upper-division course (3)  
Upper-division elective (3)  
ECS 392 Ethical Aspects of Engineering and Computer Science (3)  
A/SS/H elective (3)

Fourth Year, Spring Semester (15)

Upper-division course (3)  
Upper-division course (3)  
Free elective (3)  
Free elective (3)  
A/SS/H electives (3)

\*Students wishing to preserve the option of transferring to an engineering major at the end of the first semester should take CHE 106/107 in place of A/SS/H elective.

**INTRA-UNIVERSITY TRANSFER**

Students who wish to transfer into any program within the College of Engineering and Computer Science from another school or college within the University should have a strong record of achievement and demonstrated success in key technical courses. Specifically, it is critical for the applicant to have proven their ability to excel in college-level calculus (by completing at least one of MAT 295, 296, or 397 with a grade of B- or better) and science (by completing at least one set of PHY 211/221 or CHE 106/107 with a grade of B- or better). Students who wish to major in computer science must also complete CIS 252 with a grade of at least a B.

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## Computer Science Minor

Minor Coordinator - Jae Oh, 4-206I Center for Science and Technology, 315-443-4740, [jcoh@syr.edu](mailto:jcoh@syr.edu).

The minor in computer science requires the completion of at least 18 credits in CIS courses with an overall grade point average of at least 2.5, and with no individual course grade below C-. These 18 hours must include CIS 252, CIS 275, CIS 351, and at least one course chosen from CIS 352, CIS 473, and CIS 477. At least 12 credits must come from courses numbered 300 or greater. All courses must be intended for CIS majors.

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## BS/MS Computer Science

Combined Degree Program

Contact Jae C. Oh, Program Director, 4-206I Center for Science and Technology, 315-443-4740, Fax 315-443-2583; [jcoh@syr.edu](mailto:jcoh@syr.edu).

### B.S. AND M.S. IN COMPUTER SCIENCE

This combined degree program is offered for the student who wants to complete consecutively the bachelor's and master's degrees in computer science. The combined degree program is designed to be completed in five years, with the student taking two master's degree courses in the senior year. Up to 6 credit hours may be counted towards both the bachelor's and the master's degrees, so that the two degrees together require at least 147 credits. The student is normally certified for the bachelor's degree at the end of the fourth year and for the master's degree at the end of the fifth year.

Admission to the combined degree program, normally requested during the second semester of the junior year, is based on academic performance.

\*Students are accepted for graduate study after completion of the third year of study but are not fully matriculated as graduate students until bachelor's degree requirements have been met. The undergraduate degree is awarded before completion of the graduate degree. Graduate courses taken in the fourth year of study count toward fulfillment of both undergraduate and graduate degree requirements. The graduate courses are included in the undergraduate tuition and appear only on the undergraduate record, and grades calculate only toward the undergraduate GPA. A block of transfer credits labeled as "transferred from SU undergraduate record" appears on the graduate record, if needed, and applies credit hours toward the graduate degree.

## Computer Science/Business Administration (3-2 Program)

Contact - Josh LaFave, Director of Recruiting and Graduate Distance Education, Whitman School of Management Suite 315, 315-443-3497, [jjlafave@syr.edu](mailto:jjlafave@syr.edu)

Can Isik, Associate Dean, College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

**Program Description** - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

**Accreditation** - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

**Admission** - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

**Degree Requirements** - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 124 credits for the Computer Science degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

**Transfer Credit** - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

**Satisfactory Progress** - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Combined B.S. And M.S. In Computer Science

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### Combined Degree Program

Contact Jae C. Oh, Program Director, 4-206I Center for Science and Technology, 315-443- 4740, Fax 315-443-2583; [jcoh@syr.edu](mailto:jcoh@syr.edu).

Faculty Amit Agrawal, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Wenliang (Kevin) Du, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Albert Goldfain, Mustafa Cenk Gursoy, Carlos R.P. Hartmann, Robert Irwin, Can Isik, Philipp Kornreich, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Qinru Qiu, Laleh Rabieirad, James S. Royer, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Jian Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Hong Wang, Heng Yin, Edmund Yu

#### B.S. AND M.S. IN COMPUTER SCIENCE

This combined degree program is offered for the student who wants to complete consecutively the bachelor's and master's degrees in computer science. The combined degree program is designed to be completed in five years, with the student taking two master's degree courses in the senior year. Up to 6 credit hours may be counted towards both the bachelor's and the master's degrees, so that the two degrees together require at least 147 credits. The student is normally certified for the bachelor's degree at the end of the fourth year and for the master's degree at the end of the fifth year.

Admission to the combined degree program, normally requested during the second semester of the junior year, is based on academic performance.

\*Students are accepted for graduate study after completion of the third year of study but are not fully matriculated as graduate students until bachelor's degree requirements have been met. The undergraduate degree is awarded before completion of the graduate degree. Graduate courses taken in the fourth year of study count toward fulfillment of both undergraduate and graduate degree requirement. The graduate courses are included in the undergraduate tuition and appear only on the undergraduate record, and grades calculate only toward the undergraduate GPA. A block of transfer credits labeled as "transferred from SU undergraduate record" appears on the graduate record, if needed, and applies credit hours toward the graduate degree.

## Electrical Engineering

Program Director Prasanta K. Ghosh, 4-131 Center for Science and Technology, 315-443-4440, Fax: 315-443-2583; pkgghosh@syr.edu.

Faculty Amit Agrawal, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Wenliang (Kevin) Du, Ehat Ercanli, James W. Fawcett, Prasanta Ghosh, Albert Goldfain, Mustafa Cenk Gursoy, Carlos R.P. Hartmann, Robert Irwin, Can Isik, Philipp Kornreich, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Lisa Osadciw, Daniel J. Pease, Qinru Qiu, Laleh Rabieirad, James S. Royer, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Jian Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Hong Wang, Heng Yin, Edmund Yu

### BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

The mission of the electrical engineering program is to promote learning in electrical engineering through integrated activities in teaching, research, scholarship, creative accomplishments, and service.

The educational objective of the bachelor of science in electrical engineering (BSEE) program in the Department of EECS at Syracuse University is to prepare well-rounded graduates that are ready for work and ready for change.

- Well-rounded graduates of the BSEE program are known by their professional competence, innovative thinking, ability to work individually and in diverse teams, leadership abilities, communication skills, and integrity.
- Graduates of the BSEE program who are ready for work are engaged in applying the knowledge acquired in their major, combined with their problem solving abilities, to produce feasible solutions to problems, in a timely manner, which are deemed important in industry, government, or academia.
- Graduates of the BSEE program who are ready for change exhibit the intellectual flexibility necessary to solve new problems in innovative ways by integrating multiple viewpoints from several disciplines in search of the best possible solutions, or applying their knowledge to different professional disciplines.

Electrical engineering is based on scientific principles governing the motion of charged particles through conductors, semiconductors, or even a vacuum. These phenomena can be harnessed in a variety of applications such as in the treatment of disease, optical, satellite, and computer communications, power transmission, control of robots, radio and television broadcasting, and development of microelectronics for computers and analog circuits.

This program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Engineering design is taught in each of the four years of the electrical engineering program. Beginning with ECS 101 in the first year, students are required to formulate solutions to a variety of open-ended laboratory projects. As the students progress through their sophomore and junior years, the projects increase in complexity requiring additional creativity and knowledge. Finally, in the senior year the students are required to complete a major design project that builds upon their mastery of the fundamental concepts of mathematics, basic sciences, the humanities and social sciences, engineering topics, and communication skills.

In addition to successfully completing the requirements for the bachelor of science in electrical engineering, graduates from this program must also achieve the following student outcomes:

- an ability to apply knowledge of mathematics and science.
- an ability to design and conduct experiments, analyze and interpret data.
- an ability to design systems to meet specifications.
- an ability to function independently and on teams.
- an ability to identify, formulate, and solve engineering and scientific problems.
- an understanding of professional, ethical, and safety considerations.
- an ability to communicate effectively, both orally and in writing.
- an understanding of the role of science and engineering in society.
- a recognition of the necessity of lifelong learning.
- an understanding of contemporary issues through a broad liberal arts education.
- an ability to use the modern tools necessary for professional practice.
- an ability to think critically as evidenced by skills in interpretation, analysis, evaluation, and inference.

### Program Components

The electrical engineering program has four fundamental components: mathematics and sciences, engineering, social sciences and humanities, and general education. Within each component, a number of courses have been set aside as electives in order to allow students, with the guidance of their advisors, to customize their education according to personal and career objectives. A summary of required and elective credits within each component follows:

Mathematics and Science 30 required, 3 elective, 33 total credits;  
Engineering 52 required, 12 elective, 64 total credits;

Social Science and Humanities 3 required, 9 elective, 12 total credits;

General Education 12 required, 6 elective, 18 total credits;

Free 5 elective, 5 total credits;

Overall 84 required, 48 elective, 132 total credits.

### Tracks (Technical Electives)

Tracks are intended to provide a cohesive set of technical electives for electrical engineering students. A track usually consists of a group of four courses (12 credits). In the Department of Electrical Engineering and Computer Science, there are three tracks in electrical engineering.

#### Communications Track

ELE 351 System and Signal Analysis (3)

ELE 352 Digital Signal Processing (3)

and two of the following:

ELE 551 Communication Systems (3)

ELE 458 Data Networks: Basic Principles (3)

ELE 591 Special Topics in Electrical Engineering (3)

#### Electromagnetics Track

ELE324 Electromagnetics I (3)

\*ELE 325 Electromagnetics II (3)

and two of the following:

ELE 424 Fundamentals of Radio Frequencies and Microwaves (3)

ELE 425 Microwave Engineering (3)

ELE 524 Introduction to Applied Optics (3)

ELE 525 Electromagnetic Compatibility (3)

#### Power Track

ELE 324 Electromagnetics I (3)

ELE 314 Introduction to Power Engineering (3)

and two of the following:

ELE 416 Electromechanical Devices (3)

ELE 514 Electric Power Systems (3)

ELE400 Power Electronics (3)

ELE400 Sensors and Measurements (3)

ELE 591 Distributed Source Integration in Smart Grid (3)

\*Students who choose to complete a technical ECS minor may replace these courses (ELE 346, ELE 325) with technical electives.

### Elective Courses

In order to maximize the flexibility of the Electrical Engineering curriculum while maintaining its structure, electives have been divided into the following categories:

#### Technical Electives

Tracks of specialization (listed below) and minors are (typically) used to regulate technical electives. Students must take 36 required course credits, and 18 technical elective credits.

Among the technical electives, each student must choose at least two from ELE 312 (Control Systems), ELE 352 (Digital Signal Processing), and ELE 325 (Electromagnetics II).

Each student must satisfy the requirements of a Track by taking at least one of the sets of technical electives listed below:

1. Communications Track: ELE 352, and two from {ELE 458, 551, 591}
2. Electromagnetics Track: Two from {ELE 424, 425, 524, 525}
3. Power Track: Two from {ELE 400, 416, 514, 591}.

#### Mathematics and Sciences Elective

The 3-credit elective may be fulfilled by any mathematics course with a calculus prerequisite, any physics course with a calculus-based physics prerequisite, or any college-level course in other science departments. By taking an appropriate math course, EE students can use this elective to complete a minor in mathematics.

#### Social Sciences and Humanities Electives

This 9-credit requirement may be fulfilled by any combination of courses listed in the social sciences division or humanities division of the College of Arts and Sciences. A glossary of course designations with such contents can be found in the Humanities Division and the Social Sciences Division of the College of Arts and Sciences. Courses outside of this scope require prior approval from the academic advisors and Program Director.

### General Education Electives

This 6-credit requirement may be fulfilled by any combination of courses that do not have technical engineering, computer science, mathematics and natural science content. These courses, either by themselves or in combination with social sciences and humanities electives and free electives, present a very attractive opportunity to complete one of the non-technical minors offered in the University.

### Free Electives

This 5-credit requirement may be fulfilled by any combination of college-level courses, for example, to help fulfill the requirements of a technical or a non-technical minor.

### Program of Study

#### First Year, Fall Semester (17)

ECS 101 Introduction to ECS I (3)  
CHE 150 General Chemistry for Engineers (3)  
CHE 151 General Chemistry for Engineers Lab (1)  
MAT 295 Calculus I (4)  
WRT 105 Studio 1: Practices of Academic Writing (3)  
SSH elective (3)

#### First Year, Spring Semester (17)

ECS 102 Introduction to ECS II (3)  
MAT 296 Calculus II (4)  
PHY 211 Physics I (3)  
PHY 221 Physics Lab I (1)  
SSH elective (3)  
Non-technical elective (3)

#### Second Year, Fall Semester (16)

ECS 204 Mathematical Programming for Engineers (1)  
PHY 212 Physics II (3)  
PHY 222 Physics II Lab (1)  
ELE 231 EE Fundamentals I (3)  
ELE 291 EE Lab I (1)  
MAT 397 Calculus III (4)  
SSH elective (3)

#### Second Year, Spring Semester (16)

MAT 485 Differential Equations and Matrix Algebra (3)  
WRT 205 Studio 2: Critical Research and Writing (3)  
ELE 232 EE Fundamentals II (3)  
ELE 292 EE Lab II (1)  
\*ELE 346 Semiconductor Devices (3)  
CSE 261 Digital Logic Design (3)

#### Third Year, Fall Semester (18)

ELE 331 Digital Circuits (3)  
ELE 391 Digital Circuits Lab (3)  
ELE 351 System and Signal Analysis (3)  
ELE 324 Electromagnetics I (3)  
†MAT 521 Introduction to Probability and Statistics (3)  
WRT 307 Advanced Writing Studio: Professional Writing (3)

#### Third Year, Spring Semester (17)

ELE 333 Analog Circuits (3)  
\*ELE 325 Electromagnetics II (3)  
ELE 392 Analog Circuits Lab (3)  
Free elective (2)  
Select two of the following three courses:  
ELE 352 Digital Signal Processing (3)  
\*ELE 312 Control Systems (3)  
ELE 424 Fundamentals of Radio Frequencies and Microwaves (3)

#### Fourth Year, Fall Semester (14)

WRT 401 Adv Wrkshp Tech Comm Method (2)  
WRT 402 Adv Wrkshp Tech Comm Prototyping & Constr. (1)  
ELE 491 Senior Design Project (2)

Technical elective (6)  
ECS 392 Ethical Aspects of ECS (3)  
  
Fourth Year, Spring Semester (17)  
ELE 492 Senior Design Project II (2)  
Technical elective (6)  
Math/Science elective (3)  
Non-technical elective (3)  
Free elective (3)

Total 132

\*These courses may be replaced with technical electives by students who choose to complete an ECS technical minor.

†CIS 321 Introduction to Probability and Statistics (4 credits) can be substituted if a student does not want a mathematics minor.

#### MINORS

The electrical engineering curriculum is flexible enough to allow a student to complete up to three minors. Today's engineers work in an environment where they are expected to know not only their specialty areas, but also a collection of other subject areas—from computers to finance. The EE curriculum responds to this need by providing students with a strong basis in the fundamentals of electrical engineering, coupled with an opportunity to broaden the scope of their education. An electrical engineering student may complete one or all of the following types of minors within the normal limits of the curriculum.

##### Engineering and computer science minor

A student who wishes to complete a technical minor offered by the college has up to 26 credits of electives distributed from the second year through the fourth year. Twelve of those credits are labeled as technical electives in the following curriculum. Nine of them are credits from the three courses marked by an asterisk, ELE 346, 325, and 312, which are not required for students who choose to complete an ECS technical minor. The remaining 5 credits are from free electives.

##### Non-technical minor

A student who would like to complete a non-technical minor has 9 credits of social sciences and humanities electives and 5 credits of free electives in addition to 9 credits of general education electives, which can be used toward any one of more than 70 minors offered at Syracuse University.

##### Minor in mathematics

Electrical engineering curriculum requires students to take 18 credits of courses from the mathematics department. With the 3-credit mathematics and sciences elective course also taken appropriately from that department, a minor in mathematics can be earned.

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## Electrical Engineering Minor

Minor Coordinator - Prasanta K. Ghosh, 4-131 Center for Science and Technology, 351-443-4440, [pkghosh@syr.edu](mailto:pkghosh@syr.edu).

### Academic Requirements

The minor in electrical engineering (EE) (20 credits) is available to any Syracuse University student who has the appropriate prerequisites such as calculus and calculus-based physics. Students must complete 8 credits of required sophomore courses shown below and 12 credits of junior- or senior-level elective courses offered by the electrical engineering program. Students may choose the elective courses to give them a breadth of coverage or complete a track\* in a specific concentration area as described in the catalog.

ELE 231 EE Fundamentals I (3)  
ELE 291 EE Lab I (1)  
ELE 232 EE Fundamentals II (3)  
ELE 292 EE Lab II (1)  
ELE EE Junior or senior courses (12)  
Total 20

\*Tracks are intended to provide a cohesive set of technical electives for EE students. A track consists of a sequence of two senior-level elective courses and their appropriate prerequisites. The current examples of tracks in EE are all 12 credits. More information can be found in the EE curriculum description.

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## Electrical Engineering

Bachelor of Science/Master of Science in Electrical Engineering

Contact:

Prasanta K. Ghosh, Program Director, 4-131 Center for Science and Technology, 315-443-4440,  
Fax 315-443-2583; [pkghosh@syr.edu](mailto:pkghosh@syr.edu)

Faculty Amit Agrawal, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Wenliang (Kevin) Du, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Albert Goldfain, Mustafa Cenk Gursoy, Carlos R.P. Hartmann, Robert Irwin, Can Isik, Philipp Kornreich, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Qinru Qiu, Laleh Rabieirad, James S. Royer, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Jian Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Hong Wang, Heng Yin, Edmund Yu

#### Description:

This combined degree is for students who want to complete consecutively the Bachelor of Science (BSEE) and Master of Science (MSEE) degree in electrical engineering. The combined degree is designed to be completed in 5 years. Two courses (6 credits) at the 500- level or higher may be counted towards both the Bachelor's and the Master's degrees. The student is expected to be certified for the Bachelor's degree at the end of the fourth year and for the Master's degree at the end of the fifth year. Students need to initiate the application process to the combined degree program during the first semester of their junior year of the BSEE program at Syracuse University. Admission decisions will be made on the academic performance of applicants. Students need to use the established process for regular MS applications.

Total Credits: 156

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## Electrical Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, degoodro@syr.edu

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, cisik@syr.edu

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 132 credits for the Electrical Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Energy Systems Minor

Minor Coordinator - Dr. Ezzat Khalifa, 263 Link Hall, 315-443-2341, hekhalif@syr.edu.

This minor option will provide students enrolled within the College of Engineering and Computer Science with a grouping of courses/electives that will provide academic depth in the field of energy related systems in 4 different but related tracks.

Admission to the energy systems minor is by permission of an academic advisor and requires students to be enrolled in a B.S. program in Engineering within the College of Engineering and Computer Science.

Students with sufficient technical background from other Syracuse University Academic Units may be considered for admission to the Minor in Energy Systems and such decisions will be made by the E&CS Energy Systems Committee.

#### Course Requirements

The following courses must be taken by all students within the minor regardless of the specific track:

ECN 203 Economic Ideas and Issues (3)  
MAE 251 or CEN 252 Thermodynamics (3)  
MAE/CIE 548 Engineering Economics and Technology Valuation (3)  
MAE/CIE 551 Energy Conversion (3)

In addition, 3 track-specific courses must be taken from a list of required and elective courses for each of the 4 individual tracks. These 4 track specific lists are available from an academic advisor.

1. Thermo-Mechanical Energy Systems Track

Select any 2 of MAE 553, MAE 554, MAE 585, MAE 457, plus 1 Elective from any of the 4 Energy Systems Tracks:

- Elective MAE 553 HVAC Systems Design and Analysis
- Elective MAE 554 Principles of Refrigeration
- Elective MAE 585 Principles of Turbomachinery
- Elective MAE 457: Automotive Engineering
- Others to be announced

2. Nuclear Energy Track

Required: NUC 301, Introduction to Nuclear Engineering and Reactor Safety

Select either NUC 510 or NUC 520, plus 1 of the remaining NUC Electives, or 1 Elective from any other Energy Systems Track:

- Elective NUC 510. Nuclear Power Plant Design, Operation and Safety
- Elective NUC 520. Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation
- Elective NUC/ELE 530. Electric Power Generation and Distribution
- Elective NUC 540. Experiential Studies
- Others to be announced

3. Renewable Energy Track

Select any 2 of MAE 587, MAE 588, PHY 305, CEN 551, plus 1 Elective from any of the 4 Energy Systems Tracks:

- Elective MAE 587 Design of Solar Energy Systems
- Elective MAE 588 Principles of Wind Turbines
- Elective PHY 305 Solar Energy and Architectures
- Elective CEN 551 Biochemical Engineering (Professor Ren will cover some biofuels)
- Others to be announced (examples may include; relevant ESF courses, CIE may offer a class in Environmental Aspects of Energy Production)

4. Electric Power Track

Select any 3 electives from the following list:

- Elective ELE 324 Electromagnetics I
- Elective ELE 416 Electromechanical Devices
- Elective ELE 514 Electric Power Systems
- Elective NUC/ELE 530 Electric Power Generation and Distribution
- Others to be announced

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## Engineering & Computer Science Management

Minor Coordinator Engineering - Frederick Carranti, 247 Link Hall, 315-443-4346, carranti@syr.edu.

Minor Coordinator Management - Rachel DuBois, 415 Whitman School of Management, 315-443-9609, rdubois@syr.edu.

This minor is designed to provide EC&S students with a relevant non-technical minor. It is open to all SU students with approval of their home college. The requirements are

ECS 391 Legal aspects of ECS

ECS 392 Ethical Aspects of ECS

Two upper-level management courses selected from the following:

EEE 370 Introduction to Entrepreneurship

EEE 382 Entrepreneurial Marketing

EEE 451 Finance for Emerging Enterprises

FIN 301 Finance for Non-Business Students  
LPP 458 Environmental Law and Public Policy  
SHR 355 Introduction to Human Resource Management

Two courses selected from the following:

ACC 201 Introduction to Accounting for Non-Management Students  
ECN 203 Economic Ideas and Issues  
MAR 301 Marketing for Non-Management Students  
SHR 247 Strategy and Leadership

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## Environmental Engineering

Department Chair: Dr. Ossama "Sam" Salem, 151 Link Hall, omsalem@syr.edu, 315-443-2311

Program Director: Dr. Cliff I. Davidson, 151 Link Hall, davidson@syr.edu, 315-443-2311

Environmental Engineering Faculty Riyad S. Aboutaha, Shobha K. Bhatia, Douglas F. Call, David G. Chandler, Ruth Chen, Andria Costello Staniec, Joan V. Dannenhoffer, Cliff I Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Lashun K. Thomas, Eric Mun Lui, Sinead Mac Namara, Dawit Negussey, Ossama "Sam" Salem, Laura J Steinberg

The mission of the Civil and Environmental Engineering Department is to promote learning and the creation, dissemination, and application of knowledge in civil and environmental engineering through integration of teaching, scholarship, and service.

The goal of the Civil and Environmental Engineering Department is to prepare students for engineering practice, advanced study, and lifelong learning in civil and environmental engineering. Graduates are expected to be proficient in the fundamentals of sustainable engineering analysis and design and understand the importance and methods of effective communication. Students are encouraged to use the extensive international network and educational resources of Syracuse University and the Syracuse community to broaden and enhance the quality of their university education.

The educational objectives of the environmental engineering program are to produce graduates who:

- can apply technical knowledge and problem-solving skills to advance their careers and serve the community;
- are prepared for engineering practice and advanced studies in environmental engineering;
- will engage in life-long learning to keep themselves abreast of new developments in their fields of practice or study; and
- are capable of effective written and oral communications.

Our student outcomes are in line with those identified by the Engineering Accreditation Commission of ABET. At the time of their graduation, our students should have acquired:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

### Environmental Engineering Description

The B.S. degree program in environmental engineering emphasizes the application of engineering and science principles to the preservation and management of the environment. It provides a strong background in the basic and engineering sciences and a variety of courses in several environmental areas, including water and wastewater treatment, solid and hazardous waste management, air pollution control, transport and fate of pollutants, and environmental chemistry and microbiology. The program allows students to pursue a series of elective courses suited to individual interests and goals, as well as to obtain minors in a variety of subject areas. Double-majors with geography, economics, political science and policy studies are possible without any additional coursework.

This program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Adjustments in the program can be made to accommodate transfer students from accredited two- and four-year institutions so they may develop their programs of study as soon after admission as possible.

Environmental Engineering Curriculum  
First Year, Fall Semester  
MAT 295 Calculus I (4)  
CHE 106 General Chemistry I (3)

CHE 107 General Chemistry I Lab (1)  
ECS 101 Introduction to Engineering and Computer Science (3)  
WRT 105 Studio I: Academic Writing (3)  
SS/Hum Elective (3)  
TOTAL 17

First Year, Spring Semester  
MAT 296 Calculus II (4)  
CHE 116 General Chemistry II (3)  
CHE 117 General Chemistry II Lab (1)  
PHY 211 General Physics I (3)  
PHY 221 General Physics Lab I (1)  
SS/Hum Elective (3)  
TOTAL 15

Second Year, Fall Semester  
MAT 397 Calculus III (4)  
ECS 221 Statics (3)  
CIE 272 CIE Measurements (3)  
SS/Hum Elective (3)  
SS/Hum Elective (3)  
TOTAL 16

Second Year, Spring Semester  
MAT 485 Diff Eqn & Mat Alg for Engr (3)  
ECS 325 Mechanics of Solids (4)  
EAR 203 Earth System Science (4)  
CIE 274 Sustainability Civil and Environmental Systems (3)  
WRT 205 Studio II: Critical Research (3)  
TOTAL 17

Third Year, Fall Semester  
CIE 337 Intro to Geotechnical Engineering (4)  
CIE 341 Intro to Environmental Engineering (3)  
CIE 327 Prin of Fluid Mechanics (4)  
SS/Hum Elective (3)  
SS/Hum Elective (3)  
TOTAL 17

Third Year, Spring Semester  
CIE 352 Water Resources Engineering (4)  
CIE 472 Treatment Proc in Env Eng (3)  
GEO 383 Geographic Info Systems (4)  
Professional Elective (3)  
Select one of the following five courses:  
CIE 326 Engineering Materials (3)  
ECS 222 Dynamics (3)  
ELE 231 Elec Eng Fund I (3)  
MAE 251 Thermodynamics (4)  
CHE 346 Physical Chemistry (3)  
TOTAL 17/18

Fourth Year, Fall Semester  
CIE 471 Env Chem & Analysis (3)  
CIE 442 Treatment Proc in Env Eng (4)  
GNE 461 Air Pollution Engineering (3)  
Professional Elective (3)  
Free Elective (3)  
TOTAL 16

Fourth Year, Spring Semester  
CIE 475 Civ/Env Engineering Design (4)  
Professional Elective (3)  
Technical Elective (3)  
Technical Elective (3)  
TOTAL 13

## Environmental Engineering/Business Administration (3-2 Program)

Contact: Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, College of Engineering and Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description: The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation: The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission: Students in the engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements: Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

- Students will complete 129 credits for the environmental engineering degree and an additional 54 credits for the MBA degree.
- Year 1 & 2: Enrollment in required undergraduate coursework
- Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework
- Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework
- Year 5: Completion of BS and MBA coursework

Transfer Credit: Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress: Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Mechanical Engineering

Department Chair: Dr. H. Ezzat Khalifa, 263 Link Hall, [hekhalif@syr.edu](mailto:hekhalif@syr.edu), 315-443-1286

Program Director: Dr. Utpal Roy, 263 Link Hall, [uroy@syr.edu](mailto:uroy@syr.edu), 315-443-2592

Faculty Jeongmin Ahn, Benjamin Akih-Kumgeh, Michelle Blum, Edward A. Bogucz Jr., Frederick J. Carranti, Thong Dang, John F. Dannenhoffer, Barry D. Davidson, Mark N. Glauser, Melissa Green, H. Ezzat Khalifa, Alan J. Levy, Jacques Lewalle, Shalabh Maroo, Young Bai Moon, Vadrevu R. Murthy, Utpal Roy, Jianshun S. Zhang

The mission of the mechanical engineering program at Syracuse University is to educate and promote learning and discovery in mechanical engineering and to prepare students for careers of technical excellence, professional growth, and leadership in a complex and competitive technological environment.

The educational objectives of the mechanical engineering curriculum are to enable graduates of the program to do the following:

- apply the physical, mathematical, and engineering sciences to professional practice or to advanced study in mechanical engineering or related fields;
- be cognizant of societal context and ethical responsibility in professional practice;
- function productively on teams and communicate ideas to both technical and non-technical audiences; and
- be agile, innovative, and adaptable in an increasingly diverse and global environment

In order to meet the demands of new and existing high-tech industries, we prepare our students by providing opportunities to gain marketable and relevant skills that can lead to success in a wide range of careers. The distinctive signature of undergraduate mechanical engineering at Syracuse University is its strong technical core coupled with the ability to fit either a technical or a non-technical minor into the curricula. Students explore the breadth of Syracuse University by complementing their mechanical engineering degree with a minor in business, public policy, fine arts, public communications, and many more.

Mechanical engineering is a broad discipline concerned with the design and analysis of systems that produce or modify motion, force, and energy into forms

useful to people. Mechanical engineers are employed throughout the complete spectrum of industries, including automotive, industrial machinery, publishing and printing, electrical and thermal power, chemical processing, textile, petroleum, computer and electronic, pharmaceutical, apparel, consumer products, soap and cosmetics, paper and wood products, rubber, and glass.

Driven by the breadth of career paths open to mechanical engineering graduates, the B.S. program in mechanical engineering (MEE) is structured to provide a firm educational foundation in the physical, mathematical, and engineering principles and design practices relevant to mechanical and thermal systems. The program is designed to prepare graduates for either immediate employment or for continuing studies at the graduate level.

Requirements for the B.S. MEE program appear below. For the first five semesters the recommended sequence of courses for the B.S. MEE program is very similar to the recommended program for the degree B.S. in aerospace engineering (AEE), which demonstrates the complementary nature of the two disciplines. Courses carrying the prefix MAE indicate that class material and assignments are drawn from both aerospace and mechanical engineering applications.

Beginning in the sixth semester students who follow the B.S. MEE program begin to take courses addressing engineering topics unique to mechanical engineering, including machine design and manufacturing and heat transfer. The last three semesters of the MEE program also include courses of more broad applications, including dynamics of mechanical systems and linear control systems.

Experience with open-ended design problems is obtained in a sequence of courses that span the entire curriculum. The sequence begins with introductory design experiences in the first-year courses ECS 101 and MAE 184.

Upper-division courses involving design include courses in machine design and manufacturing, and senior capstone design. The two-semester capstone design experience (MEE 471,472) requires students to integrate knowledge from all areas in the design of a complete product or system.

The B.S. MEE curriculum allows for programs of study that can be tailored by students to take advantage of the diversity of strengths across both ECS and all of Syracuse University. We provide engineering students with opportunities to complete minors in areas that can complement technical knowledge—such as international affairs, business, and public policy—thus enhancing the value and attractiveness of a Syracuse University engineering education. Students can also elect to pursue a University minor or take a distribution of electives, which will include liberal arts classes, free electives, and additional depth in mechanical engineering. There are a total of 27 elective credits (9 electives) in the B.S. MEE program; one of these electives (3 credits) must be in Social Sciences/Humanities (SS/H); two (6 credits) must be MAE technical electives, one of which must be either MAE 430, MAE 571, or MAE 573. The remaining 18 credits can be customized for each student in either of two ways:

- (1) A University Minor, typically 18 credits coordinated by the offering department; The minor must have fewer than 12 credits of overlap with required MEE courses.
- (2) A Distribution of Electives, including:
  - a. at least 6 credits of SS/H
  - b. at least 9 credits of technical electives
  - c. one 3-credit free elective.

MEE students seeking to complete a Mathematics Minor can take a mathematics course as a free elective but must still complete one of the 2 options listed above.

MEE students seeking to complete the Energy Systems Minor (15 credits) must take an additional 3-credit SS/H course.

Technical Electives are courses at the 300 level or higher taken within the Mechanical and Aerospace Engineering (MAE) Department. Selected courses from other ECS departments, mathematics, or natural sciences may be accepted as technical electives, but no more than 3 credit hours of technical electives can be taken outside the MAE department.

Students are strongly encouraged to develop a plan for selections of their electives during their first year. The planning process should include discussions with the student's academic advisor, other faculty members, and peer advisers. The MAE department offers most undergraduate technical elective courses on a two-year cycle. As a result, it may be necessary for a student to modify the sequence of courses recommended below to accommodate a technical elective course of personal interest.

In addition to successfully completing the requirements for the mechanical engineering program, graduates from this program must also achieve the following student outcomes:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs including both thermal and mechanical systems
- an ability to function on multidisciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for

- engineering practice
- a familiarity with statistics and linear algebra and the ability to apply advanced mathematics through multivariate calculus and differential equations

This program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

## MECHANICAL ENGINEERING REQUIREMENTS

### First Year, Fall Semester

ECS 101 Introduction to Engineering and Computer Science (3)  
MAT 295 Calculus I (4)  
CHE 150 General Chemistry for Engineers (3)  
CHE 151 General Chemistry for Engineers Lab (1)  
WRT 105 Studio 1: Practices of Academic Writing (3)  
ECN 203 Economic Ideas/Issues (3)  
Total 17

### First Year, Spring Semester

MAE 184 Engineering Graphics and Computer-Aided Design (3)  
ECS 104 Engineering Computing Tools (3)  
MAT 296 Calculus II (4)  
PHY 211 General Physics I (3)  
PHY 221 General Physics Lab I (1)  
Elective #1 (SS/H) (3)  
Total 17

### Second Year, Fall Semester

ELE 231 Electrical Engineering Fundamentals (3)  
ELE 291 Electrical Engineering Laboratory I (1)  
MAT 397 Calculus III (4)  
PHY 212 General Physics II (3)  
PHY 222 General Physics Lab II (1)  
ECS 221 Statics (3)  
Elective #2 (3)  
Total 18

### Second Year, Spring Semester

MAE 251 Thermodynamics (4)  
ECS 222 Dynamics (3)  
ECS 325 Mechanics of Solids (4)  
MAT 485 Diff Eqn & Mat Alg for Engr (3)  
Elective #3 (Technical) (3)  
Total 17

### Third Year, Fall Semester

ECS 326 Engineering Materials, Properties, and Processing (3)  
MAE 341 Fluid Mechanics (4)  
MAE 312 Engineering Analysis (3)  
MAE 315 Mechanical and Aerospace Engineering Lab I (3)  
Elective #4 (3)  
Total 16

### Third Year, Spring Semester

MAE 355 Fundamentals of Heat Transfer (4)  
MEE 332 Introduction to Machine Design (3)  
MAE 321 Dynamics of Mechanical Systems (3)  
ELE 312 Linear Control Systems (3)  
Elective #5 (3)  
Total 16

### Fourth Year, Fall Semester

MEE 471 Synthesis of Mechanical Systems I (3)  
MEE 416 Mechanical Engineering Lab (3)  
MEE 431 Manufacturing Processes (3)  
Elective #6 (3)  
Elective #7 (3)

Total 15

Fourth Year, Spring Semester

MEE 472 Synthesis of Mechanical Systems II (3)

WRT 205 Studio II (3)

Elective #8 (3)

Elective #9 (3)

Total 12

Other:

GPA: 2.0 (All students must earn a minimum cumulative GPA of 2.00 and at least 2.00 GPA in all math, science and engineering courses in order to be awarded an SU degree.)

Senior Thesis: N/A

Study Abroad: N/A

Note: Do not repeat prerequisites for admission into the major.

Total 128

Recommended Technical Electives

AEE 342 Aerodynamics

AEE 343 Compressible Flow

AEE 427 Aircraft Performance & Dynamics

AEE 446 Propulsion

AEE 577 Introduction to Space Flight

ECS 511 Sustainable Manufacturing

ECS 526 Statistics for Engineers

MAE 430 Practical Design Optimization

MAE 457 Automotive Engineering

MAE 486 Fuel Cell Science & Technology

MAE 500 Introduction to Acoustics

MAE 536 Composite Materials

MAE 545 Applications of Fluid Mechanics

MAE 548 Engineering Economics/Tech Valuation

MAE 551 Energy Conversion

MAE 553 HVAC Sys Anlysis & Design

MAE 554 Principles of Refrigeration

MAE 571 Application of Computational Fluid Dynamics

MAE 573 Application of Finite Element Analysis

MAE 585 Principles of Turbomachines

MAE 587 Design of Solar Energy System

MAE 588 Principles of Wind Turbines

MEE 571 Computer-Aided Design

MFE 326 Probability & Statistical Methods for Engineers

NUC 301 Intro. to Nuclear Engineering & Reactor Safety

NUC 510 Nuclear Reactor Design, Operation & Safety

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## Mechanical Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 128 credits for the Mechanical Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Systems And Information Science

Program Directors:

Robert J. Irwin, 4-206L-A Center for Science and Technology, 315-443- 4400, rjirwin@syr.edu

David Dischiave, 225 Hinds Hall, 315-443-4681, ddischia@syr.edu

Faculty:

Amit Agrawal, Ercument Arvas, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jason Dedrick, David Dischiave, Susan Dischiave, Wenliang (Kevin) Du, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Albert Goldfain, Mustafa Cenk Gursoy, Robert Heckman, Carlos R.P. Hartmann, Robert Irwin, Can Isik, Philipp Kornreich, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Deb Nosky, Jae C. Oh, Susan Older, Qinru Qiu, Laich Rabieirad, James S. Royer, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Jian Tang, William C. Tetley, Arthur Thomas, Prnmod K. Varshney, Senem Velipasalar, Hong, Min Xu, Heng Yin, Edmund Yu

What is Systems and Information Science?

In essence, students in the SIS program learn what they can do with computers and how best to do it. As the name implies, the focus is on information and how it can be stored, manipulated and retrieved. Implementation of large-scale software systems and working with a group of people in achieving such goals are emphasized in the SIS program.

SIS at Syracuse University

Systems and Information Science (SIS) integrates software and systems knowledge with expertise in business enterprise environment. SIS majors gain hands-on experience in design-oriented laboratories and learn about the social, business and organizational aspects of digital information systems.

Curriculum:

The SIS program requires a total of 120 credits, as follows:

- 32 credits SIS Core
- 24 credits SIS Sequences
- 13 credits Mathematical Foundations
- 9 credits Communication Skills
- 39 credits Arts & Sciences
- 3 credits Free Electives

In the descriptions that follow, all courses are three credits unless otherwise indicated.

### I. SIS Core (32 Credits)

SIS 100 Freshmen Forum

Information Management Core (9 credits)

IST 335 Introduction to Information-Based Organizations

IST 352 Information Analysis of Organizational Systems

IST 445 Managing Information Systems Projects

Computing Core (20 credits)

ECS 102 Introduction to Computing

CIS 252 Introduction to Computer Science (4 cr)

CIS 386 / CSE 386 Principles of Computer System Design

CIS 351 Data Structures (4 cr)

## II. SIS Sequences (24 Credits)

All SIS students must complete both a Short Technical Sequence (6 credits) and a Focus Area (18 credits).

The Technical Sequence requires a two-course sequence in one of several applied-technology areas: Database Management, Networking, Security Management, Systems, and Web Design and Management.

The Focus Area requires 18 credits in a specific domain, which represents a potential area for the application of a student's informing management and computing skills.

Students may not count the same course towards both their Technical Sequence and their Focus Area.

For details of the Technical Sequence and the Focus Areas, please consult the SIS Program Directors.

## III. Mathematical Foundations (13 credits)

MAT 194 Pre-Calculus (4 cr)

PHI 251 Logic

CIS 275 Introduction to Discrete Mathematics

CIS 223 Statistical Reasoning and Practice

## IV. Communication Skills (9 credits)

The Communication Skills requirement provides both writing and presentation experience.

WRT 105 Studio 1: Practices of Academic Writing

WRT 205 Studio 2: Critical Research and Writing

and one of the following:

CRS 325 Presentational Speaking

IST 444 Information Reporting and Presentation

## V. Arts & Sciences (39 credits)

Students must take 39 credits of courses from the College of Arts & Sciences and/or the College of Visual and Performing Arts. Specifically, these credits must be distributed as follows:

6 credits Humanities

6 credits Social Sciences

6 credits Natural Sciences & Mathematics

21 credits of any courses from the above A&S divisions or VPA

Notes:

1. NYS Department of Education requires half of the credits for a B.S. degree to be in the liberal arts and sciences. These 39 credits—combined with the Communication Skills and Mathematical Foundations—exceed the necessary 60 credits.

2. A student's Focus Area (e.g., a minor in history) may contain courses that satisfy the NYS requirement for liberal-arts content. In such a case, the remaining credits become free electives.

## VI. Free Electives (3 credits)

A student has 3 credits of free electives. Any course in the University can be used to satisfy this requirement.

### Sample Four-Year Course Flow:

The following shows a fairly typical SIS undergraduate program for a student who arrives with no transfer credits. All courses are 3 credits unless otherwise indicated.

	Fall	Spring
First Year	Freshman Forum	CIS 252 (4)
	ECS 102	PHI 251
	MAT 194 (4)	A&S Elective
	WRT 105	A&S Elective
	A&S Elective	A&S elective

	16 credits	16 credits
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Second Year	CIS 275	CIS 223
	CIS 351 (4)	WRT 205
	IST 335	IST 352
	A&S elective	Tech Spec course
	free elective	A&S elective
	16 credits	15 credits

Third Year	CIS 386	IST 444/CRS 325
	IST 445	Focus Area course
	Tech Spec course	Focus Area course
	Focus Area course	A&S elective
	A&S elective	A&S elective
	15 credits	15 credits

Fourth Year	CIS 453	CIS 454
	Focus Area course	Focus Area course
	Focus Area course	A&S elective
	A&S elective	A&S elective
	A&S elective	
	15 credits	12 credits

# Courses

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## Aerospace Engineering

AEE 270 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports, or an examination. Limited to those in good academic standing. R

AEE 290 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

AEE 342 Aerodynamics 4 Y  
Vorticity, circulation, potential flow and superposition of flows. Lift, drag, moments of two- and three-dimensional wings. Thin airfoil theories. Panel methods. Lifting-line theory. Flow separation and stall. Viscous drag reduction.  
PREREQ: MAE 341.

AEE 343 Compressible Flow 3  
Isentropic flow, normal and oblique shock waves, expansion fans. Compressible flow in converging and diverging nozzles. Course includes lab component with written report.  
PREREQ: MAE 251 AND 341.

AEE 427 Aircraft Performance and Dynamics 4 Y  
Wing aerodynamic, thrust and drag. Performance analysis of aircraft: take-off, landing, climbing, gliding, turns, range and load factors. Control surfaces. Longitudinal and lateral static stability. Dynamic stability. Introduction to autopilot.  
PREREQ: MAE 341.

AEE 442 High Speed Aerodynamics 3 IR  
Approximate theories of airfoils and wings, including linearized approximations, singularity distribution and vortex lattice method; effect of sweep; delta wings; method of characteristics, finite difference schemes, and time-dependent approaches.  
PREREQ: MAE 342 AND 343.

AEE 446 Propulsion 3 Y  
Fluid dynamics and thermodynamics of airbreathing engines, including gas turbine, ramjet and scramjet. Engine component analysis, including inlets, combustors, nozzles, and turbomachines. Introduction to rocket propulsion.  
PREREQ: AEE 343.

AEE 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

AEE 471 Design/Analysis Aerosp Structr 4 Y  
Structural configuration of modern aircraft and spacecraft. Vehicle design requirements. Symmetric and unsymmetric beams. Single and multicell thin-walled tubes. Skin-stringer construction. Shear flow. Shear lag. Ring, frame, and fuselage analysis. Finite element analysis. Design projects.  
PREREQ: ECS 325.

AEE 472 Synth of Aerosp Systems 4 Y  
Design of a subsonic, supersonic, or VTOL aircraft; a missile system; or a spacecraft to meet specified performance and cost criteria. Oral and written preliminary and final reports.  
PREREQ: AEE 427.

AEE 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

AEE 491 Hypersonics Resch Prjct I 1-3 S  
In depth exploration of a problem in the field of hypersonics under the supervision of a faculty member. Projects may be experimental or computational research on hypersonic phenomena, or a conceptual study of hypersonic vehicles.

AEE 492 Hyprsonics Resch Prjct II 1-3 S  
Advanced research on a problem in the field of hypersonics under the supervision of a faculty member. Projects may be experimental or computational research on hypersonics phenomena, or a conceptual study of hypersonic vehicles.

AEE 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

AEE 527 Helicopter Dynamics 3 SI  
Introduction to the helicopter; hover- and vertical-flight analysis; autorotation and vertical descent; blade motion and rotor control; aerodynamics of forward flight.  
PREREQ: AEE 342 AND 427.

AEE 542 Hypsonic/Hgh Tmp Gas Dynmcs 3 SI  
Inviscid and viscous hypersonic fluid dynamics with and without high temperature effects. Approximate and exact methods for analyzing hypersonic flows. Elements of statistical thermodynamics, kinetic theory, and nonequilibrium gas dynamics. Experimental methods.  
PREREQ: MAE 251 AND AEE 343.

AEE 577 Introduction to Space Flight 3 Y  
Two-body orbital mechanics, orbits and trajectories, interplanetary transfers, vehicle and booster performance.  
PREREQ: ECS 222.

## Bioengineering

BEN 212 Experimental Methods in Chemical Engineering and Bioengineering 3 Y  
Crosslisted with: CEN 212  
Statistical analysis and presentation of experimental data. Parameter estimation. Design of experiments. Hardware and software for computer interfacing. Collection, analysis, and reporting of laboratory data.  
PREREQ: MAT 296 AND ECS 104..

BEN 231 Mass and Energy Balances 3 Y  
Crosslisted with: CEN 231  
Material balances for single units and multistage processes. Recycle and bypass streams. Gas laws. Energy balances including latent and sensible heat effects, heats of reaction. Applications to biomedical processes.

BEN 270 Experience Credit 1-6  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

BEN 280 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

**BEN 301 Biological Principles for Engineers 4 Y**

Introduction to cell types and structure, nucleic acids, proteins and enzyme kinetics. Gene expression including transcription, translation and post-translational modification. Introduction to genomics, proteomics and bioinformatics. Genetic engineering and tissue engineering. Applications to biotechnology.  
PREREQ: CHE 275 AND MAT 397 AND ECS 104.

**BEN 333 Fluid Transport 3 Y**

Crosslisted with: CEN 333  
Fluid statics. Shear stress and viscosity. Energy and momentum balances for flow systems. Dimensional analysis. Friction and drag coefficients. Turbulent flow of compressible and incompressible fluids. Non-Newtonian fluids.  
PREREQ: MAT 397 AND (PHY 212 OR 216).

**BEN 341 Fundamentals of Heat and Mass Transfer 4 Y**

Crosslisted with: CEN 341  
Principles of heat and mass transfer. Conduction, convection, and radiation. Thermal properties of materials. Solutions of steady state and transient heat and mass transfer problems. Diffusion with chemical reaction. Convective mass transfer.  
PREREQ: CEN 333 OR BEN 333.

**BEN 364 Quantitative Physiology 4 Y**

Double Numbered with: BEN 664  
Introduction to mammalian physiology from an engineering perspective. Each of the major systems of the body will be addressed, with an emphasis on electrical, mechanical, and thermodynamic principles Lecture and laboratory. Additional work required of graduate students.  
PREREQ: BEN 301.

**BEN 400 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**BEN 433 Drug Delivery 3 Y**

Crosslisted with: CEN 433; Double Numbered with: BEN 633  
Integration of biology, chemistry, and engineering to understand how pharmaceuticals are delivered to, and behave within, the body. Includes drug formulation, pharmacokinetics, pharmacodynamics, controlled release, and targeted delivery. Additional work is required of graduate students.

**BEN 458 Biomedical Imaging 3 Y**

Double Numbered with: BEN 658  
Basics of imaging techniques useful for biological and medical applications. Microscopy, electron microscopy, acoustic microscopy, atomic force microscopy, magnetic resonance imaging. Discussion of images and literature. MRI laboratory exercises.

**BEN 462 Biofuels, Bioproducts, and Biorefining 3 Y**

Crosslisted with: CEN 462; Double Numbered with: BEN 662  
Survey of modern technologies available for the production of transportation fuels from abundant natural resources. Additional work required of graduate students.

**BEN 465 Biomechanics 3 Y**

Double Numbered with: BEN 665  
Functions and mechanical properties of cells and tissues, how those cells and tissues combine to form structures, the properties and behaviors of those structures, and biomechanical techniques to analyze the structures and individual components.  
PREREQ: ECS 221 AND MAT 485 AND BEN 364.

**BEN 466 Advanced Biomechanics 3-4 IR**

Double Numbered with: BEN 666  
Introduction to kinesiology and kinematics; finite element method; joint force analysis and the properties of bone cartilage and tendon as related to functional analysis of bone-joint systems.  
PREREQ: BEN 465.

**BEN 468 Biomaterials & Medical Devices 3 Y**

Double Numbered with: BEN 668  
Materials science and biological issues associated with medical devices and biomaterials are discussed. Bulk and surface materials science, tissue engineering, degradation and biocompatibility are addressed and related to medical device design and regulatory issues.

**BEN 470 Experience Credit 1-6 S**

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

**BEN 481 Bioinstrumentation 3 Y**

Measurement and analysis of biological signals in the time and frequency domain. Operational amplifiers, analog, and digital signal processing; sensors and sources of biopotentials; biopotential electrodes. Matlab, Labview and C programming.  
PREREQ: ELE 231 AND 232.

**BEN 485 Bioengineering Laboratory 4 Y**

Practical experience in the design, execution and analysis of experiments related to biomechanics and bioinstrumentation. Technical writing skills will also be emphasized. One four-hour laboratory a week.  
COREQ: BEN 465 AND 481.

**BEN 487 Bioengineering Capstone Design 3 Y**

Bioengineering design experience. Lecture, discussion, active learning components. Team design of biomedical system, device, or process from concept through prototype production. Includes design strategy, reliability, FDA regulations, patents, oral, and written presentations.

**BEN 490 Independent Study 1-6 S**

In-depth exploration of a problem or problems. Individual independent study based on a plan submitted by the student. R

**BEN 498 Senior Thesis 3 S**

Mentored investigation of an approved topic under the supervision of a member of the faculty. A written report and oral presentation are required in accordance with program guidelines.

**BEN 499 Honors Capstone Project 1-3 SI**

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

**BEN 500 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

BEN 541 Principles of Tissue Engineering 3 Y

Cellular and biomaterials principles relevant to tissue engineering, focusing on cellular and tissue organization; regulation of cell behavior; biomaterials for tissue regenerations; tissue engineering applications in cardiovascular, neurological, and musculoskeletal and other organ systems.

BEN 561 Polymer Science & Engineering 3 Y

Crosslisted with: CEN 561

Polymer structure, physical properties, and applications of polymers. Polymer synthesis, characterization of molecular structure, and copolymerization and blending. Unique physical properties of polymeric materials. Processing and applications of polymers.

BEN 575 Process Control 3 Y

Crosslisted with: CEN 575

Modeling and linearization of process dynamics. Transfer functions. Performance and stability of feedback control loops. Introduction to multivariable and digital controls.

BEN 580 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Chemical Engineering

CEN 212 Experimental Methods in Chemical Engineering and Bioengineering 3 Y

Crosslisted with: BEN 212

Statistical analysis and presentation of experimental data. Parameter estimation. Design of experiments. Hardware and software for computer interfacing. Collection, analysis, and reporting of laboratory data. PREREQ: MAT 296 AND ECS 104.

CEN 231 Mass and Energy Balances 3 Y

Crosslisted with: BEN 231

Material balances for single units and multistage processes. Recycle and bypass streams. Gas laws. Energy balances including latent and sensible heat effects, heats of reaction. Applications to biomedical processes.

CEN 252 Chemical Engineering

Thermodynamics I 3 Y

Review of first law. Second law and thermodynamic analysis of processes. Power and refrigeration cycles. Thermodynamic properties of pure substances and homogeneous mixtures. Phase behavior of ideal solutions.

PREREQ: CEN 231.

CEN 311 Chemical Engineering

Laboratory I 2 Y

Introduction to report writing and laboratory safety. Experiments on fluid mechanics, heat conduction, and convective heat transfer. Analysis of experimental data. Engineering reports, summary reports, and oral presentations required. One four-hour laboratory each week.

COREQ: CEN 341.

CEN 333 Fluid Transport 3 Y

Crosslisted with: BEN 333

Fluid statics. Shear stress and viscosity. Energy and momentum balances for flow systems. Dimensional analysis. Friction and drag coefficients. Turbulent flow of compressible and incompressible fluids. Non-Newtonian fluids.

PREREQ: MAT 397 AND (PHY 212 OR 216).

CEN 341 Fundamentals of Heat and Mass Transfer 4 Y

Crosslisted with: BEN 341

Principles of heat and mass transfer. Conduction, convection, and radiation. Thermal properties of materials. Solutions of steady state and transient heat and mass transfer problems. Diffusion with chemical reaction. Convective mass transfer. PREREQ: CEN 333 OR BEN 333.

CEN 353 Chemical Engineering

Thermodynamics II 3 Y

Thermodynamics of homogeneous mixtures and mixing processes. Phase equilibrium for nonideal solutions. Equilibrium stage separations with applications including distillation and extraction. Chemical reaction equilibria.

PREREQ: CEN 252.

CEN 390 Research In CEN 1-6 S

R

CEN 400 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

CEN 412 Chemical Engineering

Laboratory II 2 Y

Report writing and laboratory safety. Statistical analysis and experimental design. Experiments on distillation, diffusion, and convective mass transfer. Engineering reports, summary reports, and oral presentations required. One four-hour laboratory a week. PREREQ: CEN 341.

CEN 433 Drug Delivery 3 Y

Crosslisted with: BEN 433; Double Numbered with: CEN 633

Integration of biology, chemistry, and engineering to understand how pharmaceuticals are delivered to, and behave within, the body. Includes drug formulation, pharmacokinetics, pharmacodynamics, controlled release, and targeted delivery. Additional work is required of graduate students.

CEN 461 Environmental Chemistry and Analysis 3 Y

Crosslisted with: CIE 471; Double Numbered with: CEN 661

An introduction to chemical principles in natural and engineered environmental systems. Thermodynamics and kinetics of reactions; acid-base chemistry; environmental organic chemistry; treatment process design applications. Includes selected laboratory exercises. Additional work is required of graduate students.

CEN 462 Biofuels, Bioproducts, and Biorefining 3 Y

Crosslisted with: BEN 462; Double Numbered with: CEN 662

Survey of modern technologies available for the production of transportation fuels from abundant natural resources. Additional work required of graduate students.

CEN 472 Applied Env Microbiology 3 Y

Crosslisted with: CIE 472; Double Numbered with: CEN 672

General Principles and application of environmental microbiology and microbial processes. Role of microbes in water pollution control, environmental health, and element cycling in the environment. Additional work is required of graduate students.

CEN 490 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

CEN 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

CEN 500 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

CEN 520 Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation 3 SI  
Crosslisted with: NUC 520  
Radiochemistry for nuclear reactors and nuclear fuel reprocessing; nonproliferation issues through detection and monitoring, nuclear fuel reprocessing and design, waste vitrification and storage facilities, safety issues in nuclear fuel reprocessing.  
PREREQ: NUC 301.

CEN 540 Experiential Studies in Nuclear Technology 3 SI  
Crosslisted with: NUC 540  
Introduction to experimental methods, procedures and research techniques through projects at participating government facilities, industrial entities or Syracuse University.  
PREREQ: NUC 301 AND (NUC 510 OR NUC 520).

CEN 542 Heat and Mass Transfer Operations 3 Y  
Selected topics in mass and heat and heat transfer. Application of principles of units operations.  
PREREQ: CEN 341.

CEN 551 Biochemical Engineering 3 Y  
Introduction to microbiology, biochemical kinetics. Biochemical-reactor design, including methods for oxygen transfer and control. Introduction to separation processes in biochemical engineering.  
PREREQ: CHE 275 AND (CEN 333 OR BEN 333).

CEN 561 Polymer Science & Engineering 3 Y  
Crosslisted with: BEN 561  
Polymer structure, physical properties, and applications of polymers. Polymer synthesis, characterization of molecular structure, and copolymerization and blending. Unique physical properties of polymeric materials. Processing and applications of polymers.

CEN 565 Bioremediation 3 IR  
Crosslisted with: CIE 565  
Uses of bioremediation in engineering applications. Role of microorganisms in degradation of pollutants and contaminants. Regulatory, societal, and legal issues of bioremediation.  
PREREQ: CIE 472 OR CEN 472.

CEN 567 Biotechnology 3 IR  
Crosslisted with: CIE 567  
Engineering applications of biotechnology in agriculture, industry, and the environment. Principles of molecular genetics as applied in the biotechnology industry. Hands-on exposure to laboratory recombinant DNA technology.  
PREREQ: CIE 472/ CEN 472.

CEN 573 Principles and Design in Air Pollution Control 3 IR  
Fundamental principles of pollution control, design of control processes and equipment. Criteria for selection of control processes and equipment for gaseous and particulate pollutants.

CEN 574 Process Design 4 Y  
Chemical engineering principles for plant design and optimal process operation. Cost estimation and profitability analysis. Shortcut and computer-aided process design techniques. Environmental impact and health and safety concerns.  
PREREQ: CEN 353 AND 587.

CEN 575 Process Control 3 Y  
Crosslisted with: BEN 575  
Modeling and linearization of process dynamics. Transfer functions. Performance and stability of feedback control loops. Introduction to multivariable and digital controls.  
PREREQ: MAT 485.

CEN 576 Green Engineering 3 Y  
Review of environmental regulations. Evaluating the environmental fate of chemicals. Techniques for improving environmental performance of processes. Methods for evaluating environmental performance, design of unit Operations, and flowsheets for pollution prevention. Environmental cost accounting.  
PREREQ: CEN 341 AND 353.

CEN 587 Chemical Reaction Engineering 3 Y  
Conversion and reactor sizing, isothermal reactor design for flow and batch systems, rate laws and stoichiometry, analysis of rate data, multiple reactions, introduction to heterogeneous reactor design.  
PREREQ: CEN 341 AND CHE 356.

CEN 590 Recent Advances In CEN 3 IR  
Selected topics in research and new areas of competence in chemical engineering. R

## Civil Engineering

CIE 272 Civil and Environmental Engineering Measurements 3 Y  
Skills for civil and environmental engineering measurements. Map reading and theory of measurement. Numerical analysis and methods. Problem solving using computers.  
PREREQ: MAT 295.

CIE 274 Sustainability in Civil and Environmental Systems 3 Y  
Introduction to systems theory and concepts applied to natural and built environments. Sustainability, ecosystems, mass and energy balances, chemical transformation and reactions. Basic principles for sustainable civil and environmental engineering design and decision making.  
PREREQ: CHE 106 OR 109 OR 151) AND MAT 296.

CIE 326 Engineering Materials 3 Y  
Atomic, molecular, and crystalline structures of solid engineering materials. Explanation and interpretation of physical, mechanical, and electrical properties of materials based on these structures. Two one-hour lectures and one two-hour laboratory a week.

CIE 327 Prin of Fluid Mechanics 4 Y  
Dimensional analysis. Hydrostatics. Equations of motion. Bernoulli's equation. Euler's momentum theorem. One-dimensional analysis. Velocity potential. Stream function. Laminar viscous flow. Potential flow applications.  
PREREQ: MAT 397 AND ECS 221.

CIE 331 Analysis of Structures and Materials 3 Y  
Analysis of statically determinate and indeterminate trusses, beams, and frames by traditional and computer-based methods. Physical, mechanical, and thermal properties of conventional and environmental friendly construction materials.  
PREREQ: ECS 325.

CIE 332 Design of Concrete Structures 3 Y

Analysis and design of environmentally friendly reinforced concrete structures subjected to flexural, shear, and axial loads. Analysis of stresses and deformations and their relation to codes and specifications.  
PREREQ: CIE 331.

CIE 337 Introduction to Geotechnical Engineering 4 Y

Nature and composition of soils. Formation and classification of natural soils and man-made construction materials. Compaction, permeability and seepage, consolidation and settlement, shear behavior and strength.  
PREREQ: ECS 325.

CIE 338 Foundation Engineering 3 Y

Subsurface investigation, bearing capacity, lateral earth pressures. Design of retaining structures, shallow and deep foundations. Slope stability, foundations on difficult soils, and soil-improvement methods.  
PREREQ: CIE 337.

CIE 341 Introduction to Environmental Engineering 3 Y

Fundamental principles of environmental processes, pollution, and pollution control, including mass transfer, water chemistry and microbiology, water and air pollution, and solid- and hazardous-waste management.  
PREREQ: CIE 274.

CIE 352 Water Resources Engineering 4 Y

Analysis and design of hydraulic facilities including pipe systems, open channels, pumps and turbines, and ground water wells. Analysis of rainfall and riverflow; surface and subsurface water storage. Laboratory experiments and problem solving.  
PREREQ: CIE 327 OR MAE 341.

CIE 372 Project Layout and Site Planning 3 Y

Construction surveying; cut and fill calculations; route surveying; GPS methods; site planning and layout issues. Project-oriented course includes CAD applications in civil engineering and field work with modern surveying equipment and software.  
PREREQ: CIE 272.

CIE 433 Intermediate Structural Analysis 3 IR

Analysis of cables and arches. Classical and matrix methods of truss, beam, and frame analysis. Computer and numerical methods of structural analysis. Relation of analysis to design.  
PREREQ: CIE 331.

CIE 442 Treatment Processes in Environmental Engineering 3-4 Y

Double Numbered with: CIE 642  
Fundamental engineering concepts and principles used for the design and operation of water and wastewater treatment systems. Estimating water demand and wastewater flows in the urban water use cycle. Significance of government regulations and standards.  
PREREQ: (CIE 327 OR MAE 341) AND CIE 341.

CIE 443 Transportation Engineering 3 Y

Double Numbered with: CIE 643  
Transportation systems, modes and significance. Traffic engineering fundamental relationships and field studies. Intersection design and control. Geometric design of road alignments. Introduction to transportation planning. Additional work required of graduate students. A research report is required for CIE 643.

CIE 457 Biogeochemistry 3 Y

Double Numbered with: CIE 657  
Biogeochemical relationships as a unifying concept for ecological systems, including importance of biogeochemical relationships in ecosystems and global cycles. The interface between abiotic and biotic components of ecosystems is explained. Additional work required of graduate students.  
PREREQ: CHE 106 AND 107.

CIE 471 Environmental Chemistry and Analysis 3 Y

Crosslisted with: CEN 461; Double Numbered with: CIE 671  
An introduction to chemical principles in natural and engineered environmental systems. Thermodynamics and kinetics of reactions; acid-base chemistry; environmental organic chemistry; treatment process design applications. Includes selected laboratory exercises. Additional work is required of graduate students.

CIE 472 Applied Env Microbiology 3 Y  
Crosslisted with: CEN 472; Double Numbered with: CIE 672

General Principles and application of environmental microbiology and microbial processes. Role of microbes in water pollution control, environmental health, and element cycling in the environment. Additional work is required of graduate students.

CIE 473 Transp Process/Env Engrng 3 E  
Double Numbered with: CIE 673

Fundamentals and applications of mass and heat transport in environmental engineering. Molecular and turbulent diffusion, advection, dispersion, settling, and surface transfer in air and water. Quantitative applications in treatment systems and the natural environment. Additional work is required of graduate students.  
PREREQ: (CIE 327 OR MAE 341) AND CIE 341.

CIE 474 Environmental Health Engineering 3 Y

Double Numbered with: CIE 674  
An introduction to the relationship between human health and environmental processes. Toxicological effects of air, water and soil pollution. Approaches to risk assessment. Engineering approaches to minimize environmental health risks.  
PREREQ: CHE 106 AND CIE 341.

CIE 475 Civil and Environmental Engineering Design 4 Y

Capstone design experience. Fundamental principles in various areas of civil and environmental engineering applied to open-ended design projects. Economics, safety, reliability, environmental, sustainability, ethical and social considerations.

CIE 478 Rehabilitation of Civil Infrastructure 3 Y

Double Numbered with: CIE 678  
Deterioration of construction materials. Evaluation, non-destructive testing, and rehabilitation of existing structures. Properties and applications of repair materials. Seismic retrofit of bridges. Analysis and design of structural members retrofitted with carbon fiber reinforced polymer composites.  
PREREQ: CIE 332 AND ECS 325.

CIE 490 Independent Study 1-6 Y

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

CIE 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

CIE 529 Risk Anlys in Civ Engin 3 Y  
Probability, statistics, and decision theory applied to a variety of civil-engineering disciplines, such as structural design and analysis, geotechnical, water quality, water resources, and transportation.  
PREREQ: MAT 397.

CIE 535 Strctrl Steel Design 3 O  
Design of structures using load- and resistance-factor design concept. Limit states design of columns, beams, beam-columns, frames, connections, plate girders, and composite sections. Computer applications to design.  
PREREQ: CIE 331.

CIE 536 Prestrssd Concrete Design 3 O  
Analysis and design of prestressed concrete members for flexure, shear, torsion, and compression. Basic concept of prestressing. Stress computation and prestress loss estimation. Deflection and crack control.  
PREREQ: CIE 331.

CIE 538 Dynamics of Structures 3 SI  
Response of single and multiple degree of freedom systems to dynamic loadings (harmonic, blast, wind, earthquake); design of buildings, bridges, and pipelines for dynamic loading (with particular emphasis on earthquakes); building and bridge codes.

CIE 545 Pavement Design 3 E  
Pavement types and stress analysis, traffic assessment, subgrade and pavement materials evaluation, design of flexible and rigid pavements for highways and airports, pavement distress and rehabilitation, introduction to pavement management systems and SuperPave mix design.  
PREREQ: CIE 338; COREQ: CIE 443.

CIE 548 Engineering Economics and Technology Valuation 3 Y  
Crosslisted with: MAE 548  
Value-based assessment and management of engineering/technology projects: equivalence; discounted cash flow; taxes/depreciation; financial statements. Risk-adjusted valuation: risk/uncertainty in staged projects; Monte Carlo simulations; decision trees; real options; project portfolio management.  
PREREQ: MAT 296.

CIE 549 Designing with Geof foam 3 SI  
Introduction to geof foam production, physical properties, evaluation of engineering parameters, specification and quality assurance, analyses and design of selected applications, comparison with conventional methods, field monitoring, and case histories.  
PREREQ: CIE 338.

CIE 551 Energy Conversion 3 SI  
Crosslisted with: MAE 551  
Energy demand and resources. Fundamentals of combustion. Power plants, refrigeration systems. Turbines and engines. Advanced systems. Direct energy conversion. Alternate energy sources. Energy storage. Costs and environmental impact.

CIE 552 Building Environmental Measurements and Controls 3 SI  
Crosslisted with: MAE 552  
Fundamentals of building ventilating methods for measuring and controlling indoor environmental conditioning, thermal comfort, and indoor air quality.  
PREREQ: MAE 341 AND MAE 355.

CIE 553 HVAC Systems Analysis and Design 3 SI  
Crosslisted with: MAE 553  
Fundamentals of moist air properties, basic air conditioning processes, heat transfer in building structures, heating and cooling load calculations, and air distribution systems.  
PREREQ: MAE 251.

CIE 554 Prin Envrn Toxicology 3 Y  
Factors that make chemicals environmental hazards and techniques used in their evaluation. Topics include chemical, physiological, and molecular aspects of toxicology; transport and fate of chemicals in the environment; and current legislation.  
PREREQ: (BIO 121 AND 123) OR (CHE 106 AND 107 AND 275) OR (CHE 109 AND 129).

CIE 555 Hazardous Waste Mgmt 3 Y  
Regulations that address management of hazardous wastes. Practices and technologies commonly used in meeting regulations. Investigative and diagnostic techniques.

CIE 558 Solid Wastes: Collection and Disposal 3 O  
Composition of refuse. Quantities produced by individuals and industries. Collection equipment, methods, and associated costs. Disposal problems and solutions, such as landfills, incineration, and composting.

CIE 561 Air Resources I 3 O  
Occurrence, nature and properties, major sources and quantities of contaminants. Ambient air concentration levels, community distribution patterns, and control of air pollution.

CIE 565 Bioremediation 3 IR  
Crosslisted with: CEN 565  
Uses of bioremediation in engineering applications. Role of microorganisms in degradation of pollutants and contaminants. Regulatory, societal, and legal issues of bioremediation.  
PREREQ: CIE 472/CEN 472.

CIE 567 Biotechnology 3 IR  
Crosslisted with: CEN 567  
Engineering applications of biotechnology in agriculture, industry, and the environment. Principles of molecular genetics as applied in the biotechnology industry. Hands-on exposure to laboratory recombinant DNA technology.  
PREREQ: CIE 472.

CIE 570 Water&Wastewtr Trtmnt Des 3 IR  
Design of water and wastewater treatment plants; design capacity, process size and configuration, and overall treatment system performance for specific use needs and regulatory requirements. Groups prepare designs and cost estimates with written and oral reports.  
PREREQ: CIE 327 AND CIE 342. R

CIE 571 Water Quality Modeling 3 O  
Conceptual and mathematical models of water quality in surface waters. Application of mass and energy balances to aquatic systems. Numerical methods for solution of governing equations. Students will build simple models and use existing water quality modeling software.  
PREREQ: MAT 296 AND CIE 341.

CIE 584 Design W/Geosynthetics 3 SI  
Engineering properties of geosynthetics (geotextiles, geogrids, geonets, geomembranes, and geocomposites). Design of filters using geotextiles, retaining structures using geosynthetics, design of liquid impoundment, and solid waste containment facilities.  
PREREQ: CIE 337.

CIE 588 Principles of Wind Turbines 3 SI  
Crosslisted with: ECS 588, MAE 588  
Aerodynamics, performance, control, and electrical aspects wind turbines.  
PREREQ: MAE 341.

## Computer And Information Science

### CIS 223 Statistical Reasoning and Practice 3 Y

Methods for exploratory data analysis. Graphical and numerical summaries of numerical and categorical data. Drawing conclusions from data. Basic probability, correlation, estimation and testing. Concepts of study design.

PREREQ: MAT 194.

### CIS 252 Introduction to Computer Science 4 Y

Programming emphasizing recursion, data structures, and data abstraction. Elementary analysis of and reasoning about programs. Public policy issues. Extensive programming. Three hours of lecture and one hour of computer laboratory.

### CIS 275 Introduction to Discrete Mathematics 3 Y

Basic set theory and symbolic logic. Methods of proof, including mathematical induction. Relations, partitions, partial orders, functions, and graphs. Modular arithmetic. Credit cannot be given for both MAT 275 and CIS 275.

PREREQ: PHI 251.

### CIS 321 Introduction to Probability and Statistics 4 Y

Programming-oriented introduction to fundamentals in statistics and probability; elementary statistics, graphical and numerical representation; probability distributions; tests and confidence intervals; regression, and correlation. CPS 621 adds Journalism applications of statistical methods.

PREREQ: MAT 295.

### CIS 341 Computer Organization & Programming Systems 3 Y

Essentials of computer organization: digital logic, microprogramming, processors, memories, input-output devices. Instruction sets, assembly language, data types, relation to high level languages. Program construction, traps and interrupts, input-output programming.

PREREQ: ECS 102 OR CIS 252.

### CIS 342 Introduction to Systems Programming 1 Y

Input and output, including error handling, file descriptors and interface to OS. Pointers and pointer arithmetic. Structures. Memory functions and storage allocation. Makefiles, header files, libraries, compilation, and linking.

PREREQ: CIS 351; COREQ: CIS 341.

### CIS 351 Data Structures 4 Y

Abstract data structures, algorithm analysis, array, string lists, trees, binary search trees, priority queues, hashing, graphs, object-oriented programming. Three hours of lectures. One hour of computer laboratory.

PREREQ: CIS 252.

### CIS 352 Programming Language: Theory & Practice 3 Y

Environments, stores, scoping, functional and imperative languages, modules, classes, data encapsulation, types, and polymorphism. Implementation of these constructs in a definitional interpreter.

PREREQ: CIS 275 AND 351.

### CIS 380 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

### CIS 386 Principles of Computer System Design 3 Y

Crosslisted with: CSE 386

Fundamental design principles for computer and information systems. Concurrency, race conditions, complexity, modularity, abstraction, layering, hierarchy, iteration, emergent properties, organization, virtualization, performance, atomicity, fault tolerance, consistency, and security.

PREREQ: ECS 102 AND CIS 351.

### CIS 390 Honors Seminar in Computer & Information Science 3 IR

Specific topics in computer and information science suitable for honors-thesis research. R

### CIS 400 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### CIS 425 Introduction to Computer Graphics 3 IR

Graphics programming. User interfaces. Modeling and viewing transformations. Shading techniques. Representations of three-dimensional models. Curves and non-planar surfaces. Ray tracing and radiosity. Antialiasing.

PREREQ: CIS 351 OR CSE 382.

### CIS 428 Introduction to Cryptography 3 IR

Classical cryptosystems and their cryptanalysis, RSA and other public-key cryptosystems, pseudo-random sequences, zero-knowledge protocols, related ethical and social concerns.

PREREQ: CIS 477 OR MAT 534 OR 541.

### CIS 444 Mobile Application Programming 3 Y

Crosslisted with: CSE 444; Double Numbered with: CIS 651

Development of applications for different mobile devices. Creating effective user interfaces, efficient use of persistent storage, network services, GPS, maps and sensors.

Additional work required of graduate students.

PREREQ: CIS 351 OR CSE 382.

### CIS 453 Software Specification and Design 3 Y

Software requirements analysis, including structured analysis methodology. Behavioral and nonbehavioral aspects of software specification. Development of specification documents.

High-level design and software architecture.

PREREQ: CIS 351 OR CSE 382.

### CIS 454 Software Implementation 3 Y

Ethics in software development. Detailed design of software, using tools such as structure charts. Implementation and software testing. Team projects and presentations.

PREREQ: CIS 453.

### CIS 458 Data Networks: Basic Principles 3 Y

Crosslisted with: CSE 458, ELE 458

Data communication networks, multilayer network architecture, data transmission fundamentals, network protocols, local and wide area networks, transport and application protocols.

PREREQ: CIS 321 OR MAT 521.

### CIS 467 Introduction to Artificial Intelligence 3 SI

Double Numbered with: CIS 667

Knowledge representation, production systems, search algorithms, game playing, uncertainty handling, learning, automated reasoning, computer vision, and natural language processing. Programming project or term paper required for CIS 667, not for CIS 467.

PREREQ: CIS 275 AND 321 AND (CIS 351 OR CSE 382).

CIS 468 Natural Language Processing 3 SI  
Double Numbered with: CIS 668  
Linguistic and computational aspect of natural language processing technologies. Lectures, readings, and projects in the computational techniques required to perform all levels of linguistic processing of text. Additional work required of graduate students.

CIS 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

CIS 471 Optimization Methods 3 Y  
Classical methods of minimum and maximum, gradient methods, conjugate direction methods, linear programming and simplex algorithm, integer programming, non-linear optimization, random search algorithms.

CIS 473 Automata and Computability 3 Y  
Countable and uncountable sets; diagonalization proofs; finite state automata; regular, context-free, context-sensitive, recursive, and r. e. languages; Turing machines; relationships between classes of languages and machines; the halting problem; proof methods for decidability and undecidability.  
PREREQ: CIS 275 OR MAT 275.

CIS 477 Introduction to Analysis of Algorithms 3 Y  
Mathematical modeling of computational problems; searching and sorting algorithms; search trees, heaps, and hash tables; divide-and-conquer, dynamic programming, and greedy choice design techniques; graph algorithms; NP-completeness; and selected topics.  
PREREQ: CIS 275 AND 351.

CIS 478 Introduction to Quantum Computing 3 SI  
Purpose of QC; simple Markov processes; quantum registers; quantum state transitions; classical vs quantum models of computation; measurement and superposition; no-cloning theorem; quantum teleportation; quantum logic.  
PREREQ: CIS 275 AND (MAT 397 OR 331).

CIS 483 Introduction to Computer and Network Security 3  
Crosslisted with: CSE 484  
Operating system security. Authentication. Access control. Program vulnerabilities. Malicious code. Secure programming principles. TCP/IP protocols, vulnerabilities, attacks, and countermeasures. Firewalls. Intrusion detection. Secret-key and Public-key cryptography. One-way hash function. Digital Signature.  
PREREQ: CIS 486 OR CSE 486.

CIS 486 Design of Operating Systems 3 Y  
Crosslisted with: CSE 486  
Design and implementation of modern operating systems. Resource management and protection of CPU, memory, and storage. File systems. Input/output. Concurrent process implementation. Process synchronization. Networking.  
PREREQ: (CIS 341 AND 342 AND 351) OR (CSE 281 AND 382).

CIS 488 Introduction to Internet Security 3 Y  
Crosslisted with: CSE 488  
Network attack techniques and methods to defend them. Topics include vulnerabilities of TCP/IP protocols, denial of service attacks, intrusion detection, firewalls, tracing the source of attacks, anonymous communication, IPsec, virtual private network, and PKI.  
PREREQ: CIS 486 OR CSE 486.

CIS 489 Mobile Systems Security 3 SI  
Double Numbered with: CIS 689  
Components in Mobile OS; basic mobile app development; sandbox mechanism; permission enforcement; vulnerabilities; malware attacks. Additional work required of graduate students.  
PREREQ: CIS 486 OR CSE 486.

CIS 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

CIS 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

CIS 500 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

CIS 531 Compiler Construction 3 SI  
Programming a small compiler. Lexical analysis, tokens, finite automata, hashing. Syntax analysis, grammars, syntax trees, error recovery. Scope and type analysis, symbol tables. Run-time stack, variable addressing, expression evaluation, procedure activation, recursion. Code generation, Optimization, portability.  
PREREQ: CIS 351.

CIS 543 Control of Robots 3 Y  
Crosslisted with: ELE 516  
Kinematics, dynamics, and control of mobile and/or manipulator robots. Path planning, actuators, sensors, human/machine interface. Two hours lecture and two hours laboratory weekly. Design project.

CIS 545 Introduction to Combinatorics 3 Y  
Crosslisted with: MAT 545  
Permutations, combinations, recurrence relations, generating functions, inclusion-exclusion and applications, introductory graph theory.  
PREREQ: CIS 275 OR MAT 375.

CIS 551 Modern Programming in Java 3  
Programming in Java with generic classes. Defining generic classes. Specifying types and inheritance. Verifying correctness of Java methods and classes. Managing concurrency, remote method invocation, and performance considerations.

CIS 553 Software Systems Implementation 3 Y  
Organization, analysis, and documentation of a sophisticated implementation project in a prominent high-level language, such as ADA, C, or Modular-2. Substantial programming assignments and analytical documentation. Language and project may vary from year to year.  
PREREQ: CIS 453.

CIS 554 Object Oriented Programming in C++ 3 Y  
Survey of basic C constructs. Data abstraction, classes, derived classes, types, structures and template. Access control, information hiding, multiple inheritance. Formatting stream I/O, libraries, interfaces, modular system Organization. Substantial programming assignments.  
PREREQ: ECS 102.

CIS 565 Introduction to Artificial Neural Networks 3 SI  
Perceptrons and the Perceptron Convergence Theorem; non-linear optimization, gradient descent methods; neural net architecture, conjugate-gradient and recurrent networks; Hopfield networks, Kohonen's feature maps; non-neural clustering algorithms.

CIS 567 Knowledge Representation and Reasoning 3 IR  
Applications of mathematical methods to knowledge bases. Methods include nonclassical, fuzzy logic and statistical inference.  
Application topics include planning, temporal and physical reasoning, attitudes, the frame problem, preference, constraints, qualitative differential equations, situation theory.

CIS 581 Concurrent Programming 3 IR  
Processes, events, alphabets, and trace sets. Process equivalence. Divergence, dead-lock, fairness, and termination. Message channels, buffers, pipelines, trees, rings, grids, recursive nets. Mutual exclusion, semaphores, conditional critical regions, monitors, remote procedures. Programming exercises in Joyce.

CIS 583 Systems Assurance Seminar 3 IR  
Crosslisted with: CSE 583  
Basic terminology of assurance and cryptography. Social and privacy issues of assurance. Ethics in computing. Legal aspects and implications of system assurance. Weekly presentations by external and internal speakers.

## Computational Science

CPS 100 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

CPS 155 Introduction to Cyber Security 3 IR  
Introductory concepts of: network organization and operation security. Differentiate among physical, organizational and personal security. Introduce mechanisms and history of software, hardware and OS security. Significant hands-on laboratory component with demonstrations and projects.

CPS 181 Introduction to Computing 3 IR  
Organization of computers, elementary programming, and problem solving. Applications in such areas as calculation and visualization, communication, databases, graphics, and artificial intelligence. Origins of the modern digital computer, future trends, social impact, abuses. Includes lab.

CPS 185 Introduction to Animation and Game Development 3 SI  
This course provides a visual introduction to computer programming. Students will learn the basics of programming and high-level 3-dimensional animation together, while programming animations and games for assignments and an integrative final project.

CPS 196 Introduction to Computer Programming 3 S  
Basic computing concepts, data representation, problem definition, algorithms and flow charts, programming exercises. Students may not receive credit for both CPS 196 and ECS 102.

CPS 234 Introduction to Computational Thinking 3 IR  
Computational-thinking skills developed through team-based problem solving. Fundamental concepts of computation, including algorithms, data organization, and computational strategies. Application of those concepts to solve problems from multiple settings and disciplines.

CPS 290 Independent Study 1-6  
R

CPS 333 UNIX Operating System and Internet 3  
UNIX operating system: commands, hierarchical file systems, editors, windowing, networking, security, administration. Emphasis on shell programming, awk scripts, sed, e-mail, newsgroups, Internet, telnet/ftp, search tools (Archie, Gopher, WAIS, Mosaic). For nonmajors in computer science.

CPS 335 JAVA programming for the Internet 3  
Introduction to JAVA, object-oriented programming concepts and windows programming. Variables and data types, expression evaluation, control, stand-alone programs, inheritance, polymorphism, applets, graphics classes, arrays and strings, interfaces, threads, windows, widgets, animation, sound, libraries.

CPS 430 Topics in Computational Science 3 IR  
A variety of subjects surveyed or a particular subject in depth. R3, 12 credits maximum

CPS 490 Independent Study 1-6  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor and the department. R

CPS 504 Introduction to C++ 3  
Object oriented programming in C++: classes, derived classes, data abstraction, inheritance, and access control. Substantial programming assignments. For students not majoring in computer science.  
PREREQ: CPS 196.

CPS 506 Introduction to C 3  
Programming in C: data types, control structures; the preprocessor; arrays and pointers. Substantial programming assignments. For students in computer science.

## Computer Engineering

CSE 261 Digital Logic Design 3 Y  
Number representations, Boolean Algebra, logic minimization, memory circuits, counters, state diagrams, state machine design, arithmetic circuits, and asynchronous circuits. Logic simulators will be used to demonstrate and provide students with design activities.

CSE 280 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

CSE 281 Computer Organization & Assembly Language 3 Y  
Processor organization, addressing, fetch/execute cycle, instruction set, stacks, traps and interrupts. Machine language. Assemblers, macros, and subroutines.  
PREREQ: ECS 102.

CSE 282 System Software Design 3 SI  
Real-time aspects of assembly-language programming for complex systems with shared data and concurrent input/output. Input/output requirements and architecture, interrupts, buffering, concurrency of operations, and memory management.  
PREREQ: CSE 281.

CSE 283 Introduction to Object-Oriented Design 3 Y  
Present fundamental software design concepts of functional decomposition and object-oriented design. Use both C++ and Java to implement design projects which will be completed to demonstrate the design concepts.  
PREREQ: ECS 102.

CSE 351 Mathematical Analysis of Digital Systems 3 SI  
Techniques for the performance evaluation of computer systems. Simulation, analytical, and measurement techniques. Analytical techniques include evaluation of algorithms, scheduling algorithms, and independent and concurrent processes.  
PREREQ: CSE 281.

CSE 381 Computer Architecture 3 Y  
Data representation, memory hierarchies, protection, specialized processors, multiple computers, performance evaluation, and reliability.  
PREREQ: CSE 261 AND 281.

CSE 382 Algorithms & Data Structures 3 Y  
Data structures and algorithms implemented in high-level language. Nonnumeric processing, including database management. Types, structures, pointers, linked lists, recursion, iteration, retrieval, pattern recognition, and context processing.  
PREREQ: CSE 283.

CSE 384 Systems Programming 3 Y  
Study of real-world computing environment, especially C language over Linux. Use of standard library and operating system facilities for memory management, control flow, I/O, concurrent programming, etc., will be emphasized. Shell commands and shell scripting.  
PREREQ: CSE 281 OR CSE 283.

CSE 386 Principles of Computer System Design 3 Y  
Crosslisted with: CIS 386  
Fundamental design principles for computer and information systems. Concurrency, race conditions, complexity, modularity, abstraction, layering, hierarchy, iteration, emergent properties, organization, virtualization, performance, atomicity, fault tolerance, consistency, and security.  
PREREQ: CIS 351 OR CSE 382.

CSE 397 Computer Lab I 3 Y  
Experimental methods using electrical equipment. Logic modules, computer programming, analog and digital computer operation, logic-circuit design and testing. One hour of recitation and six hours of laboratory a week.  
PREREQ: CSE 261 AND ELE 292.

CSE 398 Computer Laboratory II 3 Y  
Continuation of CSE 397. One hour of recitation and six hours of laboratory a week.  
PREREQ: CSE 397.

CSE 444 Mobile Application Programming 3 Y  
Crosslisted with: CIS 444; Double Numbered with: CSE 651  
Development of applications for different mobile devices. Creating effective user interfaces, efficient use of persistent storage, network services, GPS, maps and sensors. Additional work required of graduate students.

CSE 458 Data Networks: Basic Principles 3 Y  
Crosslisted with: CIS 458, ELE 458  
Data communication networks, multilayer network architecture, data transmission fundamentals, network protocols, local and wide area networks, transport and application protocols.

CSE 464 Introduction to VLSI Design 3 Y  
Crosslisted with: ELE 464  
MOS VLSI technologies. CMOS digital circuits. Layout design. Simulation. Realization of digital subsystems-adders, memory, etc. Opportunities for chip fabrication and testing.  
PREREQ: CSE 261.

CSE 471 Introduction to Embedded System Design 3  
stem specification and architecture modeling; components of embedded systems; CPU, ASIC, control systems, interfacing peripherals; embedded computing platforms and real-time operating systems.  
PREREQ: CSE 382.

CSE 482 Principles of Software Engineering 3 Y  
Software life cycle; requirements and tools; informal and formal specifications; design methodologies; structural and functional testing; models for reliability and cost. Course project required.  
PREREQ: CSE 382 AND CIS 321.

CSE 483 C# and Windows Programming 3 SI  
Design and implementation of Windows 32-bit applications. Windows API techniques and Windows MFC techniques will be presented. This is a projects course.  
PREREQ: CSE 382 OR CIS 351.

CSE 484 Introduction to Computer and Network Security 3  
Crosslisted with: CIS 483  
Operating system security. Authentication. Access control. Program vulnerabilities. Malicious code. Secure programming principles. TCP/IP protocols, vulnerabilities, attacks, and countermeasures. Firewalls. Intrusion detection. Secret-key and Public-key cryptography. One-way hash function. Digital Signature.  
PREREQ: CIS 486 OR CSE 486.

CSE 486 Design of Operating Systems 3 Y  
Crosslisted with: CIS 486  
Design and implementation of modern operating systems. Resource management and protection of CPU, memory, and storage. File systems. Input/output. Concurrent process implementation. Process synchronization. Networking.  
PREREQ: (CIS 341 AND 342 AND 351) OR (CSE 281 AND 382).

CSE 488 Introduction to Internet Security 3 Y  
Crosslisted with: CIS 488  
Network attack techniques and methods to defend them. Topics include vulnerabilities of TCP/IP protocols, denial of service attacks, intrusion detection, firewalls, tracing the source of attacks, anonymous communication, IPsec, virtual private network, and PKI.  
PREREQ: CIS 486 OR CSE 488.

CSE 489 Web System Architecture and Programming 3 Y  
Issues involved in architecting and programming Web servers and clients. Topics include Java Socket Programming; Java Thread Programming; HTTP; Apache HTTP Server; PHP/Python scripting; Java Servlets; JSP.  
PREREQ: CIS 351 OR CSE 382.

CSE 491 Senior Design Project I 1 Y  
Design methodology and presentation techniques for one extensive project created by a team of students to be completed in the follow-up course. Must be taken in sequence with CSE 492.  
PREREQ: CSE 398.

CSE 492 Senior Design Project II 3 Y  
Prototyping, construction, and demonstration skills for one extensive project created by a team of students. Must be taken in sequence with CSE 491.

PREREQ: CSE 491.

CSE 497 Senior Design Project I-4 S  
Integrates skill in analysis, design, and presentation through one extensive project selected from a list generated by course advisors. R

CSE 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

CSE 561 Digital Machine Design 3 Y  
Behavioral and structural design methods and examples using a hardware description language (VHDL). Control, arithmetic, bus systems, memory systems. Logic synthesis from hardware language descriptions.  
PREREQ: CSE 261.

CSE 565 Introduction to VLSI Testing and Verification 3 SI  
Techniques for validating the correctness of the logical and physical implementation of a digital system in two independent modules: (1) functional verification, and (2) test and validation.  
PREREQ: CSE 261.

CSE 571 Switching Theory 3

CSE 581 Introduction to Database Management Systems 3 Y  
DBMS building blocks; entity-relationship and relational models; SQL/Oracle; integrity constraints; database design; file structures; indexing; query processing; transactions and recovery; overview of object relational DBMS, data warehouses, data mining.  
PREREQ: CSE 382 OR CIS 351.

CSE 583 Systems Assurance Seminar 3 Y  
Crosslisted with: CIS 583  
Basic terminology of assurance and cryptography. Social and privacy issues of assurance. Ethics in computing. Legal aspects and implications of system assurance. Weekly presentations by external and internal speakers.

CSE 588 Translator Design 3 SI  
Compiling or interpreting computer languages. Lexical analysis, grammars, parsing, intermediate code design, semantic processing, optimizing, error processing, and diagnostic tools. Senior or graduate standing in computer engineering.  
PREREQ: CSE 382.

CSE 591 Special Problems in Computer Systems Engineering 1-4 SI  
Students work on special projects. Instructors present new or special material. R29, 30 credits maximum

## Electrl & Computer Engr

ECE 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Engineering And Computer Science

ECS 100 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R11, 36 credits maximum

ECS 101 Introduction to Engineering and Computer Science 3 Y  
Gateway course: Discussion of disciplines within the college, technical communication, presentation of technical results, professional behavior, ethics, problem solving, modeling, and data analysis. Laboratory topics: computers, computer language, and software packages.

ECS 102 Introduction to Computing 3 Y  
Computing concepts. Principles of programming. Applications of computing concepts to problem solving in engineering and computer science. Laboratory topics will include problem solving projects from various disciplines within the college.

ECS 104 Engineering Computational Tools 3 Y  
Elementary numerical techniques for root finding, sets of equations, curve fitting, differentiation, integration. Programming concepts: conditional branching, loops, etc. Examples of engineering calculations. Use of Excel and Matlab.  
COREQ: MAT 295.

ECS 105 LCS SummerStart Supplemental Math Workshop 1 S  
Workshop designed to supplement the theory taught in math courses. Design problems will incorporate course work. Limited enrollment/special permission. R7, 8 credits maximum

ECS 109 ECS SummerStart Seminar 1 SS  
Designed to assist first-year students with their transition from high school to the University setting. Introduction of resources that will assist in the student's academic, social, cultural, and personal development through interactions with various representatives.

ECS 110 Introduction to Engineering Mathematics 3 SS  
This course brings together mathematics and engineering by quantifying and interpreting rates of change through the analysis of linear and non-linear phenomena and how these phenomena change with respect to time.

ECS 114 Academic Excellence Workshop for Pre-Calculus 1 Y  
Designed to supplement the theory taught in pre-calculus. Problems will incorporate course work. The computational component is designed to reinforce the understanding of concepts through a series of repetitive exercises.  
COREQ: MAT 194. R2, 3 credits maximum

ECS 115 Academic Excellence Workshop for Calculus I 1 S  
Designed to supplement the theory taught in Calculus I. problems will incorporate course work. The computational component is designed to reinforce the understanding of concepts through a series of repetitive exercises.  
COREQ: MAT 295. R2, 3 credits maximum

ECS 116 Academic Excellence Worksho for Calculus II 1 S  
Designed to supplement the theory taught in Calculus II. Problems will incorporate course work. The computational component is designed to reinforce the understanding of concepts through a series of repetitive exercises.  
COREQ: MAT 296. R2, 3 credits maximum

**ECS 117 Academic Excellence Workshop for Calculus III 1 S**

Designed to supplement the theory taught in Calculus III. Problems will incorporate course work. The computational component is designed to reinforce the understanding of concepts through a series of repetitive exercises.

COREQ: MAT 397. R2, 3 credits maximum

**ECS 122 Academic Excellence Workshop for Intro. to Computing 1 Y**

Designed to supplement the material taught in Introduction to Computing. Problems will incorporate course work and are designed to reinforce the understanding of concepts through a series of repetitive exercises.

COREQ: ECS 102. R2, 3 credits maximum

**ECS 125 Survey of Engineering Problems 2-3 IR**

Current design and research problems in engineering presented by faculty members actively working on these problems. Opportunities for student participation and individual project.

**ECS 200 Selected Topics 1-3 Y**

Exploration of topics not covered by the standard curriculum but of interest to faculty and students in a particular semester. R11, 36 credits maximum

**ECS 201 Academic Excellence Workshop for Statics 1 Y**

Designed to supplement the theory taught in the static (ECS 221) course. Design problems will incorporate course work. Limited enrollment/special permission.

COREQ: ECS 221. R2, 3 credits maximum

**ECS 202 Academic Excellence Workshop for Dynamics 1 Y**

Designed to supplement the theory taught in the dynamics course (ECS 222). Design problems will incorporate course work. Limited enrollment/special permission.

COREQ: ECS 222. R2, 3 credits maximum

**ECS 203 Introduction to Technology 3 Y**  
Crosslisted with: STS 203

Basic engineering principles behind some of today's rapidly changing technologies. The capabilities, limitations, and application of these technologies to audio and TV systems, CD players, communications' satellites, radar, computers, and the electric power system. For nonspecialists.

**ECS 204 Mathematical Programming for Engineers 1 Y**

Technical computing environment such as MATLAB; trigonometry and complex numbers; arrays and array operations; mathematical functions and applications; data analysis; selection programming; vectors; matrices and linear algebra; curve fitting and interpolation; integration and differentiation; symbolic processing.

**ECS 205 Academic Excellence Workshop for Thermodynamics 1 Y**

Designed to supplement the material taught in Thermodynamics. Problems will incorporate course work and are designed to reinforce the understanding of concepts through a series of repetitive exercises.

COREQ: MAE 251. R2, 3 credits maximum

**ECS 206 Academic Excellence Workshop for Mass & Energy Balances 1 Y**

Designed to supplement the material taught in Mass & Energy Balances. Problems will incorporate course work and are designed to reinforce the understanding of concepts through a series of repetitive exercises.

COREQ: CEN 231. R2, 3 credits maximum

**ECS 221 Statics 3 Y**

Fundamentals of static equilibrium. Vector algebra. Forces, moments, equivalent force systems. Free body diagrams and equilibrium problems in two and three dimensions. Analysis of structures and machines. Centroids and moments of inertia.

PREREQ: PHY 211 OR 215; COREQ: MAT 296.

**ECS 222 Dynamics 3 Y**

Dynamics of a particle. Newton's law and D'Alembert's principle. Plane motion. Cartesian, polar, and local coordinates. Energy and momentum methods. Motion of a rigid body. Review of vector algebra and moments of inertia.

PREREQ: MAT 296 AND ECS 221.

**ECS 290 Independent Study 1-6**

In depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

**ECS 301 Understanding Contemporary Technology 3 IR**

Survey of significant areas of technology: scientific bases, operating principles, physical capabilities and performance, economic limitations, social impact. Areas include: fuel, energy, materials, pollution control, environmental modification. May be taken in either order with 302.

**ECS 302 Understanding Contemporary Technology 3 IR**

Survey of significant areas of technology: scientific bases, operating principles, physical capabilities and performance, economic limitations, social impact. Areas include: fuel, energy, materials, pollution control, environmental modification.

**ECS 325 Mechanics of Solids 4 S**

Theory of deformation, stress, stress resultants, transformation. Elastic and inelastic constitutive behavior. Equilibrium. Tension and torsion of bars; flexure and shear of beams; pressure vessels. Thermoelasticity. Elastic and inelastic stability. Energy methods.

PREREQ: ECS 221; COREQ: MAT 397.

**ECS 326 Engineering Materials, Properties, and Processing 3 Y**

Introduction to the properties and applications of engineering materials with emphasis on structure-property-processing relationships; fundamentals of structure, properties, and processing; materials selection for design; case studies of specific engineering applications.

**ECS 353 Automotive Technology for Non-Engineers 3 IR**

A study of the modern automobile, using a recent model car as a laboratory example. Description and demonstration of engines, transmissions, body, suspension, brakes, steering, safety equipment, and fuel systems. Federal Motor Vehicle Standards.

**ECS 354 Green Technology and Sustainability 3 Y**

Energy consumption, climate change and global warming. The green movement. Current and alternative energy sources. Technologies for energy generation, conversion and storage. Sustainable development. Green economy. Political, economic and social aspects of green practices. Permission of instructor.

ECS 365 Engineering Peer Mentor Forum 1 Y

Designed to give Peer Mentors the opportunity to discuss issues and concerns within their weekly group meetings. Peer Mentors will work as a group to discuss, analyze, and problem solve advising and first year transition issues. R2, 3 credits maximum

ECS 370 Professional Practice 0 S

Full-time practical engineering or computer science work experience, with a participating employer, that is directly related to the student's field of study and is of a semester's duration. Student must be in good standing in the College of Engineering and Computer Science Cooperative Education Program. R

ECS 371 International Professional Practice 0

A supervised work experience in a laboratory at one of several European universities near an SU Abroad center. Offered only overseas through Syracuse University Abroad.

ECS 375 Academic Excellence Facilitator Forum 1 S

Designed to give facilitators the opportunity to discuss issues and concerns within their weekly workshop. Facilitators will work as a group to discuss, analyze, and problem solve participant issues. R7, 8 credits maximum

ECS 391 Legal Aspects of Engineering and Computer Science 3 SI

Legal issues related to engineering and computer science are investigated using case studies, research projects, and term papers. Topics include patents, copyright, licenses, trade secrets, technology transfer, computer crime, contracts, and product liability.

ECS 392 Ethical Aspects of Engineering and Computer Science 3 S

Ethical issues related to engineering and computer science studied, including professionalism, collective and individual moral responsibility, codes of ethics, whistle blowing, conflict of interest, pluralism in the workplace, product liability, and employer-employee expectations.

ECS 400 Selected Topics 1-3

Exploration of engineering and computer science topics not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ECS 401 Spec. Projects-Solving Program 3 Y

Projects sponsored by the greater University community are completed by interdisciplinary teams in consultation with a faculty advisor. Open to juniors and seniors.

ECS 441 Leonardo da Vinci: Artist and Engineer 4 O

Crosslisted with: HOA 425  
Interdisciplinary exploration of the life and work of Leonardo da Vinci (1452-1519). Supplemented by required field trip to Europe. Special application required.

ECS 470 Professional Practice 0 S

Full-time practical engineering or computer science work experience, with a participating employer, that is directly related to the student's field of study and is of one semester's duration. R

ECS 480 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

ECS 490 Independent Study 1-6

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ECS 498 Concepts & Issues of Tech. 3 IR

Role of engineering in modern society. Selection of criteria. Methods of problem analysis and decision making. Case studies.

ECS 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ECS 511 Sustainable Manufacturing 3 SI

Visions of sustainable manufacturing, systems approach to sustainable product development and design, manufacturing processes and systems, alternative energy systems for manufacturing, innovation and entrepreneurship opportunities. Senior standing.  
PREREQ: MFE 331.

ECS 525 Probability for Engineers 3 IR

Sample spaces, events, and probabilities. Conditional probability and independence. Random variables, random vectors. Probability distributions and densities. Expectations. Moment-generating functions. Introduction to data analysis. Engineering applications.

ECS 526 Statistics for Engineers 3 Y

Point estimation, confidence intervals, simple hypothesis testing, nonparametric tests, curve fitting and regression, analysis of variance, factorial experiments, and engineering applications.

PREREQ: ECS 525 OR MAT 521.

ECS 570 Professional Practice 0 S

Full-time practical engineering or computer work experience, with a participating employer, that is related to the student's field of study, and is of a semester's duration. May not be repeated.

PREREQ: ECS GRADUATE PROGRAM.

ECS 588 Principles of Wind Turbines 3 SI

Crosslisted with: CIE 588, MAE 588  
Aerodynamics, performance, control, and electrical aspects wind turbines.  
PREREQ: MAE 341.

## Electrical Engineering

ELE 231 Electrical Engineering

Fundamentals I 3-4 S  
Analysis of electric circuits. Resistive, reactive circuits. Independent, dependent sources. Network theorems, circuit reduction. Elements of transient and steady state circuit analysis. Power and energy considerations. Circuit simulation laboratory required for 4 credits.  
PREREQ: MAT 295.

ELE 232 Electrical Engineering

Fundamentals II 3 S  
Frequency response, filters. Second order circuits. Semiconductors, diodes, bipolar junction transistors, field effect transistors, models, circuits. Operational amplifiers, models, circuits. Transformers, rotating machines. DC generators and motors. Alternators. AC motors.  
PREREQ: ELE 231.

ELE 280 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

ELE 291 Electrical Engineering  
Laboratory I 1 Y

Electrical-instrumentation and measurement. Experimental methods in linear and nonlinear devices and circuits. One hour of recitation and one three hour laboratory a week.  
COREQ: ELE 231.

ELE 292 Electrical Engineering  
Laboratory II 1 Y

Continuation of ELE 291. Experimental methods and design with electrical circuits. SPICE circuit simulation. One hour recitation and one three-hour laboratory a week.  
PREREQ: ELE 291; COREQ: ELE 232.

ELE 312 Control Systems 3 Y

Review of LaPlace transforms and z-transforms, system modeling, transfer functions, feedback, stability. Analysis and design using computer tools. Applications of controls.  
PREREQ: ELE 351.

ELE 314 Introduction to Power  
Engineering 3 Y

Electromagnetic fundamentals; three-phase system; transformers; electrical motors and generators; power systems.  
PREREQ: ELE 231.

ELE 324 Electromagnetics I 3 Y

Crosslisted with: PHY 424  
Vector analysis, electrostatics, LaPlace's equation, dielectrics, magnetostatics, magnetic materials.  
PREREQ: MAT 397 AND (PHY 212 OR 216).

ELE 325 Electromagnetics II 3 Y

Crosslisted with: PHY 425  
Faraday's Law, displacement current, Maxwell's equations, plane waves, power flow in waves, reflection and transmission of waves, wave-guides, radiation, and antennas.  
PREREQ: ELE 324 OR PHY 424.

ELE 331 Digital Circuits and Systems 3 Y

Basic switching circuits and systems using diodes, bipolar and field-effect transistors. Integrated-circuit implementation of gates and counters.  
PREREQ: ELE 232.

ELE 333 Analog Circuits 3 Y

DC and small signal models of BJT and FET. Biasing of discrete circuits. Single-stage BJT and FET amplifiers. Voltage gain, current gain, input and output impedances. Differential amplifiers. Frequency response.  
PREREQ: ELE 231 AND 232.

ELE 346 Semiconductor Devices 3 Y  
Physics of semiconductor devices. Energy bands. Electrons and holes. PN and metal semiconductor diodes. Characteristics, operation, properties and limitations of bipolar transistors, JFETS and MOSFETS. PNP devices. Optoelectronic devices.  
PREREQ: PHY 212 OR 216.

ELE 351 System and Signal Analysis 3 Y  
Signal and system analysis in continuous-time, discrete-time, and frequency domains. Fourier series, continuous and discrete Fourier transforms, z-transform, LaPlace transform. Engineering applications.  
PREREQ: ELE 232 AND MAT 296.

ELE 352 Digital Signal Processing 3 Y

Discrete time sequences and systems. Sampling. Discrete Fourier transform. z-transform. Finite impulse response (FIR) filters. Infinite impulse response (IIR) filters.  
PREREQ: ELE 351.

ELE 391 Digital Circuits Laboratory 3 Y

Digital circuit analysis and design using discrete and integrated components. Extensive half-semester design project. Circuit simulation. One hour of recitation and two three-hour laboratories a week.  
PREREQ: ELE 292; COREQ: ELE 331.

ELE 392 Analog Circuits Laboratory 3 Y

Analog circuit analysis and design using discrete and integrated components. Extensive half-semester design project. Circuit simulation. One hour of recitation and two three-hour laboratories a week.  
PREREQ: ELE 292; COREQ: ELE 333.

ELE 400 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ELE 416 Electromechanical Devices 3 Y

Principles of energy conversion that provide the basis of operation for electrical machinery, meters, and other transducers. Rotating DC and AC machines.  
PREREQ: ELE 232.

ELE 417 Power Electronics 3 Y

Double Numbered with: ELE 617  
Semiconductor devices, switching power poles, switching analysis, topology selection and design, single phase and three phase rectifiers, inverters, and converters, feedback controllers and power supply. Additional work required of graduate students. First offered in Summer 2015  
PREREQ: ELE 314.

ELE 418 Sensors & Measurements 3 Y

Double Numbered with: ELE 618  
Sensor signal domains, sensor classifications and architecture, sensor types, data acquisition methods, signal conversion methods, standards, introduction to metrology, measurement result processing, synchrophasor technology and applications. Additional work required of graduate students. First offered in Summer 2015

ELE 424 Fundamentals of Radio  
Frequencies and Microwaves 3 Y

Transmission lines at high frequencies. Impedance matching. Network parameters. Basics of filters, couplers, amplifiers, oscillators, mixers, and antennas used in microwave communication systems. Basic microwave experiments.  
PREREQ: ELE 232.

ELE 425 Microwave Engineering 3 Y

Transient analysis of TEM lines, time domain reflectometer. Parameters of coaxial, strip and microstrip lines. Scattering parameters. Coupled lines, waveguides, cavities. Experimental illustration of microwave engineering concepts. Use of network and spectrum analyzers.  
PREREQ: ELE 424.

ELE 431 Analog Circuits and Systems 3 Y

Amplifiers using bipolar and field-effect transistors. Low- and high-frequency small-signal models. Multistage amplifiers, stabilization and noise considerations.  
PREREQ: ELE 333.

ELE 458 Data Networks: Basic Principles  
3 Y

Crosslisted with: CIS 458, CSE 458  
Data communication networks, multilayer network architecture, data transmission fundamentals, network protocols, local and wide area networks, transport and application protocols.

ELE 464 Introduction to VLSI Design 3 Y  
Crosslisted with: CSE 464  
MOS VLSI technologies. CMOS digital circuits. Layout design. Simulation. Realization of digital subsystems-adders, memory, etc. Opportunities for chip fabrication and testing.  
PREREQ: CSE 261.

ELE 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

ELE 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ELE 491 Senior Design Project I 1 Y  
Design methodology and presentation techniques for one extensive project created by a team of students to be completed in the follow-up course. Must be taken in sequence with ELE 492.

ELE 492 Senior Design Project II 3 Y  
Prototyping, construction, and demonstration skills for one extensive project created by a team of students. Must be taken in sequence with ELE 491  
PREREQ: ELE 491.

ELE 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ELE 512 Linear Control Systems 3 Y  
System representation, time and frequency domain analysis of linear systems, stability. Effects of feedback on system Performance. Controller design using root locus, Nyquist, and Bode methods.  
PREREQ: ELE 351.

ELE 514 Electric Power Systems 3 SI  
Equivalent circuits for the components of a power system. Analysis of balanced and unbalanced polyphase systems. Symmetrical components and sequence networks. Fault studies, load-flow analysis, stability considerations.

ELE 516 Control of Robots 3 Y  
Crosslisted with: CIS 543  
Kinematics, dynamics, and control of mobile and/or manipulator robots. Path planning, actuators, sensors, human/machine interface. Two hours lecture and two hours laboratory weekly. Design project.

ELE 524 Introduction to Applied Optics 3 SI  
Geometrical optics, two-dimensional Fourier transforms and wave propagation, optical fibers, Fresnel and Fraunhofer diffraction, interferometry, imaging and Fourier transforming properties of lenses, image processing, complex filters and holography. Includes laboratory: design and experiment.  
PREREQ: ELE 324.

ELE 525 Electromagnetic Compatibility 3 SI  
Introduction to electromagnetic compatibility (EMC). EMC requirements for electron systems. Nonideal behavior of circuit components. Signal spectra. Maxwell equations. Antenna theory. Control of radiated and conducted emissions.  
PREREQ: ELE 324 AND 351.

ELE 530 Electric Power Generation and Distribution 3 Y  
Crosslisted with: NUC 530  
Fundamental principles governing the electro-mechanical power conversion; transformer; generators; introduction to power distribution systems; reliability and safety issues related to power generation and delivery, particularly in nuclear power plants.3

ELE 541 Integrated Circuits 3 IR  
Principles of design and processing of monolithic and hybrid integrated circuits. Current technology and its scientific basis.

ELE 551 Communication Systems 3 Y  
Communications systems. Amplitude modulation techniques. Angle modulation or frequency modulation. Sampling and quantization of analog signals. Basic digital modulation techniques. Introduction to noise. System modeling evaluating performance using industry tools.  
PREREQ: ELE 351.

ELE 553 Communications Engineering 3 IR  
Integration of networks and electronic devices into apparatus and systems for communications. Transmitters, receivers, antennas, modulation, noise, propagation.

ELE 591 Special Problems in Electrical Engineering 1-4 SI  
Students work on special projects. Instructors present new or special material. R

ELE 599 Electrical Engineering Laboratory IV 3 Y  
Comprehensive projects selected from the student's area of interest. One hour of consultation and six hours of laboratory a week. May be repeat for credit.  
PREREQ: ELE 391. R

## Engineering Physics

ENP 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Mechanical And Aerospace Engineering

MAE 180 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

MAE 184 Engineering Graphics and Computer-Aided Design 3 Y  
Fundamentals of projections and intersections of surfaces. Dimensioning and tolerancing. Different solid and surface modeling techniques. Use of a computer-aided design system. Design problems.  
PREREQ: ECS 101.

MAE 251 Thermodynamics 4 Y  
Basic concepts in engineering thermodynamics. Thermodynamic properties of solids, liquids, and gases. First and second laws of thermodynamics. Reversible and irreversible processes. Entropy equation. Energy analysis of basic cycles.  
PREREQ: PHY 211 OR 215.

MAE 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MAE 312 Engineering Analysis 3 IR  
Analytical and numerical methods of engineering problem solving. Linear algebra, ordinary and partial differential equations. Applications include vibration theory, column buckling, steady and unsteady heat transfer, subsonic and supersonic potential flows, wave propagation in rods.  
PREREQ: ECS 104 AND MAT 414.

MAE 315 Mechanical and Aerospace Engineering Laboratory 3 Y  
Laboratory experiments in engineering and science topics. Introduction to statistical evaluation of data. Experiments will be selected from various topics including solid mechanics, fluid mechanics, digital signal processing and vibrations.  
PREREQ: ECS 325; COREQ: MAE 341.

MAE 321 Dynamics of Mechanical Systems 3 Y  
Formulation of dynamics problems using Newton's Laws with an introductory study of analytical dynamics. Vibration of linear systems. Computational techniques for predicting system response.  
PREREQ: ECS 325 AND 222 AND MAT 331 AND 414.

MAE 341 Fluid Mechanics 4 Y  
Dimensional analysis. Hydrostatics. Bernoulli's equation. Control volume analysis. Basic equations in differential form. Inviscid incompressible flows. Viscous flows in pipes and ducts. Estimation of head losses in fluid systems.  
PREREQ: ECS 221 AND MAT 397 AND (PHY 211 OR 215).

MAE 355 Fundamentals of Heat Transfer 4 Y  
Principles of heat transfer: conduction, convection, and radiation. Thermal properties of materials. Boiling and condensation. Solutions of steady state and transient heat transfer problems. Design of heat exchange systems.  
PREREQ: MAE 341; COREQ: MAE 251.

MAE 373 Analysis and Design of Structures 4 IR  
Elements of the plane theory of elasticity and strength of materials. Application to problems of mechanical and aerospace structures.

MAE 415 Mechanical and Aerospace Engineering laboratory III 2 IR  
Experiments in composite structures and instrumentation performed in small groups. Written and oral reports.

MAE 430 Introduction to Design Optimization 3 Y  
Theory and use of numerical design optimization methods. Problem formulation, practical application, and result analysis. Unconstrained nonlinear problems, constrained linear and nonlinear problems, and multiobjective optimization. Extensive use of Matlab functions and programming.  
PREREQ: MAT 397 AND MAT 414.

MAE 457 Automotive Engineering for ECS Students 3 Y  
An engineering study of the modern automobile, using a recent model car as a laboratory example. Analysis of engine, transmission, body, suspension, brakes, steering safety equipment, and fuel systems. FMVS Standards.  
PREREQ: MAE 251.

MAE 483 Applied Environmental Acoustics and Noise Control 3 Y  
Double Numbered with: MAE 683  
Introductory to environmental acoustics, sound propagation, psychoacoustics, noise criteria for design, noise sources, absorption, noise isolation, design of critical spaces, sound measurement, vibration isolation, product noise ratings, sound quality.  
PREREQ: PHY 101.

MAE 486 Fuel Cell Science and Technology 3 SI  
Fuel cell thermodynamics; electrode kinetics; performance and efficiency; transport process; types of fuel cells; fueling issues, and fuel cell systems and applications will be covered.  
PREREQ: MAE 251.

MAE 490 Independent Study 1-6  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

MAE 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

MAE 510 Nuclear Reactor Design, Operation and Safety 3 SI  
Crosslisted with: NUC 510  
Principles of fission reactor analysis and design; reactor kinetics, operation and control; reactor thermo-fluid-dynamics; reactor safety; reactor accident case studies.

MAE 536 Composite Materials 3 E  
Design, analysis, and manufacturing of fiber-reinforced composite materials. Emphasis is on polymeric composites for general aerospace and automotive applications, and on ceramic matrix composites for hypersonic applications.  
PREREQ: ECS 325.

MAE 545 Applications of Fluid Mechanics 3 SI  
Selected topics in applied fluid mechanics, to be determined by the instructor. Tools employed include control volume analysis, Bernoulli equation, exact and simplified solutions of the Navier-Stokes equations, and test correlations.  
PREREQ: MAE 341.

MAE 548 Engineering Economics and Technology Valuation 3 Y  
Crosslisted with: CIE 548  
Value-based assessment and management of engineering/technology projects: equivalence; discounted cash flow; taxes/depreciation; financial statements. Risk-adjusted valuation: risk/uncertainty in staged projects; Monte Carlo simulations; decision trees; real options; project portfolio management.  
PREREQ: MAT 296.

MAE 551 Energy Conversion 3 SI  
Crosslisted with: CIE 551  
Energy demand and resources. Fundamentals of combustion. Power plants, refrigeration systems. Turbines and engines. Advanced systems. Direct energy conversion. Alternate energy sources. Energy storage. Costs and environmental impact.  
PREREQ: MAE 251.

MAE 552 Building Environmental Measurements and Controls 3  
Crosslisted with: CIE 552  
Fundamentals of building ventilating methods for measuring and controlling indoor environmental conditioning, thermal comfort, and indoor air quality.  
PREREQ: MAE 341 AND 355.

MAE 553 HVAC Systems Analysis and Design 3  
Crosslisted with: CIE 553  
Fundamentals of moist air properties, basic air conditioning processes, heat transfer in building structures, heating and cooling load calculations, and air distribution systems.  
PREREQ: MAE 251.

MAE 554 Principles of Refrigeration 3  
Basic thermodynamic analysis of refrigeration cycles. Components selection. Environmental issues and recent developments in the refrigeration and the air conditioning industry. PREREQ: MAE 251.

MAE 571 Applications of Computational Fluid Dynamics 3 SI  
Use of commercial Computational Fluid Dynamics (CFD) softwares to solve problems of practical interest. Modeling of fluid/thermal systems. Introduction to CFD algorithms. Simulation, evaluation, and interpretation of CFD results. PREREQ: MAE 341.

MAE 573 Application of Finite Element Analysis 3  
Formulation of mechanics and heat transfer problems by finite element analysis. Application of the finite element method using commercial software in the static and dynamic analysis of mechanical components. PREREQ: ECS 325 AND MAT 331 AND 414.

MAE 585 Principles of Turbomachines 3 SI  
Crosslisted with: AEE 685, MEE 685  
Fluid dynamics and thermodynamics of turbomachines. Performance characteristics and analysis of axial and radial turbomachines. Cascade theory. Radial equilibrium equation. Meridional flow analysis. Three dimensional flow characteristics of turbomachines. PREREQ: MAE 251 AND 341.

MAE 587 Design of Solar Energy System 3 IR  
Fundamentals of solar radiation, collectors and storage. Design of solar space heating, cooling; water heating systems. Study of solar electric systems. Economics of solar design; application to heat pumps, energy conservation techniques. PREREQ: MAE 251.

MAE 588 Principles of Wind Turbines 3 SI  
Crosslisted with: CIE 588, ECS 588  
Aerodynamics, performance, control, and electrical aspects wind turbines. PREREQ: MAE 341.

### Mechanical Engineering

MEE 270 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

MEE 290 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by permission of supervising instructor or instructors and the department. R

MEE 332 Introduction to Machine Design and Manufacturing 4 Y  
Introduction to the design process. Design, analysis, and application of machine components such as springs, gears, shafts, keys, drive chains, and belts. Manufacturing processes required to produce machine components. Open-ended design projects required. PREREQ: ECS 222 and 325 .

MEE 416 Mechanical Engineering Laboratory 1 Y  
Experiments in air conditioning, refrigeration, and turbomachines performed in small groups. Written and oral reports. PREREQ: MAE 251 AND 315 AND 341 AND 355.

MEE 454 Air Conditioning 3 SI  
sychro-metrics, air conditioning for human comfort and industrial processes, heating and cooling loads, air distribution, a/c systems, design project. PREREQ: MAE 251.

MEE 456 Applications of Heat Transfer 3 IR  
Applications of principles of heat transfer to analysis and design of heat-exchange and dissipation devices. Boiling and condensation heat transfer. Aspects of environmental heat transfer, such as thermal pollution and its control. PREREQ: MAE 355.

MEE 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

MEE 471 Synthesis of Mechanical Systems I 3 S  
First capstone design course. Students formulate open-ended design projects. Selected projects require assimilation of knowledge from several areas within mechanical engineering. Oral and written reports. May not be taken concurrently with MEE472. Senior standing required. PREREQ: MEE 332 AND MAE 184.

MEE 472 Synthesis of Mechanical Systems II 4 Y  
Continuation of MEE 471. PREREQ: MEE 471.

MEE 473 Engineering Design Analysis 3 IR  
Design problems that integrate the principles of diverse engineering courses. Use of ANSYS as a modeling and analysis tool.

MEE 475 Special Design Project 3 SI  
Special design project carried out by student under supervision of staff member.

MEE 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

MEE 486 Introduction to Nuclear Power 3 IR  
Application of engineering principles to nuclear power reactors. Relation of nuclear power to present and future world energy sources. Elements of reactor theory. Power removal, utilization, and economics. Design considerations and examinations of nuclear power plants. PREREQ: MAE 251.

MEE 487 Design of Solar-Energy Systems 3 IR  
Solar radiation, collectors, and storage. Design of solar space heating, cooling; water-heating systems. Solar electric systems. Economics of solar design. Applications of heat pumps, energy conservation techniques. PREREQ: MAE 251.

MEE 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

MEE 499 Honors Capstone Project 1-3  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

MEE 524 Microprocessors in Mechanical and Manufacturing Engineering 3 SI  
Introduction to the microprocessor and its various configurations used in controlling machine operations, data acquisition, etc. Project-oriented work involving program development in machine, assembly, and basic languages. Micro-computers used for off-line program development. Not open to electrical and computer engineering students.

MEE 571 Computer Aided Design 3 SI  
Use CAD software and hardware in the solution of mechanical engineering problems. Computer graphics, computer aided geometry (space curves, splines, patches) design, solid modeling, optimization and an introduction to finite element method.  
PREREQ: MAE 184 AND MAT 331.

MEE 584 Noise from Industrial Flow Systems 3 IR  
Basic fluid mechanics and acoustics. Noise generation by fluid flows and their interaction with solid bodies. Types of noise sources. Analysis and control of such flow noise sources in manufacturing, transportation, propulsion, power generation, and industrial control systems.  
PREREQ: MAE 341.

MEE 585 Fuel & Energy Utilization 3

### Manufacturing Engineering

MFE 326 Probability and Statistical Methods for Engineers 4 IR  
Theory of probability, sampling, estimation, hypothesis testing, quality control techniques. Experimental design and analysis.

MFE 331 Manufacturing Processes 3 Y  
Fundamentals of casting, forming, machining, joining, assembly, and other manufacturing processes. Measurement and gauging, integration of manufacturing with other disciplines, design for manufacture, the manufacturing organization, laboratory experience.  
PREREQ: MAE 184.

MFE 429 System Modeling and Optimization 3 SI  
Introduction to system modeling and optimization techniques and their applications. Topics include linear programming and its extensions, integer programming, dynamic programming, stochastic modeling, simulation and other system modeling techniques.  
PREREQ: MAT 397 AND MAT 521.

MFE 436 Robotics in Manufacturing 3 SI  
Topics include requirements for robotic application, mechanical considerations, and effectors, sensors, software, applications, and optimization of robotic systems. Laboratory experiments included.

MFE 453 Production Planning and Control 3 SI  
Problems in designing and controlling manufacturing facilities. Layout design, line balancing, production planning, sequencing, material-requirements planning, group technology, and quality control.  
PREREQ: MFE 326 AND 429.

MFE 470 Experience Credit 1-3  
Participation in a discipline or subject-related experience. Students will be evaluated by written and/or oral report. R

MFE 472 Synthesis of Manufacturing Systems 4 IR  
Formulation and execution of manufacturing engineering design projects requiring information from several disciplines.

MFE 534 Statistical Quality Control 3 IR  
Controlling product quality through the control of the manufacturing process and acceptance sampling. Industrial project required.  
PREREQ: MFE 326.

MFE 535 Introduction to Manufacturing Systems 3 SI  
Numerical control (NC), computer assisted NC programming, NC programming using CAD/CAM system, robot programming, manufacturing automation protocol (MAP), manufacturing cells, flexible manufacturing systems (FMS), and computer integrated manufacturing (CIM) systems. Laboratory assignments.  
PREREQ: MAT 296.

MFE 557 Management Decisions in Manufacturing 3 IR  
General management issues regarding the primary importance of manufacturing technology, economic decision making, organization theory, and the management of manufacturing technology.

MFE 595 Multidisciplinary Analysis and Design 3 IR  
Interdisciplinary subjects related to engineering, information technology, networking, AI and HTTP://WWW-based tools. The objective is to use different MAD tools in the product realization process.  
PREREQ: MEE 571.

### Materials Science

MTS 421 Introduction to Ceramics 3 SI  
Ceramics as a class of materials composed of inorganic, nonmetallic components. Development, utilization, and control of properties of ceramic materials.

MTS 431 Physical Metallurgy 3 SI  
Properties of metals and alloys. Transformations and their consequences in practical systems.

MTS 471 Materials for Engineering Applications 3 SI  
Deformation and fracture of metals, ceramics, and polymers. Materials for applications at high temperatures, corrosive environments, high strengths, and light weights. Prepares students to select materials for certain engineering functions.

MTS 533 Introduction to Theory of Materials 3 IR  
Theoretical concepts that describe the electronic structure of crystals. Models of electron and ion interactions to correlate electronic, magnetic, and thermal properties of metals, alloys, and compounds.

MTS 537 Introduction to Diffusion in Solids 3 IR  
Diffusion mechanisms, diffusion equations and their methods of solution.

MTS 570 Nondestructive Testing 3 IR  
Determination of defects in structural materials. Nondestructive inspection methods include noise emission techniques, X-ray radiography, leak detectors, ultrasonics, magnetic and electrical methods. R

MTS 581 X-Ray Diffraction 3 SI  
Kinematic theory of X-ray diffraction and its applications in materials science. Experimental methods. Integrated intensity, line broadening, and peak shift analyses. Crystal structure. X-ray effects of imperfections in crystals.

### Nuclear Energy Track

NUC 301 Introduction to Nuclear Engineering and Reactor Safety 3 Y  
Importance of nuclear energy to society. Nuclear and radiological engineering. Nuclear energy production. Radioactive waste. Reactor safety  
PREREQ: PHY 212.

NUC 510 Nuclear Reactor Design,  
Operation and Safety 3 SI  
Crosslisted with: MAE 510  
Principles of fission reactor analysis and  
design; reactor kinetics, operation and control;  
reactor thermo-fluid-dynamics; reactor safety;  
reactor accident case studies.

NUC 520 Radiochemistry, Nuclear Fuel  
Reprocessing and Nonproliferation 3 SI  
Crosslisted with: CEN 520  
Radiochemistry for nuclear reactors and  
nuclear fuel reprocessing; nonproliferation  
issues through detection and monitoring,  
nuclear fuel reprocessing and design, waste  
vitrification and storage facilities, safety issues  
in nuclear fuel reprocessing.  
PREREQ: NUC 301.

NUC 530 Electric Power Generation and  
Distribution 3 Y  
Crosslisted with: ELE 530  
Fundamental principles governing the electro-  
mechanical power conversion; transformer;  
generators; introduction to power distribution  
systems; reliability and safety issues related to  
power generation and delivery, particularly in  
nuclear power plants.3

NUC 540 Experiential Studies in Nuclear  
Technology 3 SI  
Crosslisted with: CEN 540  
Introduction to experimental methods,  
procedures and research techniques through  
projects at participating government facilities,  
industrial entities or Syracuse University.  
PREREQ: NUC 301 AND (NUC 510 OR NUC  
520).

# Faculty

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Riyad S. Aboutaha, Associate Professor,  
Program Director Civil Engineering  
Ph.D., University of Texas at Austin, 1994  
Structural design, evaluation, and  
rehabilitation; structural concrete and  
composites; infrastructure renewal

Amit Agrawal, Assistant Professor  
Ph.D. University of Utah, 2008  
Nanoplasmonics, Metamaterials,  
Nanophonics, Nanofabrication, Terahertz  
Optoelectronics, Nonlinear Optics and  
Ultrafast Optics.

Jeongmin Ahn, Assistant Professor  
Ph.D., University of Southern California 2006  
Energy Conversion, Combustion, Thermal  
Management, PowerMEMS

Benjamin Akih-Kumgeh, Assistant  
Professor  
PhD, McGill University, Canada, 2011  
Combustion Physics & Chemistry; Fuel  
Technology.

Ercument Arvas, Professor  
Ph.D., Syracuse University, 1983  
RF/Microwave devices and circuits,  
electromagnetic scattering

Rebecca Bader, Associate Professor  
Ph.D. Materials Science, Oregon State  
University, 2006  
Drug delivery; Molecular biotechnology;  
Nanotechnology

Karl R. Behnke, Adjunct  
M.S., University of Houston at Clear Lake,  
1991  
Statistics and quality control

Shobha K. Bhatia, Professor, Laura J. and L.  
Douglas Meredith Professor  
Ph.D., University of British Columbia, 1980  
Geosynthetic applications, image processing,  
soil dynamics, geo-environmental

Howard A. Blair, Associate Professor  
Ph.D., Syracuse University, 1980  
Knowledge Representation and Automated,  
hybrid systems, formal methods and  
verification

Michelle Blum, Assitant Professor  
PhD, University of Notre Dame, May 2012  
Orthopedic implant development, polymer  
characterization and simulation of tribological  
contacts

Edward A. Bogucz Jr., Associate Professor  
Ph.D., Lehigh University, 1985  
Fluid mechanics, heat transfer, numerical  
methods

Jesse Q. Bond, Assistant Professor  
Ph.D. University of Wisconsin, Madison 2009

Tomislav Bujanovic, Research Associate  
Professor

Katie D. Cadwell, Assistant Professor,  
Undergraduate Chemical Engineering Program  
Director  
Ph.D. University of Wisconsin, Madison 2007

Douglas F. Call, Assistant Professor  
Ph.D., Penn State University, 2011  
Environmental biotechnology, microbiology,  
bioenergy, waterwaster treatment

Frederick J. Carranti, Instructor  
M.S.M.E., Syracuse University, 1994  
Licensed professional engineer, energy system  
analysis, manufacturing processes

Joseph Chaiken, Professor, Chemistry  
Ph.D. University of Illinois 1982  
Spectroscopy

David G. Chandler, Associate Professor  
Ph.D., Cornell University, 1998  
Hydrology, soil physics, environmental  
monitoring

Stephen J. Chapin, Associate Professor  
Ph.D., Purdue University, 1993  
Operating systems, distributed systems,  
computer networking, computer security,  
system assurance

Biao Chen, Professor  
Ph.D., University of Connecticut, 1999  
Signal processing, Communication and  
Information Theory

C.Y. Roger Chen, Professor  
Ph.D., University of Illinois, 1987 CAD for  
VLSI physical synthesis and multimedia  
information technologies

Hao Chen, Research Assistant Professor  
Ph.D. Syracuse University 2007  
Signal and image processing and  
communications, including wireless sensor  
networks (WSN), stochastic resonance (SR),  
detection and estimation, remote sensing and  
image processing.

Ruth Chen, Professor of Practice  
Ph.D., MPH, University of Michigan  
Risk Assessment; Environmental Regulation;  
Injurious Effect of Environmental Chemicals;  
Aerosol Delivery of Chemo-preventive  
Agents; Alternative Energy; Environmental  
Education; Metabolism of Hepatotoxic  
Aliphatic Halogenated Hydrocarbons

Shiu-Kai Chin, Professor  
Ph.D., Syracuse University, 1986  
Formal verification, security, access control

Lisa B. Cleckner, Research Faculty  
Ph.D., University of Michigan, 1995  
Environmental health sciences

Samuel P. Clemence, Professor Emeritus,  
Laura J. and L. Douglas Meredith Professor  
Ph.D., Georgia Institute of Technology, 1973  
Soil mechanics, geotechnical engineering,  
foundation engineering

Andria Costello Staniec, Associate  
Professor, Associate Provost for Academic  
Programs  
Ph.D., California Institute of Technology,  
1999  
Environmental biology

Thong Dang, Professor  
Ph.D., Massachusetts Institute of Technology,  
1985  
Theoretical/ computational fluid dynamics of  
internal/external flows

Joan V. Dannenhoffer, Associate Professor  
M.S., University of Connecticut, 1998; MBA,  
Rensselaer Polytechnic Institute, 1986  
Engineering education pedagogy, engineering  
mechanics, groundwater remediation

John F. Dannenhoffer, Associate Professor  
Sc.D., Massachusetts Institute of Technology,  
1987

Computational fluid dynamics, modeling and  
analysis in industry, collaborative education

Andrew L. Darling, Assistant Professor,  
Undergraduate Bioengineering Program  
Director  
Ph.D. Mechanical Engineering, Drexel  
University, 2005  
Biomaterials/Tissue Engineering; Molecular  
Biotechnology; Nanotechnology

Barry D. Davidson, Laura J. and L. Douglas Meredith Professor; Professor, Mechanical and Aerospace Engineering; Program Director Aerospace Engineering  
Ph.D., Texas A&M University, 1988  
Mechanics of composite materials, fracture mechanics, solid mechanics

Cliff I Davidson, Thomas C. and Colleen L. Wilmot Professor of Civil and Environmental Engineering  
Ph.D. California Institute Of Technology  
Engineering sustainability, air quality, water management through green infrastructure

R. Leland Davis, Research Faculty  
M.S., University of Michigan  
Indoor environmental quality

Kimberley M. Driscoll, Research Faculty  
M.S.E.G., Syracuse University, 1991  
Environmental systems engineering

Charles T. Driscoll Jr., University Professor  
Ph.D., Cornell University, 1979  
Aquatic chemistry, biogeochemistry, environmental modeling

Wenliang (Kevin) Du, Professor  
Ph.D., Purdue University, 2001  
Computer system and network security; data mining (security and privacy issues); security in wireless ad-hoc and sensor networks; security education

Gino Duca, Adjunct Instructor  
M.S. Chemical Engineering Syracuse University 2009  
Process Design, Thermodynamics

Charles E. Ebbing, Adjunct Professor  
M.S.E.E., SUNY, University at Buffalo, 1966  
Acoustic consulting, sound quality, community noise, noise criteria, sound measurements, test facilities, creative problem solving

Mahmoud EL Sabbagh, Professor of Practice  
Ph.D. University of Maryland College Park 2002

Modeling, optimization, and design of RF/Microwave components such as: low cost miniaturized and tunable microwave filters for radar and satellite, miniaturized antennas, and antennas with pattern diversity for wireless devices; Development and design of microwave sensors for material characterization; Model, design, and implement metamaterials as strong surface-wave suppressor used for EMI/EMC applications or redirection of electromagnetic waves; Material characterization; RF/microwave measurements and calibration; Numerical analysis and scientific computations for electromagnetic applications using MMT, MOM, FEM, and FDFD; Electrical characterization of nanomaterials and their integration in microwave components; Thin film characterization using Scanning Electron Microscopy (SEM) and Transmission Electron Microscopy (TEM).

Gustav A. Engbretson, Professor Emeritus  
Ph.D. Zoology, University of Oklahoma, 1976

Ehat Ercanli, Associate Professor  
Ph.D., Case Western Reserve University, 1997  
VLSI, computer-aided design, design automation for digital systems, computer architecture

Makan Fardad, Assistant Professor  
Ph.,D., University of California, Santa Barbara, 2006  
Structured control of spatially distributed and large-scale systems, input-output analysis of PDEs with periodic coefficients, parametric resonance in spatio-temporal systems

Bart Farell, Research Associate Professor  
Ph.D., McGill University, 1977  
Affiliate Member, Institute for Sensory Research. Visual psychophysics, visual object recognition

James W. Fawcett, Professor  
Ph.D., Syracuse University, 1981  
Software, software complexity, re-use, salvage

Julian Fernandez, Research Assistant Professor, Biomedical and Chemical Engineering; Institute for Sensory Research  
Ph.D., National University of LaPlata (Argentina), 1998  
Biological evolution models

Prasanta Ghosh, Professor; Electrical Engineering Program Director  
Ph.D., Pennsylvania State University, 1986  
Microelectronics, solidstate devices, optoelectronics, thin film processes, power engineering

Jeremy L. Gilbert, Professor  
Ph.D. Metallurgical and Materials Science, Carnegie Mellon University 1987  
Biomaterials Science and Engineering; Orthopedic Implant Materials and Devices; Corrosion and Biological Interactions with Metallic Biomaterials; Surfaces of Biomaterials; Implant Retrieval Analysis and Performance Testing; Novel Instrumentation and Testing Development for Biomaterials Analysis.

Eileen D. Gilligan, Adjunct  
Ph.D., Syracuse University, 1983  
Environmental geology

Mark N. Glauser, Professor; Associate Dean for Research and Doctoral Programs  
Ph.D., University at Buffalo, SUNY, 1987  
Turbulence, flow control, fluid mechanics of built environments, dynamical systems, unsteady aerodynamics, heat transfer, acoustics, applied mathematics, signal processing and instrumentation

Amrit L. Goel, Professor  
Ph.D., University of Wisconsin, 1968  
Software engineering; data mining applications, radial basis function models

Albert Goldfain, Research Assistant Professor

Melissa Green, Assistant Professor  
Ph.D. Princeton University, 2009  
Experimental Fluid Dynamics

Mustafa Cenk Gursoy, Associate Professor  
Ph.D. Princeton University, 2004  
Wireless Communications, Information Theory, Communication Networks, and Signal Processing.

Carlos R.P. Hartmann, Professor  
Ph.D., University of Illinois, 1970  
Development of the theory of decoding and the design of practical decoding algorithms for error-correcting codes, fault detection in digital systems

Julie M. Hasenwinkel, Associate Professor, Associate Dean for Student Affairs  
Ph.D. Biomedical Engineering, Northwestern University 1999.

Biomaterials/Tissue engineering; Complex fluids, soft condensed matter, rheology; Drug delivery; Multi phase systems; Nanotechnology

James H. Henderson, Associate Professor, Graduate Bioengineering Program Director  
Ph.D., Mechanical Engineering, Stanford University, 2004

Biomaterials/Tissue engineering; Mechanobiology; Biomechanics

John C. Heydweiller, Associate Professor  
Ph.D. Chemical Engineering, Kansas State University 1977

Mathematical and numerical analysis

Robert Irwin, Research Assistant Professor  
Ph.D., Syracuse University 2011  
Generalized Dynamical Systems, Computability and Complexity, Quantum Computation

Can Isik, Professor, Senior Associate Dean, College of Engineering and Computer Science  
Ph.D., University of Florida, 1985  
Applications of Neural Nets and Fuzzy Logic, Intelligent Systems, Controls, Medical Instrumentation, Environmental Control Systems

Chris E. Johnson, Associate Professor, Program Director Environmental Engineering  
Ph.D., University of Pennsylvania, 1989  
Environmental geochemistry, soil chemistry, statistical modeling

Kaveh Jokar Deris, Assistant Professor  
Ph.D., University of Victoria, Canada, 2008  
Computer architecture and low power design; parallel computing and chip multi-core processors, VLSI design: semiconductor fabrication and ASIC design, firmware/hardware digital design: FPGA prototyping and real-time systems

Lashun K. Thomas, Assistant Professor  
Ph.D, Virginia Tech, 2011  
Groundwater and soil remediation, bioremediation, monitored natural attenuation

Swiatoslaw W. Kaczmar, Adjunct  
Ph.D., Michigan State University, 1983  
Toxicology and environmental disposition of chemical and physical contaminants

H. Ezzat Khalifa, Professor, Mechanical and Aerospace Engineering; Director, NY STAR Center of Environmental Quality Systems  
Ph.D., Brown University, 1976

Thermofluid dynamics of environmental control and energy systems, fluid machinery, valuation of technology

Philipp Kornreich, Professor  
Ph.D., University of Pennsylvania, 1967  
Fiber light amplifiers, lasers, optical fibers, image propagation through fibers

Donald W. Lake, Adjunct  
B.S., SUNY at Buffalo, 1970  
Urban stormwater and erosion control

Andrew Chung-Yeung Lee, Assistant Professor  
Ph.D., University of Maryland, College Park, 1998

Artificial intelligence, data structures, operating systems, software engineering, computer theory, computer security

Jay Kyoong Lee, Professor  
Ph.D., Massachusetts Institute of Technology, 1985

Electromagnetic fields and waves, microwave remote sensing, antennas and propagation, waves in complex media

Raymond D. Letterman, Professor Emeritus  
Ph.D., Northwestern University, 1972  
Physical-chemical separation in water and wastewater treatment

Alan J. Levy, Professor  
Ph.D., Columbia University, 1982  
Theoretical and applied mechanics, applied mathematics

Jacques Lewalle, Associate Professor  
Ph.D., Cornell University, 1981  
Fluid mechanics, thermodynamics

Yingbin Liang, Assistant Professor  
Ph.D. University of Illinois at Urbana-Champaign, 2005  
Wireless Communications and Networks, Information Theory, Probabilistic Graphical Models, Information Security, Scheduling in Mobile Ad-hoc Wireless Networks, Resource Allocation for Wireless Networks, Cognitive Radio Wireless Networks

Eric Mun Lui, Associate Professor, Laura J. and L. Douglas Meredith Professor  
Ph.D., Purdue University, 1985  
Computer-aided analysis and design of structures, structural stability, structural dynamics, earthquake engineering

Yan-Yeung Luk, Assistant Professor, Chemistry  
Ph.D. University of Chicago 2001  
Bio-organic and chemical biology; Nanomaterials; Biosurfaces

Sinead Mac Namara, Assistant Professor  
Ph.D., Princeton University 2007  
Innovation and creativity in structural engineering education; structural art; community engaged design-build; and the structural performance of shell structures

James A. Mandel, Professor Emeritus  
Ph.D., Syracuse University, 1967  
Composite materials, fiber reinforced concrete, curved bridge design, finite element analysis

Duane L. Marcy, Associate Professor  
Ph.D., Rensselaer Polytechnic Institute, 1996  
Semiconductor manufacturing, processes, and devices; molecular electronics using the protein bacteriorhodopsin with applications of volumetric and holographic memories and thin films for semiconductor-protein based devices

Shalabh Maroo, Assistant Professor  
Ph.D. University of Florida, 2009  
Multi-scale transport phenomenon, Thermal Management and Bio-mechanical Systems.

George C. Martin, Professor  
Ph.D. Chemical Engineering, University of Minnesota 1976  
Complex fluids, soft condensed matter, rheology

Patrick T. Mather, Milton and Ann Stevenson Professor of Biomedical & Chemical Engineering & Director, Syracuse Biomaterials Institute  
Ph.D. Materials, University of California at Santa Barbara 1994  
Biomaterials/Tissue engineering; Complex fluids, soft condensed matter, rheology; Corrosion and electrochemistry; Drug delivery; Molecular biotechnology; Nanotechnology

Kishan G. Mehrotra, Professor  
Ph.D., University of Wisconsin, 1971  
Multisensor scene analysis, algorithms, neural networks and genetic algorithms; earlier work in statistical inference includes reliability theory, coding theory, time series analysis

Chilukuri K. Mohan, Professor, Electrical Engineering and Computer Science; Chair Ph.D., State University of New York at Stony Brook, 1988

Artificial intelligence, neural networks, evolutionary algorithms, optimization, pattern recognition, uncertainty

Young Bai Moon, Associate Professor, Mechanical and Aerospace Engineering; Director, Institute for Manufacturing Enterprises

Ph.D., Purdue University, 1988  
Manufacturing systems, machine learning, concurrent engineering

Belal Mousa, Adjunct  
Ph.D., Syracuse University, 1994  
Structural analysis and design, composite materials, computer analysis

Vadrevu R. Murthy, Professor  
Ph.D., Georgia Institute of Technology, 1974  
Helicopter dynamics, aeroelasticity and structural dynamics

Shikha Nangia, Assistant Professor  
Ph.D. Chemistry, University of Minnesota, 2006

Multiscale computational modeling of nanomaterials and targeted cancer drug delivery

Dawit Negussey, Professor  
Ph.D., University of British Columbia, 1985  
Geotechnical engineering, experimental soil mechanics, stress strain behavior

Ruixin Niu, Research Assistant Professor  
Ph.D., University of Connecticut, 2001  
Statistical signal processing and communications; data fusion and distributed detection and tracking; collaborative signal processing in wireless sensor networks; video-based change detection and object tracking

Kent Ogden, Part Time Associate Professor  
Ph.D., Medical College of Wisconsin, 1999

Jae C. Oh, Associate Professor, Computer Science Program Director  
Ph.D., University of Pittsburgh, 2000  
Cooperation in multi-agent systems, application of game theory and artificial intelligence techniques to the Internet and distributed computer systems, evolutionary algorithms, game theory, search and optimization algorithms, machine learning algorithms

Susan Older, Associate Professor  
Ph.D., Carnegie Mellon University, 1996  
Semantics of programming languages, concurrency, fairness, logics of programs, formal methods

Lisa Osadciw, Assistant Professor  
Ph.D., University of Rochester, 1998  
Spread spectrum signal design, wireless communications and Radar Systems, radar signal processing, multi-sensor fusion processing, digital receivers, adaptive and statistical signal processing, tracking

Emmet M. Owens Jr., Adjunct Associate Professor  
M.S.C.E., Colorado State University 1977  
Hydraulics, environmental fluid mechanics, water quality modeling

Daniel J. Pease, Associate Professor  
Ph.D., Syracuse University, 1981  
Design and development of shared and distributed parallel systems, software and tools; performance optimization for multi-thread client/server application in C, C++, Ada, Java, and .NET applications on different parallel architectures, including mobile wireless systems and cyber security on mobile systems

Peter W. Plumley, Research Associate Professor  
Ph.D., University of California, Santa Cruz, 1984  
Science education, K-12 outreach

Leonard J. Popyack Jr., Research Associate Professor  
Ph.D., Binghamton University, 1998  
Watermarking, steganography, information attack detection, information security system architectures

Qinru Qiu, Associate Professor, Computer Engineering Program Director  
Ph.D. University of Southern California 2001  
Dynamic power, thermal and performance management of multiprocessor system-on-chip Power and performance optimization of energy harvesting real-time embedded systems Neuromorphic computing and high performance computing for bioinformatics and cognitive applications

Laleh Rabieirad, Research Assistant Professor

Dacheng Ren, Associate Professor, Graduate Chemical Engineering Program Director  
Ph.D., Chemical Engineering, University of Connecticut, 2003

Biomaterials/Tissue engineering; Corrosion and electrochemistry; Indoor air quality/environmental engineering; Molecular biotechnology; Sustainable energy production; Systems biology/metabolic engineering

Philip A. Rice, Professor Emeritus  
Ph.D. Chemical Engineering, University of Michigan, 1963

Jorge Luis Romeu, Research Professor  
Ph.D., Syracuse University, 1990  
Statistical modeling, data analysis, simulation modeling, operations research

Utpal Roy, Professor, Program Director, Mechanical Engineering  
Ph.D., Purdue University, 1989  
Computer-integrated design and manufacturing, development and application of operations research, finite-element methods, geometric modeling, computational geometry, artificial intelligence techniques

James S. Royer, Professor  
Ph.D., State University of New York at Buffalo, 1984  
Theory of the computational complexity of higher-type functionals, structural computational complexity theory, computational learning theory, biological computing

Ossama "Sam" Salem, Department Chair, A. Yabroudi Chair Professor  
Ph.D. University of Alberta, 1998  
Construction engineering & management, sustainable infrastructures and green construction, asset management

Ashok Sangani, Professor  
Ph.D., Chemical Engineering, Stanford University, 1982  
Complex fluids, soft condensed matter, rheology; Molecular biotechnology; Multiple phase systems; Mathematical and numerical analysis

Suresh Santanam, Adjunct, Civil and Environmental Engineering, Biomedical and Chemical Engineering; Associate Director, Syracuse Center of Excellence in Environmental and Energy Systems  
Sc.D., Harvard University, 1989  
Air pollution, hazardous wastes management

Tapan K. Sarkar, Professor  
Docteur Honoris Causa de l'Universite Blaise Pascal, France; Docteur Honoris Causa, Politechnic University of Madrid, Spain, 2004; Ph.D., Syracuse University, 1975  
Analysis and design of electromagnetic radiation from various devices like computers, radio-television towers, and satellite and cable broadcasting system; design of mobile adaptive communication systems including antennas; analysis intelligent signal processing

Fred Schlereth, Research Associate  
Professor  
Ph.D. Syracuse University, 1969  
Past research interests include: Quadrupole Mass Spectrometer, Fourier Transform Ion Cyclotron Resonance Mass Spectrometer, Quartz Crystal Vacuum Deposition Monitor, Halogen Gas Leak Detector; Analog and Digital Signal Processing and Circuit Design, VLSI Circuit Design; Architecture, Algorithms and Hardware for Parallel Computation; VLSI Cellular Array Computer; Distribution-free Detection Theory, Imaging in Dispersive Media; Neural Networks for Financial Applications. Current research interests include: design of VLSI Signal Processing Circuits for Software Defined Radio.

Klaus Schroder, Professor Emeritus  
Ph.D., University of Göttingen, 1954

Walter H. Short, Adjunct, Biomedical and Chemical Engineering Research Professor; Department of Orthopedic Surgery, SUNY Upstate Medical University  
M.D., SUNY Upstate Medical University, 1975  
Orthopedic biomechanics

Ernest Sibert, Professor  
Ph.D., Rice University, 1967  
Computational logic, logic programming, and parallel computation

Robert L. Smith, Emeritus Professor and Director of the Institute for Sensory Research  
Ph.D., Syracuse University, 1973

Pranav Soman, Assistant Professor  
Ph.D., Pennsylvania State University, 2009  
Bioprinting, Biomaterials, Tissue Engineering and Additive manufacturing (3D printing)

Q. Wang Song, Professor  
Ph.D., Pennsylvania State University, 1989  
Photonic switching, fiber communications, electro-optics, guided-wave optical devices, optical sensors

Eric F. Spina, Professor, Vice Chancellor and Provost  
Ph.D., Princeton University, 1988  
Fluid dynamics, compressible flows, turbulence

Laura J Steinberg, Dean  
Ph.D., Duke University, 1993  
Environmental Engineering

Alexander Stern, Distinguished Professor Emeritus  
Ph.D., Ohio State University, 1952  
Structure/permeability relationships of 'rubbery' and 'glassy' polymers; membrane processes for the separation of gases, vapors, and liquids.

Radhakrishna Sureshkumar, Distinguished Professor, Biomedical and Chemical Engineering; Chair  
Ph.D. Chemical Engineering, University of Delaware 1996  
Complex fluids, soft condensed matter, rheology; Multiple phase systems; Nanotechnology; Sustainable energy production; Systems biology/metabolic engineering; Mathematical and numerical analysis

Jian Tang, Assistant Professor  
Ph.D. Arizona State University, 2006  
Assistant Professor, Electrical Engineering and Computer Science; Ph.D. Arizona State University, 2006; Wireless Networking and Mobile Computing, Green Computing and Networking, Cloud Computing, Data Centers, Algorithm Design and Analysis.

Lawrence L. Tavlarides, Professor  
Ph.D., Chemical Engineering, University of Pittsburgh, 1968  
Indoor air quality/environmental engineering; Multiple phase systems; Sustainable energy production

William C. Tetley, Part-Time Instructor

Chi Tien, Distinguished Professor Emeritus  
Ph.D., Northwestern University, 1958

Pramod K. Varshney, Distinguished Professor; Research Director, NY State Center for Advanced Technology in Computer Applications and Software Engineering (CASE)  
Ph.D., University of Illinois, 1976  
Communications, signal and image processing, multisensor data/information fusion, remote sensing, wireless communications, detection theory

Thomas D. Vedder, Instructor Emeritus, Mechanical and Aerospace Engineering; Director, Engineering Management Program  
B.S., Syracuse University, 1970  
Mechanical laboratory experimentation, microprocessor machine control design

Naveen Velagapudi, Adjunct  
M.E., PSG Technology Institute, India, 1984  
Quality management, project management, manufacturing automation

Senem Velipasalar, Assistant Professor  
Ph.D. Princeton University, 2007  
Computer Vision, Video/Image Processing, Battery-Powered Embedded Smart Camera Systems, Distributed Multi-Camera Systems, Pattern Recognition, Statistical Learning, Signal Processing and Information Theory.

Hong Wang, Professor  
Ph.D., University of Minnesota, 1985  
Signal processing, communication engineering, radar/sonar systems

David S. Wazenkewitz, Adjunct  
B.S., Syracuse University  
Environmental engineering and solid waste management

Volker Weiss, Research Professor, Electrical Engineering and Computer Science, Professor Emeritus, Mechanical and Aerospace Engineering, Physics; Director, Engineering Physics Program; Faculty, Solid-State Science and Technology  
Ph.D., Syracuse University, 1957  
Mechanical behavior of solids, materials science and engineering; computer applications

Min Xu, Research Assistant Professor

Abdallah Yabroudi, Adjunct Professor Civil and Environmental Engineering  
B.S. Syracuse University

Heng Yin, Assistant Professor  
Ph.D. The College of William and Mary, 2009  
System Security, Malware Analysis and Detection Using Binary Analysis Technique; Network Security

Edmund Yu, Research Associate Professor

Angela Zachman, Assistant Professor  
Ph.D., Vanderbilt University, 2014  
Engineering therapeutic scaffolds for peripheral artery disease: Emphasis on pro-angiogenic and anti-inflammatory regulation.

Christian Zemlin, Part-time Assistant  
Professor  
Ph.D., Humbolt University, Germany, 2002

Jianshun S. Zhang, Professor  
Ph.D., University of Illinois, Urbana-  
Champaign, 1991  
Building environmental and mechanical  
systems, materials emissions and indoor air  
quality, room air and contaminant  
distributions, multizone air and air  
contaminant transports in buildings, building  
energy efficiency, integrated computer  
simulation tools for building environmental  
and mechanical system design, system analysis  
and optimization

Josef J. Zwislocki, Distinguished Professor  
Emeritus  
Sc.D. Federal Institute of Technology, Zurich  
1948

# David B. Falk College Of Sport And Human Dynamics

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Diane Lyden Murphy, Dean  
falk.syr.edu/

## About The College

### David B. Falk College Of Sport And Human Dynamics

Welcome to the David B. Falk College of Sport and Human Dynamics. The Falk College brings together Syracuse University's professional programs in Child and Family Studies, Food Studies, Marriage and Family Therapy, Nutrition Science and Dietetics, Public Health, Sport Management and Social Work in an environment of cross-disciplinary teaching, research, practice and service. Through classroom learning and hands-on experience, our students learn by example—and by doing—to become professionals who will provide services that enhance the emotional and physical well-being of individuals, families, and communities.

The Falk College leadership team includes:

- Irene Kehres, Associate Dean, Student Services
- Eileen Lantier, Senior Associate Dean, Academic Affairs
- Deborah J. Monahan, Associate Dean, Research

The Dean's Office of the Falk College can be reached at 315-443-5555 for more information about academic programs, services and all other activities related to the College.

Dean Diane Lyden Murphy, M.A., M.S.W., Ph.D.

## Dean's Message

### Dean's Message

### Welcome To The David B. Falk College Of Sport And Human Dynamics

The Fall 2014 semester marks the start of my tenth year as the dean of the Falk College where our academic programs address the entire gamut of human behavior—from the physical through the psychological to the social and cultural dimensions of individual, family and community life.

The faculty and staff in our College are excited about the work they do at Syracuse University where they are engaged in our local community and committed to their respective fields of research and scholarship that span the globe. Together, we continue to work strategically and purposefully on every level for one reason—our students.

Our academic programs and degree offerings provide our students with the best possible educational experiences both inside and outside of the classroom. Many experiential learning opportunities are often linked to faculty affiliations of professional significance. Their deep connections span local school districts and human service programs, regional medical centers, for-profit and not-for-profit entities, national and international government organizations and beyond. Our College Research Center supports interdisciplinary research, scholarship and entrepreneurship.

As Dean, I couldn't be more excited about the work we are doing in the Falk College and the opportunity to offer students the educational experiences of their lives. That our students have selected our College is an honor and a privilege we take very seriously. We are committed to developing our students as leaders and good global citizens who don't simply solve problems but whose life mission is to find a better way to answer the needs of our society.

It is my honor to introduce you to the David B. Falk College of Sport and Human Dynamics. I hope you will be as impressed as I continue to be with our faculty, staff and students and all they do to make our College one of the most inspiring and innovative members of the SU community.

Sincerely,  
Diane Lyden Murphy, M.A., M.S.W., Ph.D.  
Dean

## Undergraduate Program Overview

### David B. Falk College Of Sport And Human Dynamics

Diane Lyden Murphy, Dean  
315-443-2027



## Undergraduate Program Overview

The David B. Falk College of Sport and Human Dynamics is Syracuse University's most service-oriented college; cross-professional collaboration is the cornerstone of teaching, research, and practice. Like professionals in the field, students and faculty in the college work and learn together across disciplinary lines to find new, more effective approaches to important social issues. Through the bachelor's degree programs in child and family studies, food studies, public health, nutrition science and dietetics, social work, and sport management, students prepare to become professionals who will enhance the emotional and physical wellbeing of individuals, families, and communities.

Faculty members are current and former practitioners who provide a real-world perspective on the professional field. The small college atmosphere allows for personalized attention from the faculty and staff who guide students through the educational experience. In consultation with faculty mentors and staff advisors, students choose a major program of study and select coursework that provides necessary professional preparation enhanced by a solid liberal arts education.

The integration of theory and practice lies at the heart of the college's mission. Through the college's extensive internship program, students gain valuable hands-on experience that complements their classroom learning and better prepares them for their careers.

## GENERAL REGULATIONS

For academic rules and regulations that apply to all University students, see the Academic Rules and Regulations section of this catalog. This section also contains special regulations that apply to all students matriculated in the College.

## COMBINED, DUAL, AND DOUBLE PROGRAMS

Approval for combined, dual, and double programs of study must be obtained from each academic unit involved.

## PED GENERAL ELECTIVES

Up to 4 credits in physical education (PED) courses numbered 100-299 may be included among the general elective credits counted toward a degree in the college for singly enrolled students.

## FEES

Laboratory fees are required in certain courses, where specialized equipment and materials are provided.

## INTRA-UNIVERSITY TRANSFER

Qualifying GPA varies, depending on the major. Departments may have additional criteria. Applicants are required to discuss tentative transfer plans with the academic chair or director of the proposed program of study. Students who meet department criteria will be admitted on a space-available basis. Transfer requests may be held until the end of the semester.

## Special Services And Programs

### GERONTOLOGY CERTIFICATE

Any University student may earn a certificate in gerontology from the University Aging Studies Institute while completing undergraduate studies. Students must take 15 credits of gerontology-related coursework and complete a special project. Social work students seeking the certificate normally complete the senior field practicum and the special project in a gerontology setting.

### PART-TIME STUDY

Students unable to enroll for full-time study may complete the bachelor's degree on a part-time basis through University College (UC). Part-time students register through UC and are advised both by UC advisors and by faculty in the College.

### EXPERIENCE CREDIT

Social work students may earn elective academic credit for volunteer or paid work experience in social service agencies that occurs while they are enrolled in the undergraduate program. Learning contracts must be set up before the student engages in the experience and usually involve an agreement between the student, a supervising agency staff member, and an appropriate faculty member. Academic credit is not awarded for life or work experience achieved before matriculation in the program.

### STUDY ABROAD

The College, in cooperation with the Syracuse University Abroad (SU Abroad), strongly encourages students to take advantage of the opportunity to study abroad. Study abroad options include semester, summer, and short-stay programs.

SU Abroad offers students the opportunity to participate in a program of study abroad in Santiago, Chile; London, England; Madrid, Spain; Strasbourg, France; Florence, Italy; Hong Kong, China; or Beijing, China. Syracuse University also builds strong overseas affiliations and partnerships, allowing students to be placed directly at other centers and universities.

No prior knowledge of a foreign language is required, with the exception of the Chile program, and students may choose from a variety of courses to fulfill requirements or elective credits for their program of study in the College. It is essential that students begin planning early for study abroad and work closely with their academic advisors.

For further information, contact the Office of Student Services in the David B. Falk College of Sport and Human Dynamics, 340 Sims Hall, 315-443-3144, or Syracuse University Abroad, 106 Walnut Place, 315-443-3471.

## MINORS

Students in the College are strongly encouraged to complete a minor, and should seek assistance from their academic advisors in choosing a minor that will enhance their academic programs and add breadth and depth to their college experience. With careful and early planning, most minors can fit into the undergraduate curriculum without a need of extra coursework. Descriptions and requirements for minors in the College are found on subsequent pages in this catalog. The following is a list of minors offered by the David B. Falk College of Sport and Human Dynamics:

- Addiction Studies
- Child and Family Policy
- Child and Family Studies
- Food Studies
- Gerontology (interdisciplinary minor)
- Health and Wellness
- Mindfulness and Contemplative Studies
- Nutrition
- Nutrition Science
- Public Health
- Social Welfare
- Sport Management

A complete list of minors offered at Syracuse University can be found under the "Programs Offered" heading at the top of this web page. Individual schools and colleges list specific requirements for each minor in this publication. Students may obtain specific information by contacting the department offering the minor.

## Academic Departments

### David B. Falk College Of Sport And Human Dynamics

Diane Lyden Murphy, Dean  
315-443-2027

#### Academic Departments

The College brings together a rich history of academic programs whose signatures of social responsibility and justice join new and evolving majors reflective of educating global citizens whose leadership can—and does—change the places and people where they live and work.

Our academic programs include:

- Child and Family Studies
- Marriage and Family Therapy
- Public Health, Food Studies and Nutrition
- Social Work
- Sport Management

## Child And Family Studies

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### Department Of Child And Family Studies

Robert P. Moreno, Chair, 315-443-1715  
426 Ostrom Ave

Faculty Colleen Baish Cameron, D. Bruce Carter, Joseph P. Fanelli, Irene Kehres, Ambika Krishnakumar, Eunjoo Jung, Teresa MacDonald, Robert P. Moreno, Matthew Mulvaney, Kamala Ramadoss, Rachel Razza, Jaipaul L. Roopnarine

#### UNDERGRADUATE

Robert P. Moreno, Undergraduate Program Director, 315-443-1715

The Department of Child and Family Studies (CFS) is involved in the scientific investigation of children and families. Students engage in multidisciplinary learning about the challenges facing families and children across social, cultural, and contextual settings. In addition, students study the factors that promote strengths and resiliency to foster healthy families and children. CFS students not only learn in the classroom, they receive first hand experience in the community as well. For example, CFS seniors are involved in a 180-hour community practicum that allows them to apply the knowledge gained in the classroom to real life settings. As a result, CFS students have a comprehensive understanding of children and families in theory and in practice.

Students in the 124 credit B.S. degree program pursue interests in one of four tracks of specialization: (a) Early Child Development, (b) Youth and Family Development, (c) Early Childhood Education (4+1), (d) Child Life Specialist. Core courses focus on child and youth development (i.e., infancy, play, interpersonal competence, human sexuality) and family development (i.e., parenting, marriage, domestic violence). CFS also offers minors in Child and Family Studies, Child and Family Policy and Mindfulness and Contemplative Studies.

CFS graduates pursue careers working with children and families in a variety of areas including early education and intervention programs, social service and mental health agencies, the juvenile justice system, youth programs, schools and parent and family services. Many students also pursue post baccalaureate degrees in fields such as social work, psychology, medicine, family law, counseling, health care, and education as well as child and family studies.

## GRADUATE

Robert P. Moreno, Graduate Program Director; 315-443-2757

A unique aspect of the Department of Child and Family Studies is the interdisciplinary training of the faculty who have advanced degrees in developmental psychology, sociology, education, and gerontology. The graduate programs (M.A., M.S., Ph.D.) integrate theory and practice from these fields to facilitate understanding of human development over the life span within and across diverse family and cultural settings. Supervised participation in early childhood education and research programs provide students with firsthand experiences in applying and integrating theory.

The department has a strong reputation for its pioneering work in infant development, parent education, child care, and parent-child relations in different cultures.

## FACILITIES

The Bernice M. Wright Child Development Laboratory School provides opportunities for research, teacher training, and community service. Founded as a model of the parent cooperative movement in early childhood education, the school includes parent involvement at the center of its mission. The school is staffed by both graduate and undergraduate students and offers a strong inclusive component that embraces the developmental and cultural perspectives of its children and families. Limited enrollment is open to both the University and local communities.

The Jack Reilly Institute for Early Childhood and Provider Education was established through a generous gift from Syracuse University alumnus John D. Reilly III '69, G'70 and his wife, Patricia M. Reilly. Adopting a multidisciplinary approach, the Institute's mission is to conduct basic and applied research and to provide training to early childhood professionals on culturally and developmentally-appropriate early childhood education practices and issues pertaining to childhood safety.

## Public Health, Food Studies And Nutrition

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### Department Of Public Health, Food Studies And Nutrition

Rick Welsh, Department Chair, 315-443-4060  
304 Lyman Hall

The Department of Public Health, Food Studies and Nutrition offers academic programs in: Child and Family Health in the Global Community, M.S.; Food Studies, B.S.; Nutrition, B.S.; Nutrition Science, B.S., M.A., M.S.; Public Health, B.S.; Addiction Studies (C.A.S.); Dietetic Internship (C.A.S.); and Global Health (C.A.S.). Students' academic programs move outside of the classroom to gain hands-on experiences in their chosen field(s) of concentration.

In 2011, to reflect faculty research and applied interests in public health, nutrition/nutrition science, and dietetics, the individual academic departments that previously housed programs in these areas were combined into a singular signature department—the Department of Public Health, Food Studies and Nutrition. Today, the faculty and students in the Department of Public Health, Food Studies and Nutrition are experiencing ever-increasing opportunities for interdisciplinary research and experiential learning locally, nationally and globally in the areas of public and community health, nutrition, and food studies, as well as other fields related to these specialties.

### Food Studies

Rick Welsh, Department Chair, 443-4060  
304 Lyman Hall

Faculty Tim Barr, Anne Bellows, Kimberly Johnson, Mary Ann P. Kiernan, Laura-Anne Minkoff-Zern, Rick Welsh, Evan Weissman

Our newest degree—the bachelor of science in food studies—helps students develop analytical skills and knowledge about links between food system

structure, dietary choices and health outcomes.

Courses cover topics like food as medicine in disease prevention and treatment, women's rights to adequate food and nutrition, and global rules for governing trade and distribution of food and agricultural products, among many others. Hands-on field learning is often linked to faculty affiliations with organizations of professional significance, such as the USDA, UN and USAID. Students encounter many diverse opportunities, such as:

- Experiential learning requirements that include a strong network of community-based partnerships and regional, national and international opportunities.
- Global gastronomy studies, including specialized study abroad programming in Florence.
- Hands-on learning in culinary labs working with professional chefs and experts in nutrition, food policy and public health.
- One-on-one interactions with faculty experts in rights-based approaches to food and nutrition, scale-appropriate technologies to support rural development, emerging food social movements, nutrition focused on pediatrics, and community education.

Increased emphasis on healthy lifestyles, disease prevention, public interest in food policy, growing and aging populations, and diet-related disease epidemics continue to spur demand for our graduates.

#### Intra-University Transfers

The Bachelor of Science in Food Studies accepts transfers into the program on a rolling admissions' basis.

Transfer applicants must schedule an interview with Dr. Rick Welsh, Food Studies Undergraduate Program Director, to review admission requirements.

Applicants outside of the David B. Falk College of Sport and Human Dynamics who are making satisfactory progress and have a cumulative grade point average of 2.3 or above will be admitted into the Food Studies program.

Applicants inside the David B. Falk College of Sport and Human Dynamics who are making satisfactory progress and have a cumulative grade point average of 2.0 or above will be admitted into the Food Studies program.

## Nutrition Science And Dietetics

Rick Welsh, Department Chair, 315-443-4060  
304 Lyman Hall

Faculty Lynn S. Brann, Kay S. Bruening, L. Beth Dixon, Tanya M. Horacek, Sudha Raj, Sarah H. Short, Jane B. Uzcategui, Margaret Voss, Jennifer Wilkins

Dietetic Program Director Nancy Rindfuss, 315-443-2386

Dietetic Internship Director Debra Z. Connolly, 315-443-2386

### UNDERGRADUATE

Kay Stearns Bruening, Undergraduate Program Director, 315-443-2386

The Nutrition Science and Dietetics program offers two major programs: nutrition/dietetics and nutrition science. Students may select one major program or choose a double-major with another program in the David B. Falk College of Sport and Human Dynamics or in another school or college. Students also have the opportunity to pursue a minor.

Dietetics is the application of the knowledge of human nutrition to support the nutritional needs of the healthy as well as the sick. The study of human nutrition encompasses biology, physiology, chemistry, and the behavioral and social sciences. Students study the changes in nutritional needs throughout the life cycle, examine the factors that influence the selection of foods, and explore ways in which diet can be modified.

Additional courses in chemistry and the biological sciences are prerequisites for many human nutrition courses, which cover basic and advanced nutrition, medical nutrition therapy, practice of dietetics, community nutrition, food science, and food service systems.

All students who complete degree requirements will be eligible for the B.S. in Nutrition. Additional requirements must be met to receive a dietetics verification statement. Dietetic verification statement requirements are posted on the departmental website in the program handbook.

Nutrition Science emphasizes the biological and physical sciences. In addition to food science, nutrition in health, medical nutrition therapy, and advanced nutrition, studies include work in general and organic chemistry, biology, physiology, and biochemistry. In nutrition science, students prepare to pursue post-graduate work in medicine, dentistry, education, or health care or work for major food or pharmaceutical companies.

### GRADUATE

Sudha Raj, Graduate Program Director, 315-443-5573

Graduate students in the Nutrition Science program acquire a balanced background in the theory and application of the science of nutrition. Specialization is desirable and is achieved by appropriate course selection, readings, independent study, field experience, and research projects. Faculty members have

expertise in clinical nutrition, community nutrition, nutrition for growth and development, nutrition education, nutrition science, and food service management.

The department is affiliated with a number of local hospitals, clinics, and community agencies that provide special learning and research experiences for students according to their background and interests.

## Public Health

Rick Welsh, Department Chair, 315-443-4060  
304 Lyman Hall

Faculty Dessa Bergen-Cico, James Byrne, Luvenia W. Cowart, Brooks Gump, Sandra D. Lane, Eileen Lantier, David Larsen, Katherine McDonald, Mary Ann Middlemiss, Lutchmie Narine, Lisa Olson-Gugerty, Maureen Thompson,

### Undergraduate Program

Maureen Thompson, Undergraduate Program Director, 315-443-9815, mlthomps@syr.edu

The Public Health program offers a 123-credit hour Bachelor of Science degree (B.S.) in public health. Our graduates are prepared to work in community health education and health promotion in public health agencies, as well as in newly emerging preventive health services in corporate wellness centers, college health services, insurance agencies, or pharmaceutical companies. Many also plan for graduate education in public health, health-related social sciences (medical anthropology, medical sociology, or health psychology), law, and the health professions (medicine, nursing, physician assistance, pharmacy, or dentistry).

The public health program includes a 46 credit liberal arts core, a 45 credit public health core, and a 32 credit elective requirement. The public health core includes key public health concepts such as environmental health, epidemiology, health systems administration, and social & behavioral determinants of health as well as those specific to community health education, a sub-field within public health. The generous number of electives facilitates the completion of minor(s) or a second major. In addition, the flexibility of the program enables students to study abroad.

Students frequently move outside the classroom to gain hands-on experience in initiatives to improve the health of individuals, families, and communities. Each student completes a 9-credit internship and capstone project during their senior year.

### Graduate Program

Brooks Gump, Graduate Program Director, 315-443-2208, bbgump@syr.edu

The Public Health program offers advanced certificates in Addictions Studies and Global Health, and a master of science in Child and Family Health in the Global Community.

The 24 credit hour Certificate of Advanced Studies (CAS) in Addiction Studies is available only to Syracuse University students dually enrolled in a master's degree-granting program. Only Internal applicants will be accepted. The CAS in Addiction Studies provides an intensive concentration of coursework on the biology, psychology and cross-cultural sociology of addictions as a supplement to a graduate program of study. The academic program is designed to support graduate study in fields such as anthropology, child and family studies, counseling, couples and family therapy, education, law, nutrition, psychology, public health, public policy, sociology, and social work, among others. Students are exposed to broad perspectives in the addictions field through the core curriculum, and may subsequently apply their courses toward their professional fields to expand employment and placement opportunities. Courses include an optional study abroad component in Amsterdam.

The Certificate of Advanced Studies (CAS) in Global Health is a 19-credit hour graduate program providing students applied skills in global health policy and practice. The program emphasizes the integration of social and behavioral determinants of health combined with practice and evidence-based strategies for developing, implementing, and evaluating programs and policies in global settings.

The 36 credit graduate program in Child and Family Health in the Global Community offers students an in-depth and comprehensive understanding of the factors influencing the health and well-being of children and families in the context of the global community. The program examines a broad spectrum of factors, including infectious and chronic diseases, genetics and disabilities that require families to interface with medical care providers, service agencies, and policy decision makers in their communities. The program incorporates the study of cultural health norms and practices, barriers and facilitators of family-health practitioner relations and how children define and interpret their symptoms, how they feel about themselves, and how they respond to treatment. The program also integrates the study of historical experiences of ethnic groups (e.g., racial prejudice) and their culturally determined patterns of dealing with issues of health and illness.

The department also participates with Upstate Medical University in a Masters of Public Health Degree.

## School Of Social Work

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### School Of Social Work

Carrie Jefferson Smith, Director, 315-443-5562

Sims Hall

Faculty Keith A. Alford, Maria Brown, Kendra DeLoach, Paul Caldwell, Kenneth N. Corvo, Ellen deLara, Alejandro Garcia, Pamela Johnson, Eric Kingson, Karen E. Kirkhart, Tracey Musarra Marchese, Deborah J. Monahan, Nancy R. Mudrick, Merril Silverstein, Carrie Jefferson Smith, Yvonne Smith, Matthew Spitzmueller, Bette Brown Thoreck

Director of Field Instruction Deborah Ducett, 315-443-5586, Sims Hall

## UNDERGRADUATE

Bette Brown Thoreck, Baccalaureate Program Director, 315-443-9723

The undergraduate professional social work program offers a bachelor of science degree. The goals of this program, in order of priority, are as follows:

1. To prepare undergraduate students for competent and effective generalist professional practice by developing the requisite social work knowledge, values, and skills, and
2. To prepare undergraduate students for continuing professional education and/or graduate education.

The social work program is based on the concept of ecological systems, which maintains that the fundamental focus of social work practice is on the transactions of people and their environments, and on the constant state of reciprocity in which each shapes the other. Social work intervention aims to promote the progressive forces and minimize the regressive forces in those transactions. The curriculum incorporates instruction in five professional foundation areas: social welfare policy and services, human behavior in the social environment, research, social work practice, and field practicum. Instruction in these areas builds upon a carefully chosen and strong liberal arts preparation in the humanities, the social and behavioral sciences, and the natural sciences taken within the College of Arts and Sciences.

The program is accredited by the Council on Social Work Education.

## GRADUATE

Contact Carrie J. Smith, MSW Program Director, 315-443-5562.

The School of Social Work educates practitioners grounded in social work values and evidence-informed practice to foster strengths and to respond to human service needs of local, state, national and global communities. We accomplish this in collaboration with the practice community through teaching, research, scholarship, and service aimed at achieving social and economic justice in a diverse society.

The school offers two graduate programs leading to the master of social work (M.S.W.) degree. The first is a two-year M.S.W. program. The second is an advanced standing program, open only to students who hold a bachelor's degree in social work from a program accredited by the Council on Social Work Education. Both graduate programs prepare students for advanced social work practice and leadership. The graduate program is accredited by the Council on Social Work Education.

The social work program is based on the concept of ecological systems. This concept maintains that the fundamental focus of social work practice is on the transactions of people and their environments and the constant state of reciprocity in which each shapes the other. Social work intervention aims to promote the progressive forces and minimize the regressive forces in those transactions.

More than 200 social welfare and health agencies in Central New York provide graduate field instruction opportunities. Graduate students in the two-year degree program must complete 1000 hours of field experience concurrent with their academic work, thereby integrating classroom and field learning.

### Dual **M.S.W./M.A. program in Social Work and Marriage and Family Therapy**

The interdisciplinary program allows students to complete degrees in two distinct professions, the Master of Social Work (MSW) and the Master of Arts in Marriage and Family Therapy (MFT) in three years. The dual degree exposes students to the philosophical and legal distinctions of both degrees, creates a unique opportunity for MSW students to deepen their clinical training with couples and families, and introduces MFT students to a broader range of social work and social welfare course offerings, as well as the art of clinical diagnosis which is in the scope of practice of the Social Work profession.

The dual degree is offered as both a 96-credit, three –year program (for students not admitted to the Advance Standing MSW program), or a 78-credit two-year program (for students admitted to the MSW Advance Standing program).

The program extends the advanced clinical preparation of the MSW to include an additional year of intensive MFT clinical supervision. It combines the MSW ability to work with systems of all sizes with the more singular focus on families by MFT.

### Joint Juris Doctor (J.D. and Master of Social Work (M.S.W.))

The Juris Doctor/Master of Social Work is a joint degree which may be conferred by the College of Law and the Syracuse University School of Social Work. Students enrolled in these programs may obtain their J.D. and M.S.W. in substantially less time than would be necessary if both programs were separately pursued. Candidates for admission to the joint degree program must first gain admission to each participating academic unit. Applicants for one of the joint Law/Social Work programs must file a petition requesting admission to the joint degree program with the College of Law Interdisciplinary Programs Committee. Interested students should contact the College of Law Advisor, who will assist in the preparation of the petition. The petition must state the proposed program's objective and include a comprehensive plan of proposed study. A Social Work faculty advisor will provide guidance to meet the requirements for the M.S.W.

The regular M.S.W. can be completed in conjunction with the J.D. in 3 years of full-time study with a total of 120 credit hours (72 Law and 48 Social Work). Persons with an accredited BSSW are eligible for the Advanced Standing program in social work (72 Law and 30 Social Work).

## ADMISSION

Students in the two-year M.S.W. program begin full-time study only in the fall semester. Advanced standing students begin study in the second summer session. The awarding of the degree requires a minimum cumulative GPA of 3.0 in all courses required for the degree. All degree requirements must have been completed within seven years prior to the date of the degree award.

Matriculated students who voluntarily interrupt graduate study for more than one academic year and wish to be re-admitted will be evaluated by the MSW Program and Field Office directors. Required reevaluation criteria vary according to individual circumstances. The re-admission process is initiated by a letter to the director of the MSW program in the School of Social Work, outlining circumstances of interruption and plans for completion of graduate study.

## TRANSFER CREDIT

Graduate credit earned in another accredited graduate school and carrying a grade of B or higher may be transferred toward the M.S.W. degree, so long as it forms an integral part of the degree program and is approved by the School of Social Work. A maximum of 12 credits from other graduate study may be transferred toward the 60-credit M.S.W. degree requirement. Academic credit is not given for life experience or previous work experience. Advanced standing M.S.W. students may not transfer credits from another college or university.

Decisions regarding credit transfer are made independent of admissions decisions. Matriculation as a transfer student in the School of Social Work requires completion of the formal admissions process.

## PART-TIME STUDY

Students unable to enroll full time may complete the program through part-time study. Several options are available. Evening, daytime, and summer courses are offered. Several courses may also be available in one week intensive “minimester” formats.

## FINANCIAL AID

A limited number of Syracuse University scholarships and fellowships are available to both first- and second-year graduate students on the basis of need and merit. All financial aid decisions are made independent of and subsequent to decisions on admission.

# Sport Management

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## Sport Management

Michael D. Veley, Director and Chair, 315-443-2630  
810 Nottingham Road

Faculty: Rick Burton, Dennis Deninger, Mary Graham, Chad McEvoy, Rodney Paul, Gina Pauline, Jeff Pauline, Patrick T. Ryan, Michael D. Veley, Patrick T. Walsh, John Wolohan

Internship Coordinators: Jenna La Manna-Johnson, Jaime Grillo

## UNDERGRADUATE

Gina Pauline, Director Undergraduate Program, 315-443-2630

The academically rigorous Sport Management curriculum combines department-specific courses with professional electives and liberal arts requirements, providing students with the tools to pursue a career in sport management or graduate study. Coursework covers such areas as business, marketing, management, communications, societal influences and impacts, event planning, and law. The 124-credit program allows students to pursue specializations or minors and tailor their studies according to their professional interests. The required 12-credit capstone provides students with valuable industry experience.

## Sport Management Intra-University Transfer Information

In order to complete an intra-university transfer into the Department of Sport Management, a student must meet the following criteria:

1. a minimum overall GPA of 3.5;
2. complete the SPM degree requirements within a four-year plan of study, students must have a minimum of five remaining semesters of study;
3. complete a minimum of 24 credit hours at Syracuse University;
4. have completed SPM 205, or be enrolled in the course when applying;
5. complete and submit an SPM intra-university transfer application
6. submit a current resume
7. submit a two-to-three page type-written essay explaining:

- a. their academic interest in sport management;
- b. desired career track (i.e. marketing, legal studies, communications, business management, etc);
- c. prior sport industry experience;
- d. sport-related volunteer and/or community service work;
- e. internship experience

A personal interview with the SPM transfer committee may be arranged by the department after the IUT application deadline. Students who meet the criteria listed above will only be accepted into the Sport Management program on a space available basis, based on current program enrollment.

Deadlines for applying for an Intra-University Transfer are November 1<sup>st</sup> for spring admission and March 1<sup>st</sup> for fall admission.

The application is available on the SPM website.

## GRADUATE

Chad McEvoy, Graduate Program Director, 315-443-2630

The Master of Science in Sport Venue and Event Management is a 36-credit hour graduate program designed to provide students with the educational knowledge, skill development and experiential sport industry background to excel in the specialized field of managing multi-purpose sport and entertainment venues and associated event planning opportunities. Instruction centers around core curriculum content areas, including: sport finance, accounting and budgeting; sport event and hospitality management; organizational theory; sport law and legal operations management; technology and information delivery systems; facilities and venue management; communications; and event planning operations and management. The goal is to prepare graduates to think conceptually and analytically and be able to apply principles to a real-world scenario.

The program includes faculty from the Department of Sport Management, School of Information Studies, S.I. Newhouse School of Public Communications, and the Martin J. Whitman School of Management at Syracuse University. The program housed in the Department of Sport Management in the David B. Falk College of Sport and Human Dynamics is an interdisciplinary, collaborative initiative unique among graduate level sport management programs.

The degree prepares students for careers in managerial aspects of professional and recreational sports, including stadium and arena facilities management; event management and planning production and programming of events; marketing and public relations; technological operations management; and middle-level management, marketing and planning in the sport industry.

### Admission

The admissions requirements for this program include:

- undergraduate degree with a minimum cumulative 3.0 GPA
- TOEFL scores (for international applications)
- undergraduate transcripts
- three letters of recommendation
- a resume and personal statement
- GRE scores are required
- video interview

### Financial Aid

A limited number of Syracuse University scholarships and fellowships are available based on need and merit. All financial aid decisions are made independent of and subsequent to decisions on admission.

### Graduate Courses in Sport Venue and Event Management

- SPM 614 —Foundations of Sport Venue and Event Management
- SPM 624—Sport Facilities Management
- SPM 634—Sport Event and Hospitality Management
- SPM 635—Marketing of Sport Venues and Events
- SPM 645—The Strategic Management of People in Sport
- SPM 664—Financial Management of Sport Facilities & Events
- SPM 665—Advanced Sport Event Management
- SPM 670—Experience Credit

Master's students will select electives from the iSchool, Newhouse School and the Whitman School spanning numerous topics including (but not limited to) digital advertising, media law, new media business, operations management, social media in the enterprise, marketing, and supply chain management.

## Academic Offerings

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## Addiction Studies Minor

Contact Maureen Thompson, 315-443-9815, mlthomps@syr.edu

The 19-21 credit minor in Addiction Studies prepares students for employment in addiction prevention programs and services. Upon completion of the minor, students will have: met the New York State Office of Alcoholism and Substance Abuse Services (OASAS) education training requirements for initial certification as a Credentialed Prevention Professional (CPP) and Credentialed Prevention Specialist (CPS); and be eligible to sit for the CPP/CPS certification exam. Full certification as a CPP or CPS requires 1 - 2 years of supervised post-graduate work experience before full certification is awarded by OASAS.

The minor in Addiction Studies is open to all Syracuse University students with a GPA of 2.5 or above, including those within the public health major.

### Addiction Studies Minor REQUIREMENTS (19-21 Credits)

#### Required Courses

HTW 318 Dynamics of Addiction (3 cr)

HTW 436 Ethics in the Addiction Services (3 cr)

#### Choose 1 of the following

HTW 408 Addictions and Treatment in Cultural Context (3 cr)

HTW 412 Drug Policy in Global Perspectives (3 cr)

#### Choose 1 of the following options:

HTW 321 Prevention in Addiction Services (4 cr)

HTW 304 Community Health Education (3 cr) AND HTW 402 Implementing & Evaluating Health Programs (3 cr)

#### Elective Courses (choose 2)

HTW 405 Cognitive-Behavioral Approaches to Stress Reduction (3 cr)

HTW 406 Clinical Evaluation & Assessment of Addictions (3 cr)

HTW 407 Motivational Interviewing for Behavioral Change (3 cr)

HTW 409 Impact of Addictions on Families & Relationships (3 cr)

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## Child And Family Policy Minor

The Child and Family Policy Studies minor is an interdisciplinary minor that gives students an opportunity to study public policy and child and family issues. Students apply their understanding of healthy development to public policies and government programming. This minor requires a completion of 18 credits. To be admitted to the program, students must submit a Declaration of Minor form to their academic advisor, the minor coordinator and their home college dean's office.

#### Required core courses (12 credits)

PAF 101 An Introduction to the Analysis of Public Policy 3

CFS 201 Family Development or

CFS 202 Development of Children and Youth 3

MAX 201 Quantitative Methods in the Social Sciences 3

CFS 433 Child Practicum or

CFS 493 Family Practicum or

PAF 410 Practicum in Public Policy 3

Plus one elective course to be chosen from the following (3 credits)

CFS 335 Issues and Perspectives in Early Childhood Education

(Prereq: CFS 202) 3

CFS 395 Seminar: Family and Interventions 3

CFS 479 Power, Conflict, Violence, and the Family 3

Plus one elective course to be chosen from the following (3 credits)

PAF 410 Practicum in Public Policy

Topic: Non-Profit & Gov Agency Pract.

Topic: Education Policy

Topic: Grant Writing

Topic: Intro to Web Design

Topic: Data Management of Public Pol

## Child And Family Studies

The 124 credit B.S. degree program in child and family studies provides students with a broad foundation covering a range of issues focusing on the healthy development of children and families. In addition to liberal arts courses, students are expected to complete 15 credits of Program Requirements and 18-24 credits in a specialty track (decided on in the second semester of the sophomore year). Each track prepares students to work in specific settings:

- Early Child Development students focus on child care and pre-school settings in the early intervention field.
- Youth and Family Development students learn to work in a variety of settings that focus on youth and family needs including social services, health, mental health and juvenile justice programs, counseling centers, parenting programs, recreation and athletic programs, afterschool programs and schools.
- Early Childhood Education (4+1) prepares students for careers as early childhood educators. Students have the opportunity to pursue a master's degree in early childhood special education (ECSE) on year after completing an undergraduate degree in CFS. Students enrolled in this degree program will receive a 30 percent reduction for their one year of graduate tuition.
- Child Life Specialist prepares students to help children and their families overcome life's most challenging events. Providing emotional support for families, Child Life Specialists encourage optimum development children facing a broad range of challenges particularly those related to healthcare and hospitalization.

Students seeking to transfer into CFS should contact the Director of Undergraduate Studies.

College Requirements (1 credit)  
HSH 101 First-Year Gateway (1 credit)

Communication Skills  
WRT 105 Studio 1: Practices of Academic Writing (3 credits)  
WRT 205 Studio 2: Critical Research and Writing (3 credits)  
CFS 255 Interpersonal Competence or  
CRS 331 Interpersonal Communication (3 credits)

Quantitative Skills  
Statistics and/or Calculus (6-8 credits)

Natural Science and Mathematics  
NSD 225 Nutrition in Health (3 credits)  
Additional natural science and mathematics (9-12 credits)

Social Sciences  
PSY 205 Foundations of Human Behavior (3 credits)  
SOC 248 Ethnic Inequalities and Intergroup Relations or  
SWK 328 Human Diversity in Social Contexts (3 credits)  
Additional Social Sciences (6 credits)

Humanities  
PHI 191 Ethics and Value Theory (3 credits)  
Additional humanities (9 credits)

Program Requirements (15 credits)  
CFS 201 Family Development (3 credits)  
CFS 202 Development of Children and Youth (3 credits)  
CFS 204 Applied Research Methods in CFS (3 credits)  
CFS 363 Introduction to Gerontology (3 credits)  
CFS 367 Child and Family in Cross-Cultural Perspectives (3 credits) or  
CFS 371 Latino Families and Children in the United States (3 credits)

In the second semester of the sophomore year, students must choose one of the following specialized tracks:

Early Child Development (18 credits)  
Required Courses  
CFS 331 Play, Childhood Development and Early Education (3 credits)  
CFS 335 Issues and Perspectives in Early Childhood Education (3 credits)  
CFS 432 Foundations and Principles of Early Childhood Education (3 credits)  
CFS 433 Child Practicum (3 credits)

Plus 2 other CFS courses at the 300 level or above  
(500 level courses may be taken as electives)

Youth and Family Development (18 credits)

Required Courses

CFS 493 Youth & Family Practicum 1 (3 credits)

CFS 494 Youth & Family Practicum 2 (3 credits)

Choose 2 courses from the list below:

CFS 388 Human Sexuality (3 credits)

CFS 448 The Contemporary American Family and Community (3 credits)

CFS 479 Power, Conflict, Violence in the Family (3 credits)

Plus 2 other CFS courses at the 300 level or above

(500 level courses may be taken as electives)

Child Life Specialist (24 credits)

Required Courses

CFS 325 Children and Family in Healthcare Settings (3 credits)

CFS 331 Play, Child Development and Early Education (3 credits)

CFS 423 Death, Dying & Loss Child and Family Perspectives (3 credits)

CFS 432 Foundations and Principles of Early Childhood Education (3 credits)

CFS 433 Child Practicum (3 credits)

Plus 3 other CFS courses from the list below

CFS 345 The Developing Infant (3 credits)

CFS 365 Language Development in Children and Families (3 credits)

CFS 395 Seminar: Family and Child Intervention (3 credits)

CFS 447 Principles and Practices in Parenting (3 credits)

Electives to Reach 124 Degree Applicable Credits

#### EARLY CHILDHOOD EDUCATION MASTER'S DEGREE

Students who wish to be certified as early childhood educators have the opportunity to pursue a master's degree in early childhood special education (ECSE) in a reduced period of time (one academic year and two summers). After completing the child and family studies degree, qualified students may apply for graduate study in the School of Education at Syracuse University. Students enrolled in this degree program will receive a 30 percent reduction in their graduate tuition. Students desiring to pursue this option should complete the child development specialization, including CFS 367, and complete these specific liberal arts requirements beyond those listed for the major:

- a one-year sequence (two courses) of college-level mathematics (may also fulfill the math/foreign language requirement in the liberal arts core);
- two sciences with laboratories (physical sciences recommended);
- at least one class in history (which may count toward fulfilling liberal arts core requirements in the social sciences or humanities, depending on the course); and
- an art history course (e.g. an FIA course that would also meet a humanities requirement).

The Early Childhood Special Education (ECSE) graduate program requires that undergraduate writing, mathematics, and laboratory sciences courses have grades averaging no less than a B- with no grade below a C. Students are required to demonstrate competency in a foreign language either by successfully completing the first year of college study in a language (e.g. SPA 101 at Syracuse University) or by providing official documentation of successful completion of Level III of foreign language in high school. Interested undergraduate students should contact the School of Education about taking EDU 303 to further reduce the number of graduate credits required for the degree.

Interested students should work closely with their academic advisors to meet these requirements.

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## Child And Family Studies Minor

Students pursuing programs in other areas of study may choose a minor in child and family studies. The minor program requires the completion of 18 credits. To be admitted to the program students must submit a declaration of minor form to the department.

Required core courses

CFS 201 Family Development (3 credits)

CFS 202 Development of Children and Youth (3 credits)

CFS 363 Introduction to Gerontology (3 credits)

CFS 367 Child and Family in Cross-Cultural Perspectives (3 credits) or

CFS 371 Latino Families and Children in the United States (3 credits)

Plus two non-practicum CFS courses at the 300- or 400-level or above

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## Food Studies

Bachelor of Science in Food Studies

Rick Welsh, Undergraduate Program Director, 443-4060

Faculty:

Tim Barr, Anne Bellows, Kimberly Johnson, Mary Kiernan, Laura-Anne Minkoff-Zern, Evan Weissman, Rick Welsh

Description:

The Food Studies program takes a multi-level and holistic approach to food, from production through consumption. Beyond a core, the curriculum offers two concentrations: 1) Food Politics and Governance; and, 2) Community Food Systems and Gastronomy. The major provides excellent preparation for further graduate studies in social science and legal and policy approaches to food. Also, students with this major might seek employment with government agencies at all levels dealing with food and agriculture issues; food oriented non-governmental organizations that work on sustainability and food security issues; as well as work with food processing, preparation and distribution firms.

Requirements:

The 120 credit major includes five (5) areas of study: Falk College requirements, a liberal arts core, a food studies core, a food studies area of concentration, and electives. The major concludes with a senior level culminating experience. For this requirement, students choose to complete a research project (FST 485) or a practicum experience (FST 486). A minimum of 60 credits of liberal arts coursework is required. The liberal arts core courses, liberal arts elective courses, and writing intensive course are selected from the Syracuse University Liberal Arts Core Guidebook. The liberal arts core is left open purposefully, to allow students to sample broadly from the Arts & Science offerings. Such a liberal approach is appropriate for Food Studies since it has emerged as a multidisciplinary field.

The credit distribution and requirements are outlined as follows:

Falk College Requirement: 13 credits

HSH 101 First Gateway (1)

Four additional courses, selected from any department within the Falk College (12)

Liberal Arts Core: 45-48 credits

Writing Requirement (6 credits)

WRT 105 Studio 1: Practices of Academic Writing

WRT 205 Studio 2: Critical Research and Writing

Quantitative Skills: 3 – 4 credits

MAT 121 Probability & Statistics for the Liberal Arts I (4) OR MAT 221 Elementary Probability & Statistics I (3)

Natural Sciences: 12-15 credits

to include, NSD 225 Nutrition & Health (3)

Social Sciences: 12 credits

Humanities: 12 credits

Food Studies Core: 21 credits

FST 102 Food Fights: Contemporary Food Issues (3)

NSD 115 Food Science 1 (3)

FST 202 Agroecology (3)

FST 403 The Human Right to Adequate Food and Nutrition (3)

FST 421 Morality of a Meal: Food Ethics (3)

NSD 457 Research and Evaluation in Nutrition (3)

FST 485 Research Experience in Food Studies (3) OR FST 486 Food Studies Practicum (3)

Food Studies Concentrations: (14-16 credits), students choose 1 concentration

Community Food Systems & Gastronomy (Any 5 courses)

NSD 114 Food Safety & Quality Assurance (2)

NSD 275 Food Service Systems (3)

FST 304 Farm to Fork (4)

FST 402 Feeding the City: Urban Food Systems (3)

FST 406 Philosophy & Practice of Locavorism (3)  
NSD 452 Mediterranean Food and Culture: A Florence Experience (3)  
NSD 455 Community Nutrition (3)

Food Politics & Governance (Any 5 courses)  
FST 303 Food Movements (3)  
FST 306 Food Cooperatives (3)  
FST 307 Feeding the World: Global Agri-food Governance (3)  
FST 402 Feeding the City: Urban Food Systems (3)  
FST 423 Food in History (3)  
NSD 555 Food, Culture and Environment (3)

Electives: to meet 120 degree requirement, 22- 27 credits. To include sufficient credits of liberal arts coursework to = 60 credits LA total

Total Credits: 120

Degree Awarded: Bachelor of Science in Food Studies

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## Food Studies Minor

Minor in Food Studies

Coordinator:

Evan Weissman, Food Studies minor coordinator, 443-4295

Description:

The Food Studies minor is an interdisciplinary approach to examine the U.S. and global food systems from production through consumption using a multi-level and holistic approach. Students take courses covering production, consumption and policy aspects of food as well as food security. The Food Studies minor is a valuable complement to a variety of majors because of the growing interest in food systems in academia and in the general public. Issues around organic production, the local food movement, genetic modification of food and nanotechnology, and food access in the U.S. and elsewhere are all covered in the minor and have potential applications in the natural sciences, business, public policy, communications and media, and the social sciences.

Admission:

To be admitted to the program, students must submit a Declaration of Minor form to their academic advisor, the minor coordinator and their home college dean's office.

Curriculum Requirements:

The program leading to a minor in Food Studies requires the completion of six courses (18-19 credits), two of which are mandatory and four of which are electives. Students should work closely with their major advisor and the Food Studies minor coordinator to ensure they are meeting the necessary requirements for both programs.

Minors must take the following TWO lower-division courses:

FST 102 Food Fights: Contemporary Food Issues  
FST 202 Agroecology

Minors must take FOUR of the following courses:

FST 303 Food Movements (3)  
FST 304 Farm to Fork (4)  
FST 306 Food Cooperatives (3)  
FST 307 Feeding the World: Global Agri-food Governance (3)  
FST 402 Feeding the City: Urban Food Systems (3)  
FST 403 The Human Right to Adequate Food and Nutrition (3)  
FST 406 Philosophy & Practice of Locavorism (3)  
FST 421 Morality of a Meal: Food Ethics (3)  
FST 423 Food in History (3)  
NSD 452 Mediterranean Food and Culture (3)  
NSD 555 Food, Culture and Environment (3)

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## Health And Wellness Minor

The 18 credit Minor in Health and Wellness is available to all University students with a Cum GPA of 2.5 or above and addresses personal behaviors, environmental factors and social conditions that affect the quality of personal and public health. It is intended to increase the capacity of the individual to adopt health-benefiting behaviors and lifestyles.

The minor requires completion of 18 credits, including 12 credits above the 300 level. To be admitted into the minor, a student must submit a Declaration of Minor form to his or her faculty advisor, the Health and Wellness Minor coordinator, and the Dean's office in his or her home college.

For more information, or to obtain a form to declare the Minor in Health and Wellness, contact the minor coordinator, Dr. Maureen Thompson (mlthomps@syr.edu).

Please note: students who pursue a minor in health and wellness may not pursue a minor in public health or a minor in addiction studies. Public health majors may not pursue a Health and Wellness minor.

#### Required Core Courses

- HTW 121 Personal and Social Wellness
- HTW 221 Health Promotion Across the Lifespan

Plus Four additional courses chosen from HTW courses number 300 or above.

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## Inclusive Early Childhood Special Education

Contact: Mara Sapon-Shevin, 136 Huntington Hall, 315-443-2685 , saponsh@syr.edu

This B.S. degree program is a dual program between the School of Education and the David B. Falk College of Sport and Human Dynamics — with the School of Education as the home school. This program provides you with the professional background and a solid core of liberal arts distribution and concentration coursework. A cornerstone of the program is the extensive and varied series of field experiences it offers, coordinating coursework with fieldwork in the schools as early as the first year of study. Many schools and childcare centers in the Syracuse area are at the forefront of inclusive education. Through our close partnerships with local schools and early childhood centers that welcome all students, and with our wide network of urban, suburban, and rural school affiliations, we provide a broad range of opportunities for getting the most out of field experiences.

#### PROGRAM REQUIREMENTS

Program requirements include liberal arts skills, a concentration in social/behavioral science with emphasis on child and family studies, and professional coursework. The program typically requires a minimum of 135 credits. The length varies and can be more than 138 credits, depending on the student's mathematics and foreign language background, and other choices made by the student. In most cases, students enroll for more than 15 credits in a semester and/or take summer courses (at SU or other colleges) to complete the degree within four years. Therefore, prospective students not already enrolled in the School of Education are encouraged to consult with the School of Education as early as possible.

Note: Because of the professional education sequence, the study abroad semester for students completing in four years must be spring of the junior year.

#### Liberal Arts Requirements:

- WRT 105 or WRT 109, and (3 credits)
- WRT 205 or WRT 209 (3 credits)
- Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or passing level three of high school study
- Algebra competency or MAT 112 (0-3 credits)
- MAT 117 and MAT 118 (6 credits)
- SCI 104 and SCI 105 (6 credits)
- U.S. History (3 credits)
- History II (diversity within the U.S. or Global History) (3 credits)
- Geography (3 credits)
- Citizenship, Economics, and Government (3 credits)
- Global Perspectives (3 credits)
- Literature (6 credits)
- Other liberal arts breadth (3 credits) Choose one course from the program's list of approved fine arts, philosophy, religion, mathematics or scientific perspectives courses.

#### Child and Family Studies/Social Science Concentration:

- CFS 201 Family Development
- CFS 202 Development of Children and Youth (3 credits)
- CFS 331 Play, Development and Early Education (3 credits)
- CFS 345 The Developing Infant (3 credits)
- CFS 395 Seminar: Family and Child Intervention (3 credits)
- CFS 367 Child and Family in Cross-Cultural Perspectives OR CFS 371 Latino Families and Children (3 credits)
- CFS 447 Principles and Practices in Parenting or CFS 479 Power, Conflict, Violence and the Family or CFS 487 Critical Issues in Family Development (3 credits)
- Social sciences: Three social science courses used to meet distribution requirements above. At least one must be 300 level (9 credits)

## Professional Education Requirements:

- EDU 203 Introduction to Inclusive Schooling (3 credits)
- EDU 201 Practicum in Pre-K Inclusive Education (1 credit)
- SPE 311 Perspectives on Disabilities (3 credits)
- IDE 201 Integrating Technology into Instruction I (1 credit)
- CFS 432 Foundations and Principles of Early Childhood Education (3 credits)
- CFS 335 Issues and Perspectives in Early Childhood Education (3 credits)
- CSD 303 Communication in the Classroom (3 credits)

## Arts in Education (complete 2 credits)

- EDU 431 Art in the Classroom 1 (1 credit)
- EDU 432 Music in the Classroom 1 (1 credit)
- EDU 433 Speech and Drama in the Classroom 1 (1 credit)

## ASSESSMENT

Both this program and the teaching profession are demanding, requiring not only appropriate attitudes about children, and skills in working with them, but also knowledge of the content to be taught, excellent writing skills, critical thinking skills, and much more. Students' progress is reviewed several times through the program against specific proficiencies and other assessment criteria. Effective for those entering the program Fall 2014 or later, to be eligible for Block I, students must have a 3.0 cumulative GPA a 3.0 average for and no grade below a B- in EDU 203, EDU 201, SPE 311, and CFS 432 (if taken before Block I); a B- or better grade in each writing course taken; and a B- or better average with no grade below a C in both the two required mathematics courses and the two required natural science courses, with at least one B- grade in each before entering Block I. In addition, they must have satisfactory ratings on the proficiencies and dispositions that are part of the professional courses and field experiences. Reviews also take place to determine eligibility to enter subsequent professional blocks, and additional information about this is available from the program faculty teaching in the blocks.

## Block I

- EED 314 Teaching Strategies for Inclusive Education (3 credits)
- EED 325 Primary Grade Literacy Methods and Curriculum (3 credits)
- EED 361 Block I Field Experience and Seminar (3 credits)

## Block II

- EED 323 Primary Grade Math Methods and Curriculum (3 credits)
- EED 328 Block II Field Experience (3 credits)
- EED 336 Elementary Social Studies Methods and Curriculum (3 credits)
- EED 362 Block II Field Seminar (1 credit)
- SPE 324 Differentiation for Inclusive Education (3 credits)
- EDU 434 Creative Movement for the Classroom (1 credit)
- IDE 301 Integrating Technology into Instruction II (1 credit)

## Early Childhood Block III

- EED 400 Early Childhood Integrated Methods I (3 credits)
- EED 400 Early Childhood Integrated Methods II (3 credits)
- EED 400 Early Childhood Block III Field Experience (3 credits)
- IDE 401 Integrating Technology into Instruction III (1 credit)

## Student Teaching

- EED 464 Seminar/Student Teaching/Inclusive Education (3 credits)
- EDU 508 Student Teaching/Inclusive Early Childhood Special Education (12 credits)
- SPE 434 Collaborative Teaching for Inclusive Education (3 credits)

Also required: Safe and Healthy Learning Environments (1 credit), or equivalent, which includes the following topics: Identifying/reporting child abuse, violence prevention, child abduction prevention, highway/general safety, alcohol/drug/tobacco prevention, fire and arson prevention, and training related to the Dignity for All Students (DASA) Act.

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## Interdisciplinary Minor In Gerontology

The interdisciplinary minor in gerontology provides an opportunity for students to focus academic work on the older population. It requires the completion of 18 credits, 12 of them above the 300 level. To be admitted to the program, students submit a Declaration of Minor form to their faculty advisor, the gerontology minor coordinator, and their home college dean's office.

### Required core courses (3 credits each)

- CFS 363 Introduction to Gerontology OR
- SWK 357 Process of Aging

### Plus one of the following core courses (3 credits each)

- SOC/WGS 364 Aging and Society OR

Choice of two additional courses from the following age-related course electives (at least 6 credits)

NSD 342 Nutrition in the Life Span  
ECN 410 Topics in Economic Applications - Health Economics  
HTW 221 Health Promotion Across the Life Span  
PPE 514 Exercise and Aging  
PSY 437 Cognition and Aging  
REL 551/PHI 550 Ethics and Health Professions  
SOC 355/WGS 355 Sociology of Health and Illness  
SOC 421 Population Issues

Choice of two additional courses from the following age-related course electives (at least 6 credits)

ANT/WGS 363 Anthropology of Family Life  
CFS 201 Family Development  
CFS 487 Critical Incidents in Family Development  
HTW 307 Culturally Competent Health Care  
HTW 309 Health Problems of Vulnerable Populations  
HTW 311 Health Literacy  
HTW 403 Community-based Health Policy & Research  
NSD 225 Nutrition in Health  
PSY 382 Health Psychology  
SOC/WGS 281 Sociology of Families

Note: Students who wish to substitute other courses with comparable gerontological content as alternatives for the required courses may do so by submitting a petition to the coordinator of the gerontology minor, Bette Brown Thoreck. Also, students may petition to substitute experience credit in the student's program of study, e.g. CFS 470. To ensure adequate gerontological content, the experience credit petition must be reviewed by the coordinator of the gerontology minor.

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## Mindfulness And Contemplative Studies Minor

### Mindfulness and Contemplative Studies Minor

#### Coordinator:

Rachel A. Razza, Assistant Professor of Child and Family Studies,  
426 Ostrom Ave. Room 308, 443-7377, rrazza@syr.edu

#### Description:

Mindfulness and contemplative practice are experiential modes of learning and self-inquiry. Contemplative practices are widely varied and include various forms of meditation, focused thought, writing, creative/ performing arts, and yoga. Mindfulness and contemplative practices can foster greater empathy and communication skills, improve focus and attention, reduce stress, and enhance creativity and general wellbeing. Given these advantages, these skills are of growing interest to researchers and practitioners from diverse fields. The purpose of this minor is to provide students with a fundamental understanding of mindfulness and contemplative study and practice, and opportunities to cultivate these skills in their courses and apply them in their communities. There is a particular emphasis on the role of mindfulness in children and youth, as these practices contribute to an individual's growth across multiple developmental domains. This minor would be of interest to students in the Child Life Specialist track in Child and Family Studies, as well as to those in other social sciences, health sciences and education.

#### Admission:

The minor in Mindfulness and Contemplative Studies is available to all University students with a Cum GPA of 2.0 or above on a space-available basis. To be admitted to the program, students must submit a Declaration of Minor form to their academic advisor, the minor coordinator and their home college dean's office.

#### Curriculum Requirements:

The minor in Mindfulness and Contemplative Studies requires the completion of six courses (18 credits), three of which are mandatory and three of which are electives. The three mandatory courses include (9 credits):

CFS 202: Development of Children and Youth (3)  
CFS 452: Mindfulness in Children and Youth (3)  
HTW 405: Cognitive Behavioral Stress Reduction (3)

Students must select three of the following courses as electives for the minor (9 credits):

AAS 338: Creative Writing Workshop (3)  
CFS 358: Prosocial & Moral Development (3)  
CRS 347: Mindful Communication Skills (3)  
HTW 301: Holistic Healing Practices (3)

Total Credits Required: 18 (9 credits come from three required courses and 9 come from three elective courses).

Notes: Note that students who are CFS majors can take CFS 358, but this course will count toward their CFS degree requirements not this minor. Thus, CFS students will have to choose non-CFS courses for their electives.

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## Nutrition

Contact Nancy Rindfuss, 315-443-2386

The B.S. degree program in nutrition includes coursework in chemistry, biology, meal management, nutrition in health, physiology, and biochemistry. Students also study nutrition in the life span, medical nutrition therapy, community nutrition, nutrition education and counseling, and advanced nutrition. Opportunities for fieldwork provide students with hands-on experience.

All students who complete degree requirements will be eligible for the B.S. in Nutrition. Additional requirements must be met to receive a dietetics verification statement. Dietetic verification statement requirements are posted on the departmental website in the program handbook.

The nutrition program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) (120 S. Riverside Plaza, Suite 2000, Chicago, IL 60606; 312 -879 -0040; ext. 5400). Graduates of this program must then complete an accredited Dietetic Internship to gain eligibility for the registration exam. To obtain an internship, a student must usually have a minimum GPA of 3.4 and related work experience.

### Lower-Division Requirements

HSH 101 First-Year Gateway 1  
WRT 105,205 Writing Studio I and II 6  
CHE 106 General Chemistry Lecture 3  
CHE 107 General Chemistry I Lab 1  
CHE 116 General Chemistry II Lecture 3  
CHE 117 General Chemistry II Lab 1  
MAT 221 Elementary Probability and Statistics I 3, or  
MAT 121 Probability and Statistics 4  
BIO 121 General Biology I 4  
BIO 123 General Biology II 3  
BIO 124 General Biology II Lab 1  
BIO 216 Anatomy and Physiology I 4  
BIO 217 Anatomy and Physiology II 4  
PSY 205 Foundations of Human Behavior 3  
NSD 114 Food Safety and Quality Assurance 2  
NSD 115 Food Science I 3  
NSD 216 Restaurant and Food Service Operations 4  
NSD 225 Nutrition in Health 3

Social sciences 6 credits

Humanities 6 credits OR Foreign Language\* 8 credits

### Upper-Division Requirements

CRS 225 Public Advocacy 3 or  
CRS 325 Presentational Speaking 3  
NSD 312 Cost Control in Food Services 3  
NSD 314 Hospitality Human Resources Management 1  
NSD 326 Practice of Dietetics 3  
NSD 342 Nutrition in the Life Span 3  
NSD 275 Food Service System 3  
NSD 455 Community Nutrition 3  
NSD 456 Nutritional Biochemistry 4  
NSD 457 Research and Evaluation in Nutrition 3  
NSD 466 Advanced Nutrition 3  
NSD 476 Nutrition Seminar 1  
NSD 477 Senior Seminar II 1  
NSD 481 Medical Nutrition Therapy I 3  
NSD 482 Medical Nutrition Therapy I Lab 1  
NSD 483 Medical Nutrition Therapy II 3  
NSD 484 Medical Nutrition Therapy II Lab 1  
NSD 511 Nutrition Education 3

NSD 512 Nutrition Counseling 3  
NSD 555 Food, Culture and Environment 3 OR NSD 452 Mediterranean Food and Culture 3

Electives to complete 124 degree applicable credits

\*Note: all 8 credits of foreign language must be in one language

Degree requires a 3 credit Writing Intensive course and 3 credits of Critical Reflections.

The Writing Intensive and critical reflections courses may meet a Humanities, Social Science, or elective requirement. Note that some courses may satisfy both the writing intensive and critical reflections requirement -For a listing of writing intensive and critical reflection courses, please consult the Liberal Arts Core Guidebook.

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## Nutrition Minor

Minor Coordinator Tanya M. Horacek, 315-443-2386

Students pursuing programs in other areas of study may choose a minor in nutrition. The minor program requires the completion of 18 credits. To be admitted to the program, students must:

1. Maintain an overall GPA of 3.0
2. Complete NSD 225
3. Meet with the minor coordinator to complete the declaration of minor form

### Required

NSD 115 Food Science I 3  
NSD 225 Nutrition in Health 3

### Choice of 12 credits:

NSD 326 Practice of Dietetics 3  
NSD 342 Nutrition in the Life Span 3  
NSD 343 Dietary Supplements 3  
NSD 417 Food as Medicine 3  
NSD 425 Nutrition for Fitness and Sports 3  
NSD 427 Public Health Nutrition 3  
NSD 447 Weight Management, Obesity, and Disordered Eating 3  
NSD 452 Mediterranean Food and Culture - A Florence Experience 3  
NSD 455 Community Nutrition 3  
NSD 511 Nutrition Education 3  
NSD 555 Food, Culture and Environment 3

### If prerequisites are taken:

NSD 456 Nutritional Biochemistry 4  
NSD 466 Advanced Nutrition 3

Note: Admission to the minor and classes will be on a space-available basis.

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## Nutrition Science

Contact Kay Stearns Bruening, 315-443-2386

The B.S. degree program in nutrition science emphasizes the biological and physical sciences. In addition to food science, nutrition in health, medical nutrition therapy, and advanced nutrition, studies include work in general and organic chemistry, biology, physiology, and biochemistry.

Completion of 40 credits in the biological and physical sciences or mathematics, including statistics, is required for graduation. A total of 30 credits in human nutrition must also be completed. Students must consult with an advisor for specific distribution of credits.

### Lower-Division Requirements

HSH 101 First-Year Gateway 1  
WRT 105,205 Writing Studio I and II 6  
CHE 106,116 General Chemistry Lecture 6  
CHE 107,117 General Chemistry Laboratory 2  
CHE 275,325 Organic Chemistry Lectures 6

CHE 276,326 Organic Chemistry Laboratory 4  
BIO 121,123,124 General Biology 8  
PSY 205 Foundations of Human Behavior 3  
NSD 225 Nutrition in Health 3  
BIO 216, 217 Anatomy and Physiology I, II 8

#### Upper-Division Requirements

NSD 457 Research and Evaluation in Nutrition 3  
NSD 481 Medical Nutrition Therapy I 3  
NSD 466 Advanced Nutrition 3 AND  
either  
NSD 456 Nutritional Biochemistry 4 OR  
BCM 475,476 General Biochemistry I and II 6

Social or behavioral sciences 6 credits

Humanities 6 credits OR Foreign Language\* 8 credits

Nutrition electives 20 credits

Electives to complete 124 degree applicable credits

\*Note: all 8 credits of foreign language must be in one language

Degree requires a 3 credit Writing Intensive course and 3 credits of Critical Reflections.

The Writing Intensive and critical reflections courses may meet a Humanities, Social Science, or elective requirement. Note that some courses may satisfy both the writing intensive and critical reflections requirement -For a listing of writing intensive and critical reflection courses, please consult the Liberal Arts Core Guidebook.

In addition to above requirements, pre-med students are required to complete additional courses in physics and mathematics according to the recommendations of the Health Professions Advisory Program.

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## Nutrition Science Minor

Minor Coordinator Kay Stearns Bruening, 315-443-2386

Students pursuing programs in other areas of study may choose a minor in nutrition science. The minor program requires the completion of 19 credits. To be admitted to the program, students must meet with the minor coordinator and file a declaration of minor form with their home college.

#### Required

NSD 225 Nutrition in Health 3  
NSD 456 Nutritional Biochemistry or equivalent 4  
NSD 466 Advanced Nutrition 3

#### Choice of 9 credits:

NSD 342 Nutrition in the Life Span 3  
NSD 343 Dietary Supplements 3  
NSD 425 Nutrition for Fitness and Sports 3  
NSD 447 Weight Management, Obesity, and Disordered Eating 3  
NSD 455 Community Nutrition 3  
NSD 481 Medical Nutrition Therapy I 3  
NSD 483 Medical Nutrition Therapy II 3  
NSD 555 Food, Culture, and Environment 3

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## Public Health B.S.

Maureen Thompson, Undergraduate Program Director, 315-443-9815, mlthomps@syr.edu

The 123 credit bachelor of science degree in Public Health (BSPH) prepares students for health related careers in government, private and non-profit organizations that address health promotion and illness prevention in individuals, families and communities. Students gain knowledge and skills in traditional public health core areas including environmental health, epidemiology, health services administration, and social & behavioral determinants of

health. In addition, the program includes coursework to prepare students to work within the field of community health education. The program culminates with a 400 hour senior internship and capstone experience.

Graduates of the program will be competent to pursue entry level employment in public health fields or to pursue graduate studies in a variety of academic areas including public health, public policy, health care administration, and law. The program can also provide students with a pathway to advanced studies in medicine, dentistry, physician assistant studies or nursing.

#### Required Courses

##### Communication Skills (9 credits)

WRT 105 Writing Studio I 3

WRT 205 Writing Studio II 3

One course focused on either oral or interpersonal communication competency. Students choose from:

CFS 255 Interpersonal Competency

CRS 225 Public Advocacy

CRS 325 Presentational Speaking

CRS 331 Interpersonal Communication

CRS 333 Small Group Communication

CRS 335 Leadership/Stewardship

CRS 430 Intercultural Communication

SWK 201 Social Work Practice Skills I

##### Quantitative Skills (6-8 credits)

Students must complete 2 semesters of quantitative skills coursework. Students complete a FIRST Course and a different SECOND Course as outlined below:

###### FIRST COURSE:

MAT 121

MAT 194

MAT 221

MAT 285

STT 101

###### SECOND COURSE (subject to pre-reqs):

MAT 122

MAT 222

MAT 285

MAT 286

PSY 252

MAX 201

##### Natural Science (9-11 credits)

###### Required:

NSD 225 Nutrition & Health 3

###### Choose 6-8 additional credits from the following:

ANT 131 Introduction to Biological Anthropology 3

BIO 115 Ecological Problems and Society 3

BIO 121 General Biology I 4

BIO 123 General Biology II 3

BIO 124 General Biology II Lab 1

BIO 211 Introduction to Neurobiology 3

BIO 216 Anatomy & Physiology I 4

BIO 217 Anatomy & Physiology II 4

EAR 106 Environmental Geology 3

EAR 110 Dynamic Earth 4

EAR 111 Climate Change Past and Present 3

EAR 117 Oceanography 3

EAR 205 Water & Our Environment 3

EAR 210 History of Earth and Life 3

GEO 155 The Natural Environment 3

GEO 215 Global Environmental Change 3

GEO 326 The Geography of Climate and Weather 3

PSY 223 Introduction to Cognitive Neuroscience 3

PSY 323 Brain and Behavior 3

##### Social Science (9 credits)

PSY 205 Foundations of Human Behavior 3  
6 additional credits of social science courses-see Liberal Arts Core Book

Humanities (9 credits)-see Liberal Arts Core Book

College Requirement (1 credit)  
HSH 101 First-Year Gateway 1

Program Requirements (45 credits)  
HTW 121 Personal and Social Health 3  
HTW 221 Health Promotion/Lifespan 3  
HTW 302 Influencing Healthy Behaviors 3  
HTW 303 Community and Environmental Health 3  
HTW 304 Community Health Education 3  
HTW 306 Public Health Administrative Systems 3  
HTW 307 Culturally Competent Health Care 3  
HTW 309 Health Disparities and Vulnerable Populations 3  
HTW 311 Health Literacy 3  
HTW 401 Epidemiology 3  
HTW 402 Implementing and Evaluating Health Programs 3  
HTW 403 Community-Based Health Policy and Research 3  
HTW 422 Senior Capstone Internship 9

General Electives to reach 123 degree applicable credits - 15 credits of which must be from the liberal arts core book.

Notes: Students must complete an approved Global Diversity course (3 credits-see Public Health website for list of approved courses) and an approved Health Ethics course (3 credits). These courses may be a humanities, a social science or a general elective.

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## Public Health Minor

The Minor in Public Health is available to all University students with a Cumulative GPA of 2.5 or above and provides students with opportunities to develop broad competencies in areas of study commonly identified with public health. The minor is designed in part for students wishing to gain knowledge and skills for employment in a number of fields that intersect with public health or in preparation for graduate study in public health. The minor requires completion of 18 credits, including 12 credits above the 300 level. To be admitted into the minor, a student must submit a Declaration of Minor form to his or her faculty advisor, the Public Health Minor coordinator, and the Dean's office in his or her home college.

For more information, or to obtain a form to declare the Minor in Public Health, contact the minor coordinator, Dr. Maureen Thompson (mlthomps@syr.edu).

Please note: students who pursue a minor in public health may not pursue a minor in health and wellness or a minor in addiction studies. Public health majors may not pursue a public health minor.

### Course Requirements for the Minor in Public Health

Required Courses:  
HTW 221 Health Promotion Across the Lifespan  
HTW 303 Community and Environmental Health  
HTW 306 Public Health Administrative Systems  
HTW 309 Health Disparities and Vulnerable Populations

Students choose 2 additional courses from the following:  
HTW 305 Community Mental Health Promotion  
HTW 307 Culturally Competent Health Care  
HTW 311 Health Literacy  
HTW 401 Epidemiology  
HTW 415 Public Health Ethics  
HTW 403 Community Based Health Policy & Research  
HTW 463 Global Health  
HTW 437 LGBTQ Health & Well Being  
HTW 462 Culture and Reproductive Health and Medicine  
NSD 342: Nutrition in the Life Span  
NSD 455: Community Nutrition

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## Social Welfare Minor

Students pursuing minors in other areas of study may choose a social welfare minor. The minor program requires the completion of 18 credits. To declare a minor, students must have a minimum cumulative GPA of 2.5 and submit a Declaration of Minor form to the social welfare minor program or the director of the baccalaureate social work program, their faculty advisors, and the dean's office of their home colleges. A limit of 3 transfer credits may be applied with permission.

Required core courses (3 or 6 credits; 3 credits each)

SWK 115 Introduction to Social Welfare or

SWK 201 Social Work Practice and Skills Laboratory I

(If both SWK 115 and 201 are taken, SWK 115 must precede SWK 201.)

Elective courses (12-15 credits; 3 credits each)

SWK 314 Social Welfare Policy and Services I

SWK 315 Social Welfare Policy and Services II

SWK 326 Persons in Social Context

SWK 328 Human Diversity in Social Contexts

SWK 357 Processes of Aging

SWK 361 Foundations of Social Work Research

SWK 400 Selected Topics

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## Social Work

Contact Bette Brown Thoreck, Baccalaureate Program Director, 315-443-9723

The bachelor of science degree in social work requires the completion of 120 credits. Social work major requirements total 42 credits. Liberal arts and supporting requirements total 55 to 58 credits including 12 to 15 credits in liberal skills, 12 credits in humanities, 24 credits in social sciences, 7 credits in natural sciences, and 20 to 23 credits of electives.

College Requirement (1 credit)

HSH 101 First-Year Gateway 1

MAJOR REQUIREMENTS (42 credits)

SWK 201,202 Social Work Practice Skills Laboratory I and II 6

SWK 301 Foundations of Social Work Practice 3

SWK 314,315 Social Welfare Policy and Services I and II 6

SWK 326 Persons in Social Contexts 3

SWK 328 Human Diversity in Social Contexts 3

SWK 361 Foundations of Social Work Research 3

SWK 401,402 Strategies of Social Work Intervention I and II 6

SWK 435,436 Field Practicum I; Field Seminar I 6

SWK 445,446 Field Practicum II; Field Seminar II 6

Liberal Skills Requirements (12-14 credits)

Expository writing 6-9

Mathematics 6-8

Note: The statistics requirement for social work students may be satisfied by taking MAT 121/122 or MAT 221/222/PSY 252 as a liberal skills requirement.

Humanities Divisional Perspectives (12 credits)

Social work students must complete 12 credits in the humanities divisional perspective defined in the liberal arts core of the College of Arts and Sciences.

More detail is offered in the publication, "Liberal Arts Core."

Natural Sciences Divisional Perspective (7 credits)

Required - BIO 121 General Biology 4

Choose one of the following:

ANT 131 Introduction to Human Evolution 3

BIO 123 General Biology 3

PSY 223 Introduction to Biopsychology 3

PSY 315 Drugs and Human Behavior 3  
PSY 395 Abnormal Psychology 3  
NSD 225 Nutrition in Health 3

Social Sciences Divisional Perspective (24 credits)

AAS/ANT 112 Introduction to African American Studies, or ANT 121 Peoples and Cultures of the World 3

ECN 203 Economic Ideas and Issues, or ECN 258 Poverty and Discrimination in America 3

PSC 121 American National Government and Politics, or PSC 122 American State and Local Government and Politics 3

PSY 205 Foundations of Human Behavior 3

PSY 274 Social Psychology 3

PSY 335 Psychology of Childhood, or PSY 336 Psychology of the Adolescent, or CFS 202 The Development of the Young Child in the Family 3

PSY 337 Psychology of Adult Life: Maturity and Old Age, or SWK 357 Processes of Aging 3

SOC 101 Introduction to Sociology or SOC 102 Social Problems 3

Electives to reach 120 degree applicable credits

Specific advising guidelines for selecting and sequencing required and elective courses are available from the School of Social Work.

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## Sport Management (B.S.)

Gina Pauline, Director Undergraduate Program, 315-443-2630

The 124-credit hour B.S. in Sport Management incorporates studies in arts and sciences with professional electives and liberal arts requirements, providing students with the tools to pursue careers and graduate study in sport.

Department specific coursework includes marketing, management, communications, finance, and law. The degree allows students to pursue a concentration or minor to tailor their studies according to their professional interests.

### PROGRAM REQUIREMENTS

Communication Skills (12 credits)

WRT 105 Writing Studio I (3 credits)

WRT 205 Writing Studio II (3 credits)

WRT 307 Advanced Writing Studio (3 credits)

CRS 325 Presentational Speaking (3 credits)

Quantitative Skills (11 credits)

MAT 183 Elements of Modern Math (4 credits)

MAT 221 Elementary Probability and Stats (3 credits)

MAT 284 Business Calculus (3 credits)

Natural Science and Mathematics Division (7 credits)

Natural Science (must include a lab) (4 credits)

Natural Science elective (3 credits)

Humanities Division (9 credits)

Social Science Division (12 credits)

ECN 203 Economic Ideas and Issues (3 credits)

ECN 300 Level or Higher (3 credits)

Social Science elective (6 credits)

Additional Liberal Arts Courses (9 credits)

General Skills (4 credits)

HSH 101 First-Year Gateway 1

ACC 201 Essentials of Accounting 3

Program Requirements (43 credits)

SPM 201 Professional Development in Sport Management (1 credit)

SPM 205 Principles and Contemporary Issues in Sport Management (3 credits)

SPM 215 Principles of Sales in Sport (3 credits)

SPM 225 Managing the Sport Organization (3 credits)

SPM 295 Research Methodology (3 credits)

SPM 315 Sport Finance (3 credits)

SPM 325 Sport Communications (3 credits)

SPM 345 Technology in Sport Management (3 credits)

SPM 395 Psycho-Social Issues of Sport (3 credits)  
SPM 415 Sport Law (3 credits)  
SPM 444 Sport Marketing Management (3 credits)  
SPM 455 Senior Sport Management Capstone (12 credits)

Students must also complete one of the following as part of the Sport Management degree requirements: Program Electives (15 credits) or Minor (15-18 credits) or Area of Specialization (15-18 credits)

Electives: \*to reach 124 degree applicable credits

Total Credits: 124

\*Students must take enough credits in electives to complete the 124 credits required for graduation. These electives may be taken in any school or college within the University. No more than four credits may be in physical education and no more than six experience credits accepted towards degree.

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## Sport Management Minor

Jeff Pauline, Minor Coordinator, 315-443-2630

The 18-credit minor in Sport Management is designed for students who are interested in pursuing a career path in the sport industry along with their chosen major. Students selecting this minor in sport management should have an interest in learning about the business, communications, marketing, event planning, economic, global, and legal aspects of the sport industry.

### Criteria and Important Deadlines

Applicants are admitted on a space-available basis. To be eligible, students must have:

1. a cumulative GPA of 3.25 or above;
2. completed a minimum of 30 credits at Syracuse University in courses graded A-F;
3. submit a minor application;
4. declare a minor no later than the first semester of junior year.

Deadlines for applying for the minor are November 1 for spring admission and April 1 for fall admission.

Required core course (3 credits)

SPM 205 Principles and Contemporary Issues in Sport Management (3 credits)

Plus 15 credits of additional Sport Management courses, 12 credits of which must be numbered 300 or above.

# Courses

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## Child And Family Studies

**CFS 201 Family Development 3 S**  
Theoretical and functional approach to marital and family life with a developmental perspective. Issues related to marital and parental careers.

**CFS 202 Development of Children and Youth 3 S**  
Principles and patterns of child and youth development. Influence of biological and experiential factors. Extra-familial and intra-familial relationships as they influence child and youth development. Fieldwork or equivalent required.

**CFS 204 Applied Research Methods in Child and Family Studies 3 Y**  
Critical evaluation of research studies, development of basic skills for conducting research and application of research knowledge and skills in practical settings.  
PREREQ: CFS 201 AND 202 AND (MAT 121 OR 221) AND COREQ: MAT 122 OR 222 OR MAX 201 OR PSY 252 OR SWK 361.

**CFS 255 Interpersonal Competence 3 Y**  
Interpersonal problem-solving skills. Helping theories appropriate to human development settings. Skills and behaviors that apply theory to practice setting.

**CFS 270 Experience Credit 1-6 S**  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

**CFS 290 Independent Study 1-6 S**  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

**CFS 300 Selected Topics 1-3**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**CFS 325 Children and Families in Health Care Settings 3 Y**  
Basic child life theory and practice focused on improving healthcare experiences for children and families by providing play, preparation and education programs in pediatric settings.  
PREREQ: CFS 202.

**CFS 326 Developmental Perspectives in Medical Language 3 Y**  
Understanding of developmentally supportive approaches to healthcare communication within the context of illness, injury and hospitalization. Introduction to medical terms related to body systems/disorders, with emphasis on developmentally appropriate medical language and communication in pediatrics.

**CFS 327 Human Development and Sport 3 Y**  
Examines the dynamics of social change and human well-being in the context of sport in promoting positive youth development. Personal, social, and cultural development through sport-based programs and initiatives are explored.

**CFS 331 Play, Childhood Development and Early Education 3 Y**  
Importance of play for children's overall development; the roles of parents and teachers in supporting children's play from infancy through early school age; enriching classroom play; diversity and special needs considerations.  
PREREQ: CFS 202.

**CFS 335 Issues and Perspectives in Early Childhood Education 3 Y**  
Major approaches, theoretical rationale, research bases, and policy issues related to child care and educational models.  
COREQ: CFS 202.

**CFS 345 The Developing Infant 3 IR**  
Double Numbered with: CFS 645  
Pregnancy and neonatal and child development from birth to three years. Theory and research findings: biological, psychological, and family. Systematic observations of infants. Additional work required of graduate students.  
PREREQ: CFS 202.

**CFS 358 Prosocial & Moral Dvlpmnt 3 IR**  
Theories and research on familial, societal, and cultural variables related to pro-social and moral development in infants and young children. Child observation required.  
PREREQ: CFS 202.

**CFS 363 Intro to Gerontology 3 Y**  
Multidisciplinary overview of phenomenon of human aging. Interrelationships of age-related changes and the contemporary status of older people.

**CFS 365 Lang Dev in Childr & Fam 3 IR**  
Double Numbered with: CFS 665  
Psycholinguistic theories and child language research.-Social class, cultural, familial, and dialectical influences. Language enrichment programs and assessments. Systematic observations of child language required. Additional work required of graduate students.  
PREREQ: CFS 202.

**CFS 367 Child and Family in Cross-Cultural Perspectives 3 Y**  
Introduction to field methods, the study of childhood, sex roles, and family in cross-cultural perspectives.

**CFS 371 Latino Families and Children in the United States 3 Y**  
Course explores some of the issues relevant to the understanding of Latino families and their children in the United States.

**CFS 377 Children/Black Families 3 IR**  
Differences and similarities in environmental influences, parenting styles, cognitive development, and expectations and responsibilities of children within the black family.

**CFS 382 Immigrant Families and Children 3 IR**  
Family functioning in immigrant families in the United States. Psycho-social adjustment, physical health and well-being, economic conditions, employment patterns, parent-child relationships, schooling, identity, and community relations.

**CFS 387 Int Rel & Gender Roles 3 Y**  
Overview of marriage and the couple relationship in contemporary society. Relationship development, maintenance, and termination; conflict resolution skills; ethnic/racial and cultural variations; and issues related to gender.

**CFS 388 Human Sexuality 3 S**  
Broad areas of human sexuality: the developmental and social aspects of sexuality as developed within the individual and within relationships; multicultural and multiethnic aspects of human sexuality; and those aspects of sexual behavior which represent alternatives to conventional behavior.

**CFS 389 Leading Human Sexuality Discussion Groups 3 S**  
Preparing students to effectively lead discussion groups on human sexuality and relationships with peers.  
PREREQ: CFS 388.

**CFS 395 Seminar: Family and Child Intervention 3 Y**

Opportunities for upper-division students to apply their knowledge bases to economic, political, and social issues that impinge on how children and families can be expected to function in the larger society.  
PREREQ: CFS 201 OR 202.

**CFS 400 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**CFS 422 Work and Family in the 21st Century 3 Y**

Crosslisted with: SOC 422, WGS 422  
Examines the social, demographic, and economic forces that are reshaping the boundaries between family and work.

**CFS 423 Death, Dying & Loss: Child and Family Perspectives 3 Y**

Systematic understanding of developmental and conceptual framework surrounding children and youths understanding of illness, dying and death. Concepts of bereavement, grief and loss will be examined in the context of child and family development.  
PREREQ: CFS 201 AND 202.

**CFS 425 Lust, Love and Relationships 3 Y**

The intricate dynamics of relationships ranging from "for what and why" individuals are attracted to each other to "why and how" individuals become embroiled in seemingly irresolvable conflict across a variety of social contexts.

**CFS 430 Intervention Models for Infants and Preschoolers 3 IR**

Theory and application of models of assessment and intervention focusing on promoting positive outcomes in the areas of growth, development, health, attachment and adjustment.

**CFS 432 Foundations and Principles of Early Childhood Education 3 S**

Includes practicum in preschool setting. Developmentally appropriate and integrated learning experiences.  
PREREQ: CFS 202; COREQ: CFS 335.

**CFS 433 Child Practicum 3 S**

Seminar and supervised internship in diverse educational and social agencies that serve the needs of children and their families. Applying theory to practice, learning to work within agencies, and identifying career goals.  
PREREQ: CFS 432.

**CFS 447 Principles and Practices in Parenting 3 IR**

In-depth examination of major perspective and research on parenting practices and parent-child relationships.

**CFS 448 Contemp Amer Family&Commn 3 IR**

Subsystems of a community. How community resources affect family systems, residential patterns, and other factors with regard to social, geographic and economic mobility.  
PREREQ: CFS 201.

**CFS 452 Mindfulness in Children and Youth 3 Y**

Double Numbered with: CFS 652  
Importance of mindfulness for optimal development in children and youth; school- and community-based interventions that target mindfulness; mindful parenting. Additional work required of graduate students.

**CFS 470 Experience Credit 1-6 S**

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

**CFS 479 Power, Conflict, Violence, and the Family 3 Y**

Crosslisted with: WGS 479  
Introduction to power and conflict in intimate and familial relations. Neglect, abuse, molestation, rape, battering, and violence.  
PREREQ: CFS 201.

**CFS 486 Family Life Education 3 IR**

Double Numbered with: CFS 686  
The course is intended to prepare students for the role of family life professionals and educators. Students will learn to apply their knowledge of family theories and other relevant theoretical perspectives to real life settings. Additional work required of graduate students.  
PREREQ: CFS 201 AND 202.

**CFS 487 Critical Incidents in Family Development 3 IR**

Impact of various crises upon the family system: mental and physical health, intellectual disability, alcoholism, death, marital discord, unemployment, etc. Opportunity for investigation of areas of special interest.  
PREREQ: CFS 201.

**CFS 490 Independent Study 1-6 S**

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

**CFS 493 Youth and Family Practicum 3 S**

Seminar and supervised internship in the community designed to apply theory to practice by developing skills in working with children, youth and families, learning to work within an organization, and identifying career goals.  
PREREQ: CFS 201 AND 202.

**CFS 494 Youth and Family Practicum II 3 S**

Seminar and supervised internship designed to promote the professional development of human service workers and to identify and implement evidence-based practices with clients in a community setting.  
PREREQ: CFS 493.

**CFS 499 Honors Capstone Project 1-3 SI**

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

**CFS 534 Practcm/Early Chldhood Ed 3 IR**

Planning and implementing curriculum for prekindergarten or kindergarten children. Fieldwork and seminar.

**CFS 535 Quality Infant Care Giving 2-3 SI**

Crosslisted with: EDU 535  
Workshop. Research theories and demonstrations of infant/toddler care, development, and assessment; group care, legal and budgeting issues, and work with parents.

**CFS 557 Sep & Div: Impct/Chld&Fam 3 IR**

Social and psychological issues, theories, and research.

**CFS 577 Urban Families Strengths and Challenges 3 IR**

Theoretical and empirical research on the challenges and opportunities for children and families living in urban settings. Issues of urban housing, family-community partnerships, crime, and criminal processing, health, urban diversity, and social science policies.

**CFS 597 Early Childhood Program Administration 3 SI**

Prepares students to administer, coordinate, promote, consult, and assist in the start-up and development of early childhood program services.

## Food Studies

### FST 100 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### FST 102 Food Fights: Contemporary Food Issues 3 Y

Introduction to key issues of the contemporary food system. Explores various social, political, economic, and environmental dimensions of food production, distribution, and consumption with a focus on the United States.

### FST 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### FST 201 Professional Baking 3 Y

Fundamentals. Bakeshop production and control, formulas, basic measurement, conversions, ingredients, the baking process, basic mixes, and doughs.

### FST 202 Agroecology 3 Y

Explores the biological processes that undergird the food production system on which we depend. Topics include soil fertility and quality, pest ecology, nutrient cycling and socioeconomic and policy aspects of agricultural production.

### FST 203 Fine Pastries and Desserts 3 Y

This laboratory intensive course is designed to develop students' fundamental working knowledge and practice of the traditional and modern methods of producing, finishing, and plating pastries and desserts.

### FST 217 World Cuisines 3 IR

Traditional foods of different countries and cultures. Equipment and ingredients unique to ethnic foods.

### FST 222 Introduction to Culinary Arts 3 S

Culinary theory and practice. Ingredient identification, sensory evaluation, ethnic ingredients, cultural preparation methods, and plate presentation. Menu development for non-commercial applications. Laboratory intensive hands-on preparation and practice.

### FST 300 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### FST 303 Food Movements 3 Y

Examination of food movements, the various efforts to address public health, social, and environmental contradictions of the conventional food system.

PREREQ: FST 102.

### FST 304 Farm to Fork 4 Y

Exploration of alternative food systems, including culinary theory and practice. Topics in contemporary food issues examined through systems perspective and practical applications. Includes field trips and cooking laboratory.

### FST 306 Food Cooperatives 3 E

Introduction to marketing and bargaining cooperatives, farmers markets and Community Supported Agriculture (CSA). Topics will include the history and current state of agricultural and food cooperatives, community kitchens, farmer's markets and CSAs.

### FST 307 Feeding the World: Global Agri-Food Governance 3 Y

This course explores the interaction between the structure of the global food system and consumer food choices; and how that interactive process produces environmental, food safety, food security and nutrition outcomes for all stakeholders.

### FST 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### FST 402 Feeding the City: Urban Food Systems 3 Y

Investigation of relationship between food and cities, including the many ways food shapes urban sustainability, public health, community, and economic development. Additional topics include municipal food policies and urban planning for community-based food systems.

### FST 403 The Human Right to Adequate Food and Nutrition 3 Y

Double Numbered with: FST 603  
Evolution of human right to adequate food. Social, political, economic and cultural conditions influencing progressive realization of right to food and nutrition. Additional work required of graduate students.

PREREQ: FST 102.

### FST 406 Philosophy & Practice of Locavorism 3 Y

An examination of the philosophy, politics and practice of eating locally produced food year-round. Emphasis placed on the understanding the societal ramifications of the practice of preserving locally-produced fruits and vegetables and processing game and other meat animals.

PREREQ: NSD 115.

### FST 412 Wine Appreciation 3 S

Wine types, varieties, terminology, labeling and regulation. Sensory evaluation of wines, wine lists and matching wine and food. Must be 21 years of age. Students can only receive credit for FST 412 or FST 422.

### FST 416 Cultural Cuisine 1-3 SI

An exploration of various cultural cuisines. Topics explored include food and cooking, history, menus, specialty foods and cooking techniques within the context of the culture. Permission of instructor. R2, 3 credits maximum

### FST 421 Morality of a Meal: Food Ethics 3 Y

Double Numbered with: FST 621  
Food consumption and production are explored in the context of community and environment with the application of ethical theories to broad food issues and challenges. Additional work required of graduate students.

### FST 422 Wine and Beer Appreciation 2 S

Ingredients, processes and laws. Sensory evaluation and discussion of still and sparkling wines and beers. Student must be 21 years of age. Students may not take both FST 412 and FST 422.

### FST 423 Food in History 3 IR

Explore how food has shaped the world's history from prehistoric times. Discover how it is shaping the 'history' of who you are. Sophomores, juniors, and seniors.

### FST 485 Research Experience in Food Studies 3 Y

Opportunities to conduct senior-level undergraduate research in Food Studies. PREREQ: NSD 457.

### FST 486 Food Studies Practicum 3 S

Supervised 85 hour field experience in food studies plus weekly seminar. PREREQ: FST 102 AND NSD 115 AND NSD 457.

## Human Services And Health Professions

### SHS 101 First-Year Gateway 1 Y

Academic and psycho-social tasks associated with successful transition to college and the first-year experience. Focus on assisting students in acquiring academic, personal, and interpersonal knowledge and skills necessary for college success.

## Health And Wellness

### HTW 121 Personal and Social Health 3 S

Examines behavioral and social factors influencing the health of young adults.

### HTW 180 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

### HTW 200 Selected Topics in Health & Wellness 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### HTW 221 Health Promotion Across the Life Span 3 S

Health professional's role in health promotion and illness prevention, includes service-learning opportunities.

### HTW 227 Healthy You Practicum 1 S

Explores student interests and skills in health writing, illustration, photography and layout/design in the context of developing a health newsmagazine for college students. R7, 8 credits maximum

### HTW 270 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### HTW 280 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

### HTW 290 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

### HTW 301 Holistic Healing Practices 3 Y

Explores historical backgrounds, techniques, research findings, and health impacts of selected holistic health practices. Includes guest expert demonstrations and guided participation, and opportunities for self-care. Addresses professional roles, training, certification, and resources.

### HTW 302 Influencing Healthy Behavior 3 S

Factors influencing the adoption and maintenance of healthy behaviors.

### HTW 303 Community and Environmental Health 3 S

Examination of health problems facing groups and communities, including those associated with environmental hazards.

### HTW 304 Community Health Education 3 S

Role of the community health educator in the health care delivery system; examination of theory and research in community-level health promotion. PREREQ: HTW 221.

### HTW 305 Community Mental Health Promotion 3 Y

Examination of factors that create living conditions and environments that support mental health; including the relationship between spirituality and health.

### HTW 306 Public Health Administrative Systems 3 S

The organization of the American Medical and Public Health systems. It will familiarize students with operational aspects of public health programs.

### HTW 307 Culturally Competent Health Care 3 Y

Theoretical basis for the provision of culturally competent health care.

### HTW 309 Health Disparities and Vulnerable Populations 3 S

Examines inequalities in health care across selected vulnerable populations.

### HTW 311 Health Literacy 3 Y

Explores links between literacy and health; principles and strategies of effective health care communication; includes principles of informed and shared decision-making.

### HTW 318 Alcohol, Other Drugs, Sex and Gambling: Dynamics of Addiction 3 S

Double Numbered with: HTW 618

The biological, psychological, and social factors of substance use and related addictions that exist across cultures and species. Additional work required of graduate students.

### HTW 321 Prevention in Addiction Services 4 Y

Double Numbered with: HTW 624

Theories, principles and strategies relevant to addiction prevention services with diverse populations. Provides an overview to the design and evaluation of addiction prevention programs. 15 hours of community based prevention activities required. PREREQ: HTW 318.

### HTW 382 Health in the Middle East 3 IR

Crosslisted with: ANT 382, MES 382

Surveys major cultural, biological and environmental features of the Middle East and relates them to aspects of health including infectious disease, chronic disease, reproductive health, population, war, poverty and globalization.

### HTW 401 Epidemiology 3 S

Methods used in the study of the etiology, distribution, and control of disease. Requires prior completion of the Quantitative Skills Requirement.

PREREQ: (MAT 121 OR 194 OR 221 OR 285 OR STT 101) AND (MAT 122 OR 222 OR 285 OR 286 OR PSY 252 OR MAX 201).

### HTW 402 Implementing and Evaluating Health Programs 3 S

Strategies for implementing and evaluating health programs. COREQ: HTW 304.

### HTW 403 Community-Based Health Policy and Research 3 S

Knowledge and skills for conducting community-based participatory health research and its influence on affecting health policy.

HTW 404 Comparative Health Policy 6 SS  
Double Numbered with: HTW 604  
Overview of health systems and policies of selected developed and developing countries. Policies and programs used to address a health problem in a selected country will be compared to policy approaches in other countries. Offered only overseas through Syracuse University Abroad.

HTW 405 Cognitive Behavioral Approaches to Stress Reduction 3 Y  
Double Numbered with: HTW 605  
Students will learn mindfulness practices for professional self-care and as therapeutic modalities. Examining stressors mindfully through focused attention on the present. Separately observing the mind's cognitive and emotive reactions to present, past and anticipated events. Additional work required of graduate students.

HTW 406 Clinical Evaluation and Assessment of Addictions 3 Y  
Double Numbered with: HTW 606  
Pre-treatment tools for engaging individuals in the evaluation and assessment of potentially problematic use of addictive and other addictive behaviors. Emphasizes the bio-psycho-social underpinnings of addictions. Role of the counselor as change agent. Additional work required of graduate students. PREREQ: HTW 318.

HTW 407 Motivational Interviewing for Behavioral Change 3 Y  
Double Numbered with: HTW 607  
Philosophies, practices, and outcomes of behavioral change. Motivational interviewing and solution-focused approaches to addictions and related health counseling. Individual counseling, goal setting and relapse prevention techniques. Additional work required of graduate students.

HTW 408 Addictions in Cultural Context 3 Y  
Double Numbered with: HTW 608  
Exploration of the role played by drugs in different societies, and follows the dissemination of different substances in the process of cultural encounters. Additional work required of graduate students. COREQ: HTW 318.

HTW 409 The Impact of Addictions on Families and Relationships 3 Y  
Double Numbered with: HTW 609  
Knowledge of effects of chemical dependency on family, significant others and the importance of family support in recovery. Knowledge of basic family treatment approaches. Additional work required of graduate students.

HTW 410 Addictions Treatment Planning and Referral 3 Y  
Double Numbered with: HTW 610  
Treatment, planning, clinical record keeping, and discharge planning in addition to individual and group, recovery models, replacement therapy, and dual-diagnosis. Additional work required of graduate students. PREREQ: HTW 406.

HTW 412 Global Perspectives in Alcohol & Other Drug Policies 3 SS  
Double Numbered with: HTW 612  
Traveling throughout Europe, this seminar course examines historical and contemporary influences of public health, drug policies, the drug war and their connections with complex trans-national economic issues such as immigration, and human trafficking. Additional work required of graduate students.

HTW 415 Public Health Ethics 3 Y  
Double Numbered with: HTW 615  
Ethical issues in public health, including legal and policy responses. Role of religious and social values in setting health policy. Additional work required of graduate students.

HTW 419 Health Promotion: Disability 3 Y  
Crosslisted with: DSP 419  
Factors influencing the health & well-being of persons with disability, including models of disability, disability history, law and services, health disparities, health promotion, ethics, violence, and disaster preparedness.

HTW 422 Senior Capstone Internship 9 S  
Supervised professional internship in public health; 400 hours required. Seminar included. PREREQ: HTW 121 AND 221 AND 302 AND 303 AND 304 AND 307 AND 311 AND 402 AND 403.

HTW 436 Ethics in Addiction Services 3 Y  
Double Numbered with: HTW 636  
Application of professional codes of ethics and ethical standards using case studies of ethical dilemmas within the addiction services. Additional work required of graduate students

HTW 437 LGBTQ Health and Well Being 3 SI  
Crosslisted with: QSX 437, SWK 437  
Application of concepts from an ecological framework to understand the micro, mezzo, macro, and social forces that impact the health and well-being of lesbian, gay, bisexual, transgender and queer populations.

HTW 438 Native American Health Promotion 3 Y  
Crosslisted with: NAT 438; Double Numbered with: HTW 638  
Examines Native American culture and its contribution to wellness, including indigenous foodways, fitness and indigenous knowledge as an adjunct to chemical dependency treatment. Includes the historical roots of trauma as social determinants of health disparities. Additional work required of graduate students.

HTW 462 Culture and Reproductive Health and Medicine 3 IR  
Crosslisted with: ANT 462, WGS 462; Double Numbered with: HTW 662  
Cultural anthropological approaches to cross-cultural variations in reproductive practices (pregnancy, childbirth, infertility, etc.) Impact of globalization, biomedicalization, international development on reproduction and reproductive health. Medical anthropology and gender studies.

HTW 463 Global Health 3 Y  
Crosslisted with: ANT 463; Double Numbered with: HTW 663  
Global health in anthropological perspective. Examines how culture affects people's experience and response to morbidity and mortality. Considers topics like gender and health, reproductive health, infectious disease, health and inequality and health and war.

HTW 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

HTW 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HTW 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

HTW 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### Marriage And Family Therapy

MFT 567 Sexual Issues for the Helping Professional 3 SS  
Sexual abuse, sexual assault, sexual dysfunction, sex and disability, and nontraditional sexual relationships. Introduction to educational and therapeutic intervention.

### Nutrition Science And Dietetics

NSD 114 Food Safety and Quality Assurance 2 S  
Theory and practice of food safety and quality assurance in commercial food service operations. Origins and prevention of food-borne illness. Development and management of HACCP-based food safety systems.

NSD 115 Food Science I 3 S  
Explore principles of food science and preparation, including basic physical and chemical properties of food and the relationship to nutrition. Students analyze aspects of food quality and safety and apply concepts to hands-on production.

NSD 216 Restaurant and Food Service Operations 4 S  
Principles, concepts and application of food preparation, service, supervision and management techniques. Menu planning, production control, budget and event planning. PREREQ: NSD 115.

NSD 225 Nutrition in Health 3 S  
Nutrient requirements, functions, and sources. Interrelationships and application to food selection for healthy individuals. Weight control, sports nutrition and dietary supplements are discussed.

NSD 275 Food Service Systems 3 Y  
Interrelationship of subsystems within food service environments. Subsystems studied include: menu development, procurement, preparation, cooking, delivery systems, sanitation, budgeting, human resource management, and facility planning. PREREQ: NSD 115.

NSD 290 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

NSD 312 Cost Control in Food Services 3 S  
Systems and procedures required to establish, maintain, and control all segments of revenue and cost within the food service operation. Application to human, material, and mechanical structure of food service establishments. PREREQ: NSD 115.

NSD 314 Hospitality Human Resources Management 1-3 Y  
Examination of human resource policies, practices, and systems required to attract, develop, and retain customer-focused employees. Emphasis on human resource issues within a diverse workforce. Instruction based classroom lecture, discussion, case studies and projects. PREREQ: NSD 216.

NSD 326 Practice of Dietetics 3 S  
Laboratory application of nutrition science to dietetics. Introduction to tools and techniques used in dietetic practice. COREQ: NSD 225.

NSD 329 Pediatric Diabetes 1 IR  
An overview of causes, characteristics and nutrition guidelines and recommendations for children with diabetes. PREREQ: NSD 326.

NSD 342 Nutrition in the Life Span 3 S  
Human nutritional needs related to health promotion and prevention of disease throughout the life cycle. Factors influencing nutritional status and requirements during various stages are emphasized. PREREQ: NSD 225.

NSD 343 Dietary Supplements 3 IR  
Explores dietary supplement regulations in USA; available supplements emphasizing weight loss, athletic performance, herbal supplements; risks and benefits, marketing, reliable information sources. PREREQ: NSD 225.

NSD 371 Dietetics Experience I 1 IR  
Clinical experience related to nutritional needs throughout the life cycle.

NSD 417 Food as Medicine 3 Y  
Double Numbered with: NSD 617  
This course explores the landscape of food and nutrition, past and present, the role of nutrition in therapeutic lifestyle changes and the use of food as a therapeutic modality. Additional work required by graduate students. PREREQ: NSD 225.

NSD 425 Nutrition for Fitness and Sports 3 S  
Double Numbered with: NSD 625  
Energy needs of activity and effect of dietary intake on performance. Special dietary requirements of specific sports and athletic activities. Dietary ergogenic aids; weight control; sports fads and myths; interaction of alcohol, caffeine, and tobacco on nutrition. Additional work required of graduate students. PREREQ: NSD 225.

NSD 427 Public Health Nutrition 3 Y  
Double Numbered with: NSD 627  
Examines nutrition challenges and opportunities from an ecological perspective, emphasizing population-level approaches to improve nutritional status. Integrates case studies to examine challenges and programmatic and policy solutions. Prior statistics and basic nutrition course required. Additional work required of graduate students. PREREQ: NSD 225.

NSD 447 Weight Management, Obesity and Disordered Eating 3 Y  
Double Numbered with: NSD 647  
Basic principles of weight management and role of nutrition and physical fitness in weight control. Causes, characteristics, and treatment of anorexia nervosa, bulimia, pica, and obesity; strategies for nutritional management. Additional work required of graduate students. PREREQ: NSD 225.

- NSD 452 Mediterranean Food and Culture: A Florence Experience 3 Y  
Double Numbered with: NSD 652  
Renowned cuisine and culture from a food studies and systems level to dietary patterns and health risks via lectures, readings, field trips and excursions from the SU Florence campus. Additional work required of graduate students.  
PREREQ: NSD 225.
- NSD 455 Community Nutrition 3 Y  
National, state, and local programs designed to meet food, nutrition, and health needs of vulnerable groups. Roles and functions of nutritionists in the community.
- NSD 456 Nutritional Biochemistry 4 Y  
Structure of carbohydrates, lipids and proteins; their functions and interactions in a complex organism. Major reactions and regulation of metabolic pathways. For nutrition majors.  
PREREQ: CHE 106 AND 116 AND BIO 216 AND 217.
- NSD 457 Research and Evaluation in Nutrition 3 S  
Integrates an understanding and application of research methods in nutrition science. Requires evaluation of current research and builds on knowledge gained from other courses and applies it to research and evaluation.
- NSD 458 Participatory Program Planning 3 Y  
Double Numbered with: NSD 658  
Participate with community of choice and research to produce a plan applying the steps of the PRECEDE-PROCEED model to develop a health promotion program. Additional work required of graduate students.  
PREREQ: NSD 225.
- NSD 461 Community Nutrition Experience 1-3 IR  
Site visits and field experience with national, state, and local programs designed to meet food, nutrition, and health needs of vulnerable groups. Roles and functions of nutritionists in the community. Nutrition majors only.  
PREREQ: NSD 455.
- NSD 466 Advanced Nutrition 3 Y  
Metabolic processes of the body. Interrelationships and interdependence of nutritional factors.  
PREREQ: NSD 225 AND 456 AND BIO 216 AND 217.
- NSD 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R
- NSD 476 Nutrition Seminar 1 Y  
Trends and opportunities in dietetics; entrepreneurship; quality assurance; assessment of personal and professional goals, development of career plan.
- NSD 477 Senior Nutrition Seminar II 1 Y  
Showcase the outcomes of the four year nutrition program by presenting a research portfolio engaging in a networking event and completing the fourth year assessment.  
PREREQ: NSD 476.
- NSD 481 Medical Nutrition Therapy I 3 Y  
Double Numbered with: NSD 681  
Nutrition problems in adapting food habits for physical and metabolic alterations caused by selected disease states, within the context of the nutrition diagnostic and care process. Additional work required of graduate students.  
PREREQ: NSD 225 AND BIO 216 AND 217.
- NSD 482 Medical Nutrition Therapy I Lab 1 Y  
Double Numbered with: NSD 682  
Application of the nutrition care process, model, and diagnostic language for selected disease states to solve clinical nutrition problems. Additional work required of graduate students.  
PREREQ: NSD 225 AND BIO 216 AND 217;  
COREQ: NSD 481.
- NSD 483 Medical Nutrition Therapy II 3 Y  
Double Numbered with: NSD 683  
Nutrition problems in adapting food habits for physical and metabolic alterations caused by selected disease states within the context of the nutrition diagnostic and care process. Continuation of NSD 481/681. Additional work required of graduate students.  
PREREQ: NSD 481.
- NSD 484 Medical Nutrition Therapy II Lab 1 Y  
Double Numbered with: NSD 684  
Application of the nutrition care process, model, and diagnostic language for selected disease states to solve clinical nutrition problems. Continuation of NSD 482/682. Additional work required of graduate students.  
PREREQ: NSD 482; COREQ: NSD 483.
- NSD 490 Independent Study 1-6 S  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R
- NSD 497 Research Experience 1-3 IR  
Laboratory, clinical, or community-based research under direct supervision of NSD department faculty. Projects incorporate use of scientific methods, (quantitative and qualitative), data analysis, presentation and interpretation, and the responsibilities of research integrity.
- NSD 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum
- NSD 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R
- NSD 505 Nutritional Biochemistry Overview 1 Y  
Brief overview of structure/function of atoms and molecules of biological importance. Structure/function of proteins, carbohydrates and lipids in the complex biological environment. Introduction to metabolic pathways involved in utilization of energy nutrients.  
PREREQ: CHE 106.
- NSD 511 Nutrition Education 3 S  
A theoretical basis for nutrition education and opportunity to develop skills for a wide variety of individuals.  
PREREQ: NSD 225 AND 342.
- NSD 512 Nutrition Counseling 3 S  
A theoretical basis for counseling related to nutrition and increased opportunities to develop nutrition counseling skills for a wide variety of individuals.  
PREREQ: NSD 225 AND 342 AND 511.
- NSD 513 Nutrition Education Experience 1 S  
Prepare, disseminate and evaluate nutrition education curriculum for peer or other audiences. Provide nutrition education on campus and in the community through table events, group presentations, and media campaigns.  
PREREQ: NSD 511. R4, 5 credits maximum

NSD 515 Physical Assessment and Multiskilling for Dietitians 1 S  
Practice and skill validation in basic cardiovascular, respiratory, abdominal, muscular, and integumentary assessment. Diabetes and enteral feeding management.  
COREQ: NSD 481 OR 681.

NSD 555 Food, Culture and Environment 3 S  
Crosslisted with: WGS 555  
Understand the environment in which nutrition education and communication occur. The broader environment includes cultural diversity, the food system from farm to table, as well as functionality of food components.  
PREREQ: NSD 115 AND 225.

## Sport Management

SPM 101 Personal and Social Responsibility 3 Y  
Designed to assist students in coping with the transition and challenges of college, athletic life, and beyond. The course will promote students' ownership of their academic, athletic, personal and social responsibility.

SPM 199 The Super Bowl: Sport, Culture and Entertainment 3 IR  
The evolution and strategic brilliance that has allowed a football game to become a social phenomena with international audiences, business impact, and cultural implications.

SPM 200 Selected Topics in Sport Management 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SPM 201 Professional Development in Sport Management 1 S  
Using a blend of theory, skill development, and practical application, students will gain the knowledge and ability to successfully prepare for the Senior Capstone Experience

SPM 205 Principles and Contemporary Issues in Sport Management 3 S  
Overview of the sport industry through examination of problems and issues faced by contemporary sport managers. Unique characteristics of sport and resulting social and ethical responsibilities of sport managers are discussed using case study method.

SPM 215 Principles of Sales in Sport 3 S  
Sales promotions and management principles required for successful selling in the sport industry. Topics include identification of product segments and markets for ticket sales, promotions, sponsorship, and merchandise.  
PREREQ: SPM 205.

SPM 219 Catering 3 IR  
Planning, organizing, pricing and contracting for special events in off and on premise situations. Menu development and sanitation, staffing, equipment requirements and constraints. Practical application through catered functions throughout the semester.

SPM 224 Introduction to Sport Event Management 3 IR  
Students will gain knowledge of the principles and procedures for planning, managing, and implementing a variety of sporting events through an examination of: promotions, marketing, ticketing, hiring, event logistics, risk management, volunteer management, budgeting, and contracts.

SPM 225 Managing the Sport Organization 3 S  
Application of management concept and theories to sport organizations and the sport industry. Includes issues of leadership, ethics, organizational design, strategic planning, labor relations, diversity, globalization, and organizational changes.  
PREREQ: SPM 205.

SPM 270 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

SPM 290 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study based on a plan submitted by the student. R

SPM 295 Research Methodology 3 S  
Introduction to the basic elements of sport research with an emphasis on APA writing style.  
PREREQ: SPM 205 AND WRT 105; COREQ: MAT 221.

SPM 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SPM 305 Principles of Sport Hospitality Management 3 IR  
Hospitality industry as it relates to Sport Management. Examines the lodging, food and beverage, and travel/transportation logistics for sport participants and spectators.

SPM 309 Sports Arena Management 3 Y  
Discussion of growth of spectator sports; construction of arenas, stadiums, coliseums and convention centers; the complexities of managing facilities, products, services, labor, security and special events.

SPM 315 Sport Finance 3 S  
Analysis of the relationship between finance and the sport industry. Focuses on the financial and economic aspects of sport organizations and on current financial issues relating to professional, collegiate, and Olympic-level sport.  
PREREQ: SPM 205.

SPM 324 Sport Event Sponsorship 3 IR  
Overview of all elements of sport event sponsorships, including rationale, benefits, proposal development, and solicitations. Students will have the opportunity to apply theoretical concepts through proposal writing and solicitation of sponsorships to an existing sport event.

SPM 325 Sport Communications 3 S  
Role of communications in management, news release writing, working with and utilizing the various forms of media, the expanding use of the Internet in sport communications, crisis management, pitching stories, interviews, and ethical issues.  
PREREQ: SPM 205.

SPM 334 Sport Event Promotion 3 IR  
An overview of promotional principles used in marketing sport events with a focus on strategies of promotional campaigns, public relations, as well as promotional theory. Students will apply theoretical concepts to a promotional campaign for an existing sport event.  
PREREQ: SPM 205.

SPM 335 Sport Venue, Beverage, Catering and Food Management 3 IR  
An overview of food, beverage, and catering operations in a variety of sport events; crucial business aspects of catering operations in sport venues; instruction includes site visits.

SPM 340 Sports, Media and Society 3 IR  
The relationship between sport, media and the broader society. Students will explore the interrelationship of the principal mediums, gender, race, identity, sport and the society at-large.

PREREQ: SPM 205.

SPM 345 Technology in Sport Management 3 Y

A survey of communication and management technologies in the sport industry. Includes topics of information management, ticketing systems, scoreboard and video-board management, web and graphic design, publication layout and design, statistics management, and facilities operations.

PREREQ: SPM 205.

SPM 346 Sport in American Society 3 Y

This course will study the impact of sport on American society, and how our culture has influenced the development of sports, governing bodies, teams and leagues. This course puts today's sports landscape into historical perspective.

SPM 356 Olympic Sport Management 3 Y

Ancient and Modern Olympic Games' influence on contemporary sport. Business and competitive athletic aspects in history of Modern Games. Influences of and organization of International Olympic Committee, National Olympic Committees, and International Sports Federations.

SPM 357 Olympic Odyssey 3 Y

The Olympic movement from Ancient Games to modern Olympics is studied by visiting sites rich in international sport history. Governance, economics, culture and history of Olympic sport is examined in major Olympic cities throughout Europe.

SPM 381 International Sports Relations 3 IR

Through case studies, this course will examine sport's power as a tool in the domestic and international political arenas. Students will learn how sport can smother dissent, promote hyper-nationalism, protest injustice, and inspire better relations.

PREREQ: SPM 205.

SPM 395 Psycho-Social Issues of Sport 3 Y

An in-depth analysis of the psychosocial aspects of sport. Varied psychological and sociological topics as they relate to sport/exercise participation, performance, and enjoyment.

PREREQ: SPM 205.

SPM 415 Sport Law 3 S

Introduction and application of law to the sports industry. Legal concepts covered are agency, contract, labor, antitrust, tort, and criminal laws. Special focus on contemporary issues in sports including diversity, Title IX, drugs, and disabilities.

PREREQ: SPM 205.

SPM 444 Sports Marketing Management 3 S

Analytical examination of the sport industry from the strategic marketing perspective of the organizations involved. Emphasizing writing and proposal design.

PREREQ: SPM 205.

SPM 455 Senior Sport Management

Capstone 12 S

Supervised professional work experience in the sport industry through positions in professional and intercollegiate sports, arenas, sport marketing and management firms, and other sport entities. Analysis paper and oral presentation required.

PREREQ: SPM 201 AND SENIOR STANDING.

SPM 470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

SPM 490 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study based on a plan submitted by the student. R

SPM 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. PREREQ: SPM 201.

## Social Work

SWK 115 Introduction to Social Work 3 Y

Roles social workers assume in professional practice; social context within which practice occurs; major fields of practice; field trips to local agencies.

SWK 201 Social Work Practice Skills Laboratory I 3 Y

Laboratory exercises to develop basic social work skills with individuals, families, and groups. Relevant practice contexts and theoretical background provided for the exercises.

SWK 202 Social Work Practice Skills Laboratory II 3 Y

Laboratory exercises to develop basic social work skills with agencies, organizations, and communities. Relevant practice contexts and theoretical background provided for the exercises.

SWK 301 Foundations of Social Work Practice 3 Y

Experiential education using classroom instruction and community practice to integrate theory, skill development and practice experience. Establish competency in beginning generalist practice behaviors. Social Work majors only.

PREREQ: SWK 201 AND 202.

SWK 314 Social Welfare Policy and Services I 3 Y

Historical and contemporary social welfare policy and programs. Influence of social, political, and economic forces. Implications of prejudice and discrimination. Poverty and income maintenance alternatives.

SWK 315 Social Welfare Policy and Services II 3 Y

Structure and organization of public and voluntary income maintenance, health, mental health service delivery system. Cultural, racial, ethnic, gender diversity. Policy analysis frameworks. Social work roles, values.

SWK 326 Persons in Social Context 3 Y

Crosslisted with: WGS 326

Assessment of behavior of diverse individuals, groups, and social systems. Applying concepts from the biological, behavioral, and social sciences in identifying and understanding forms and causes of behavior.

SWK 328 Human Diversity in Social Contexts 3 Y

Crosslisted with: WGS 328

Diversity, including race, gender, sexual orientation and selected topics. Examines individual, group, and institutional identity formation. Theories of biopsychosocial development, reference group affiliation, social stratification, oppression, and institutional discrimination. Implications for social work practice.

SWK 357 Processes of Aging 3 Y  
Double Numbered with: SWK 657  
Intrinsic aging processes, changing needs, and characteristics of aging populations, and the impact of age related forces in American society, with special attention to aged groups disadvantaged by virtue of race, ethnicity, gender, sexual orientation, disability, and poverty. Additional work required of graduate students.

SWK 361 Foundations of Social Work Research 3 Y  
Research methods including problem formulation, measurement, sampling, research design, data collection and analysis, and report preparation. Application of research methods to critical analysis of research reports and to issues associated with evaluation of social work practice.

SWK 400 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SWK 401 Strategies of Social Work Intervention I 3 Y  
Preparation for beginning social work interventions. Theories of practice and rehearsal of problem solving and communication skills with individuals, families, and groups in client, target, and action systems. Concurrent field placement.  
PREREQ: SWK 301 AND (SWK 326 OR WGS 326) AND (SWK 328 OR WGS 328);  
COREQ: SWK 435 AND 436.

SWK 402 Strategies of Social Work Intervention II 3 Y  
Design, implementation, and evaluation of intervention strategies in social work practice. Intervention with individuals, families, and groups in the context of agencies, organizations and communities. Concurrent field practicum.  
PREREQ: SWK 401 AND (SWK 326 OR WGS 326) AND (SWK 328 OR WGS 328);  
COREQ: SWK 445 AND 446.

SWK 435 Field Practicum I 5 Y  
Field practice experience in a selected social service agency setting to apply and integrate skill, cognitive, and affective learning within a formalized service system.  
COREQ: SWK 401 AND 436.

SWK 436 Field Seminar I 1 Y  
Integration of theory and practice through cognitive examination of students actual field experience associated with SWK 435.  
COREQ: SWK 401 AND 435.

SWK 437 LGBTQ Health and Well Being 3 SI  
Crosslisted with: HTW 437, QSX 437  
Application of concepts from an ecological framework to understand the micro, mezzo, macro, and social forces that impact the health and well-being of lesbian, gay, bisexual, transgender and queer populations.

SWK 445 Field Practicum II 5 Y  
Field practice experience in selected social service setting to apply and integrate skill, cognitive and affective learning within a formalized service system.  
PREREQ: SWK 401 AND 435 AND 436;  
COREQ: SWK 402 AND 446.

SWK 446 Field Seminar II 1 Y  
Integration of theory and practice through cognitive examination of student's actual field experiences associated with SWK 445.  
PREREQ: SWK 401 AND 435 AND 436;  
COREQ: SWK 402 AND 445.

SWK 450 Topics in Gerontology 1-6 SI  
Modules focused on current issues, developments, and methods in gerontological social work. Emerging developments in theory, legislation, programming, and priorities among selected aging populations. Topics vary each semester. R

SWK 458 Practice and Policy in Adult Corrections 3 Y  
Double Numbered with: SWK 658  
Overview of adult corrections. Criminal justice policies related to ethnicity, poverty, gender. Substance use, health and disability, and violence are explored within the context of correctional setting and offender populations. Applications to social work practice.

SWK 470 Experience Credit 1-6 SI  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

SWK 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study based on a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

SWK 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

# Faculty

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Keith A. Alford, Associate Professor, Social Work  
Ph.D., Ohio State University, 1997

Colleen Baish Cameron, Professor of Practice, Child and Family Studies  
M.Ed., University of Nevada, 2003

Tim Barr, Instructor, Food Studies  
B.S., Rochester Institute of Technology, 1971

Anne C. Bellows, Professor, Food Studies  
Ph.D., Rutgers University, 1999

Dessa Bergen-Cico, Assistant Professor, Public Health  
Ph.D., Syracuse University, 1992

Lynn S. Brann, Assistant Professor, Nutrition  
Ph.D., University of Tennessee, 2003

Maria Brown, Assistant Research Professor, Social Work  
Ph.D., Syracuse University, 2010

Jane Burrell Uzcategui, Instructor, Nutrition  
M.S., Finch University of Health Related Sciences, 2002

Rick Burton, David B. Falk Endowed Professor of Sport Management  
M.B.A., Marquette University, 1991

James R. Byrne, Professor of Practice, Public Health  
J.D., University of Connecticut, 1985

Paul Caldwell, Associate Professor, Social Work  
Ph.D., Brandeis University, 1995

D. Bruce Carter, Associate Professor, Child and Family Studies  
Ph.D., University of Virginia, 1980

Deborah Coolhart, Assistant Professor, Marriage and Family Therapy  
Ph.D.

Kenneth N. Corvo, Associate Professor, Social Work  
Ph.D., Case Western Reserve University, 1993

Luvenia W. Cowart, Professor of Practice, Public Health  
Ed.D., Syracuse University, 1980

Ellen deLara, Associate Professor, Social Work  
Ph.D., Cornell University, 2000

Thom deLara, Professor of Practice, Chair, Marriage and Family Therapy  
M.S.W., Syracuse University, 1975

Kendra DeLoach McCutcheon, Assistant Professor, Social Work  
Ph.D., University of South Carolina, 2010

Dennis Deninger, Professor of Practice, Sport Management  
B.A., Syracuse University, 1973

L. Beth Dixon, Professor, Nutrition  
Ph.D., Pennsylvania State University, 1994

Joseph P. Fanelli, Instructor, Child and Family Studies  
Ph.D., Syracuse University, 1980

Rashmi Gangamma, Assistant Professor, Marriage and Family Therapy  
Ph.D., Ohio State University, 2008

Alejandro Garcia, Professor, Social Work  
Ph.D., Brandeis University, 1980

Mary E. Graham, Professor, Sport Management  
Ph.D., Cornell University, 1995

Brooks B. Gump, Falk Family Endowed Professor of Public Health  
Ph.D., University of California, San Diego, 1995

Tanya M. Horacek, Professor, Nutrition  
Ph.D., University of Nebraska, 1996

Kimberly Johnson, Instructor, Food Studies  
M.S., Syracuse University, 2008

Pamela J. Johnson, Assistant Professor, Social Work  
Ph.D., Case Western Reserve University, 2010

Eunjoo Jung, Assistant Professor, Child and Family Studies  
Ed.D., Illinois State University, 2004

Irene Kehres, Associate Dean, David B. Falk College of Sport and Human Dynamics, Professor of Practice, Child and Family Studies  
Ph.D., Syracuse University, 2004

Mary Ann P. Kiernan, Instructor, Food Studies  
M.B.A., Syracuse University, 2012

Eric Kingson, Professor, Social Work  
Ph.D., Brandeis University, 1979

Karen E. Kirkhart, Professor, Social Work  
Ph.D., University of Michigan, 1979

Ambika Krishnakumar, Associate Professor, Child and Family Studies  
Ph.D., University of Tennessee, 1997

Sandra D. Lane, Professor, Public Health  
Ph.D., University of California at San Francisco and Berkeley, 1988

Eileen Lantier, Senior Associate Dean, David B. Falk College of Sport and Human Dynamics, Associate Professor, Public Health  
Ph.D., Syracuse University, 1992

David Larsen, Assistant Professor, Public Health  
Ph.D., Tulane University, 2013

Teresa MacDonald, Instructor, Child and Family Studies  
Ph.D., Syracuse University, 2007

Katherine McDonald, Associate Professor, Public Health  
Ph.D., University of Illinois at Chicago, 2006

Chad McEvoy, Professor, Sport Management  
Ed.D., University of Northern Colorado, 2002

Mary Ann Middlemiss, Associate Professor, Public Health  
Ph.D., Syracuse University, 1987

Laura-Anne Minkoff-Zern, Assistant Professor, Food Studies  
Ph.D., University of California, Berkeley 2012

Deborah J. Monahan, Associate Dean, David B. Falk College of Sport and Human Dynamics, Professor, Social Work  
Ph.D., University of Arizona, 1985

Robert P. Moreno, Associate Professor, Chair, Child and Family Studies  
Ph.D., Stanford University, 1995

Nancy R. Mudrick, Professor, Social Work  
Ph.D., Brandeis University, 1976

Matthew Mulvaney, Associate Professor, Child and Family Studies  
Ph.D., University of New Hampshire, 2004

Tracey Musarra Marchese, Professor of Practice, Social Work  
M.S.W., Rutgers University, 1993

Lutchmie Narine, Associate Professor, Public Health  
Ph.D., University of Toronto, 1993

Lisa Olson-Gugerty, Instructor, Public Health  
Ph.D., Nova Southeastern University, 2005

Rodney Paul, Professor, Sport Management  
Ph.D., Clemson University, 2000

Gina Pauline, Associate Professor, Sport  
Management  
Ed.D., Ball State University, 2006

Jeff Pauline, Associate Professor, Sport  
Management  
Ed.D., West Virginia University, 2001

Sudha Raj, Associate Professor, Nutrition  
Ph.D., Syracuse University, 1991

Kamala Ramadoss, Assistant Professor,  
Child and Family Studies  
Ph.D., Purdue University, 2008

Rachel Razza, Assistant Professor, Child and  
Family Studies  
Ph.D., Pennsylvania State University, 2005

Jaipaul L. Roopnarine, Professor, Jack  
Reilly Professor of Child and Family Studies  
Ph.D., University of Wisconsin, 1980

Patrick T. Ryan, Instructor, Sport  
Management  
B.S., State University of New York at  
Geneseo, 1975

Thomas J. Schur, Instructor, Marriage and  
Family Therapy  
MSW, Syracuse University, 1979

Sarah H. Short, Professor, Nutrition  
Ph.D., Syracuse University, 1975

Merril Silverstein, Marjorie Cantor  
Endowed Professor in Aging, Social Work  
Ph.D., Columbia University, 1990

Carrie Jefferson Smith, Associate  
Professor, Director, Social Work  
D.S.W., Howard University, 1998

Yvonne Smith, Assistant Professor, Social  
Work  
Ph.D., University of Chicago, 2013

Matthew Spitzmueller, Assistant Professor,  
Social Work  
Ph.D., University of Chicago, 2014

Kay Stearns Bruening, Associate Professor,  
Nutrition  
Ph.D., New York University, 1997

Linda Stone Fish, Falk Family Endowed  
Professor of Marriage and Family Therapy  
Ph.D., Purdue University, 1985

Maureen Thompson, Associate Professor,  
Public Health  
Ph.D., Syracuse University, 1990

Elizabeth Brown Thoreck, Instructor, Social  
Work  
LMSW, Syracuse University, 1993

Michael D. Veley, Rhonda S. Falk Endowed  
Professor, Director and Chair, Sport  
Management  
M.P.S., Cornell University, 1982

Margaret Voss, Professor of Practice,  
Nutrition  
Ph.D., Syracuse University 2002

Patrick T. Walsh, Assistant Professor, Sport  
Management  
Ph.D., University of Minnesota, 2008

Dyane Watson, Instructor, Marriage and  
Family Therapy  
Ph.D., Michigan State University, 2007

Evan Weissman, Assistant Professor, Food  
Studies  
Ph.D., Syracuse University, 2012

Rick Welsh, Chair, Public Health, Food  
Studies and Nutrition, Professor, Food Studies  
Ph.D., Cornell University, 1995

Jennifer Wilkins, Daina E. Falk Professor  
of Practice in Nutrition  
Ph.D., Washington State University, 1991

John Wolohan, Professor, Sport  
Management  
J.D., Western New England University, 1992

# School Of Information Studies

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Liz Liddy, Dean  
Hinds Hall  
ischool.syr.edu

## About The School

The Syracuse University School of Information Studies (iSchool) is a leading University center in advancing both the theory and practice of the information professions, based on an interdisciplinary view of information phenomena. The iSchool at Syracuse—the original information school—is a leader in the information field, which lies at the intersection of management, technology, and people. The iSchool offers an innovative curriculum that is continuously updated to meet future industry trends and incorporate rapidly changing technologies. The iSchool at Syracuse University is currently ranked No. 1 in information systems, according to U.S. News & World Report.

Our approach stands out from other institutions that offer computer science, management, information science, and related programs in that our focus is on users and user information needs as a starting point for integrating information and information technology into organizations. The faculty combines expertise in information systems, linguistics, computer science, library science, education, business management, school media, digital literacy, management information systems, telecommunications, wireless and emerging technologies, and communication. The faculty are very active in research topics that reflect their diverse intellectual backgrounds and interests.

### The Central Themes of the School of Information Studies

Five basic themes express the school's research and teaching mission. These themes define our vision of the information field and provide a focus for both the design of our curriculum and our sponsored research.

### The Interrelationship Among the Five Central Themes of the School of Information Studies:

- Information and Telecommunications Management considers information and technologies within organizational contexts.
- Information in the Marketplace relates how organizations interact with each other and exchanging information and products.
- Information Representation and Retrieval forms the building blocks of information systems as well as the processes necessary to enable humans to access and use information.
- Human-Information Interaction focuses on people and how the individual or group seeks and uses the products of information representation and retrieval.
- Information and Society considers the implications and issues for culture and society of the broad scope of information systems and technologies.

The School of Information Studies offers the following degree programs:

#### Undergraduate

- Bachelor of Science in Information Management and Technology
- Bachelor of Science in Systems and Information Science
- Dual Major with the Martin J. Whitman School of Management
- Dual Major with the S.I. Newhouse School of Public Communication
- Minor in Information Management and Technology
- Minor in Global Enterprise Technology
- Minor in Information Technology Design & Startups

#### Graduate

- Master of Science in Library and Information Science
- Master of Science in Library and Information Science, School Media Specialization
- Master of Science in Information Management
- Master of Science in Telecommunications and Network Management
- Executive Master of Science in Information Management
- Ph.D in Information Science and Technology
- Doctorate of Professional Studies in Information Management

#### Certificates of Advanced Study

- Cultural Heritage Preservation
- Data Science



- eGovernment Management and Leadership
- Information Security Management
- Information Systems and Telecommunications Management
- School Media

## Message From The Dean

Elizabeth D. Liddy

The greatest challenge facing us in our increasingly digital world is the potential for the wealth of information that now exists to create a poverty of attention. We as a society need to better organize, represent, locate, and provide information efficiently and effectively, or risk being consumed by this overabundance of information. That's where the Syracuse University School of Information Studies (iSchool) makes one of its most significant contributions.

Our vision is to expand human capabilities through information. What matters is that we make a difference in everything we do, and that this difference is a positive one affecting individuals, organizations, and ultimately society. We intend to add value to society through education and through the information, systems, and services we help to create. We pledge to do this ethically, competently, professionally, with respect for the individual, and with passion.

We connect people to the information they seek so they can make the best decisions for their organizations—whether their business is commerce, government, entertainment, communications, medicine, education, or human services. All of these organizations make decisions and take actions based on the information that is known. Our graduates ensure that they have the most accurate and appropriate information from which to base those decisions.

Originally founded as a library science school in 1896, our school was the first in its field to embrace the information revolution by becoming the Original Information School in 1974.

Today, the iSchool is ranked No. 1 in information systems for library and information schools by U.S. News and World Report and serves as a model for other information schools that are emerging around the globe.

Our expertise in information management is attracting the attention of companies as well as governments and organizations around the globe that compete to recruit our graduates. Our faculty members are working with global leaders in the information technology industry in research and curriculum development in such areas as green data centers, global collaboration, big data, and identity management and access control.

We educate our library and information science students to take leadership positions in and to develop forward-looking policies and guidelines for libraries and other organizations. Our school media faculty members and graduates are changing policies to improve the quality of education and to motivate learning in students of all ages.

Our faculty and alumni of the telecommunications and network management program are reshaping Internet governance and telecommunications policies around the globe, securing our networks and information systems, and expanding access to information communication and technology through innovative product design and implementation.

Our faculty members are masters of many academic fields and work across traditional disciplinary lines, and they teach our students to do the same. This unified diversity is the strength of the school as well as of the information field itself. The information profession is the field of the future, and we invite you to become part of this future. Let us provide you with the skills to achieve positive change at the intersection of management, technology, and people.

Join us!

## Vision And Values

The School of Information Studies, established in 1896 and renamed as the first Information School in 1974, has a long tradition of leading innovation and change. Our ideals and values are the foundation for our success.

### Our Vision

To expand human capabilities through information.

What matters is that we make a difference in everything we do, and that this difference is a positive one affecting individuals, organization, and ultimately society. We intend to add value to society through education and through the information, systems, and services we help to create. We pledge to do this ethically, competently, professionally, with respect for the individual, and with passion.

### Our Values

- **Inquiry.** We are dedicated to exploration. Exploration and innovation are critically important to the information field and a vital part of our school. We share the university's vision of being a leading student-centered research university by dedication to being a student-centered research college. We promote this aim through discovery, development, application, integration, and active learning.
- **Individuality.** We are committed to the individual. High-performance organizations are composed of high-performance individuals. Our faculty, staff, students, and partners are risk takers who have a high tolerance for ambiguity. While we value our work together in a highly spirited team atmosphere, we value the individual, and respect individuality as such. Our organizational norms dictate that we are relentless in attacking

problems, but supportive in valuing individual differences.

- **Diversity.** We are intellectually diverse. Complex problems require multidimensional and interdisciplinary analysis and solutions. The school fosters a multiplicity of “voices” addressing the important areas of teaching and research in the information field. The school seeks faculty from many related disciplines who respect a diversity of opinion and perspective, and thrive on the tension of discussion and debate.
- **Adaptability.** We are adaptive and able to evolve. Today's competitive, complex, and ever-changing environment requires innovation, flexibility, and rapid responses. Our initiatives and developmental processes are driven by a Do-Learn-Revise model. This model encourages entrepreneurship and risk-taking, celebrating success as a community achievement and embracing challenge as a learning opportunity.
- **Unity.** We are a faculty of one. The faculty sits as a whole, not as individuals or groups who represent one specific program in which they teach or ascribe affiliation. Students and faculty are challenged to benefit from the paradox of a single information field manifested in many professional expressions. Students and faculty learn from each other by shared intellectual experiences and by appropriate curriculum integration across the degree programs.
- **Continuity.** We are an enduring organization. With over a century of innovation and leadership behind us, the school makes an enduring contribution to our field. In building our school we concentrate on building an enduring organization that goes beyond the influence of any particular dean or member of the faculty.

#### Our Goal

To transform the information field through leadership in research, development, and education.

#### Our Points of Distinction

- Whatever we do, we do through information and for people
- Through information we transform individuals, organizations, and society
- We recognize that information technology and management processes are means and not ends

## Research Centers

Many of the faculty conduct their research individually and in small, flexible, interdisciplinary teams. For certain specialized areas and cross-unit collaborations, however, research centers and laboratories provide a venue that supports long-term commitment to a particular research area. The following research centers and laboratories are located in the school:

- **Center for Convergence and Emerging Network Technologies** CCENT The mission of CCENT is to understand the future of networking technologies, and to engage students, faculty and industry in the process of defining and shaping that future. CCENT currently has setup four testbeds for studying emerging network technologies, including wireless networking, network security, unified communication systems, Internet protocol version 6.
- **Center for Digital Literacy** CDL is an interdisciplinary, collaborative research and development center at Syracuse University dedicated to (1) understanding the impact of information, technology, and media literacies on children and adults (particularly those from underserved populations) in today's technology-intensive society and (2) studying the impact having or not having these literacies has on people, organizations, and society.
- **Center for Information and Systems Assurance and Trust** Established in June 2009, CISAT promotes the exploration of new ideas in information and systems assurance and trust by bringing together faculty from seven schools and colleges at Syracuse University: the School of Information Studies, L.C. Smith College of Engineering and Computer Science, College of Law, Maxwell School of Citizenship and Public Affairs, Newhouse School of Public Communications, Whitman School of Management, and the College of Arts and Sciences, who share a common vision of improving society through the creation of trustworthy systems.
- **Center for Natural Language Processing** CNLP advances the development of human-like language understanding software capabilities for government, commercial, and consumer applications.
- **Information Institute of Syracuse** IIS is a long standing research center in the areas of education, technology and librarianship. Its projects bring together universities, government agencies, and private enterprises to promote easy access to high quality educational information to a diverse user population.
- **Internet Governance Project** IGP is an alliance of academics that puts expertise into practical action in the fields of global governance, Internet policy, and information and communication technology.
- **Because Play Matters** This research lab explores the intersection of games and libraries, and provides advice to librarians about the most appropriate gaming activities for different demographic groups and library goals and provide advice to the gaming industry about the needs of libraries and schools regarding gaming.

Our faculty members embrace innovation and entrepreneurial thinking in their research. Learn more about our entrepreneurial research, the Raymond von Dran Innovation and Disruptive Entrepreneurship Accelerator (IDEA) and the Syracuse Student Sandbox.

## Hinds Hall--Academic Facilities

Hinds Hall, located on the Main Campus Quad, is the home of the School of Information Studies. This four-story, 48,000 square-foot building showcases the latest in technology and design, including collaborative work rooms, state-of-the-art classrooms, research centers, and a student lounge with a cafe that features coffee, pastries and sandwiches.

Equipped with high-performance wireless networking, the facility supports virtual collaborations with global partners and includes an enhanced computer laboratory infrastructure with four main labs:

- **The iLab**—Accommodating up to 40 students, this is the signature computer lab, featuring dual display screens for increased productivity in a

variety of computer applications.

- iTELL (Information Technology Experiential Learning Lab)—Students get hands-on experience working with the latest telecommunications equipment on their own servers and networking devices in the iTELL Data Center.
- iSysLab (Information Systems Lab)—Dedicated to the iSchool's more technical classes, this lab features a variety of hardware and software for students to use.
- Innovation Studio—This multi-purpose, highly reconfigurable 1,000-square-foot space is modeled after an artist's studio to promote collaboration, idea generation, and rapid prototype development for student and faculty teams. A video studio with editing bays is attached.

The ICE Box, a space for innovation, collaboration, and entrepreneurship, is a newly renovated iSchool work area in Hinds Hall. Built during the summer of 2013, the space has become a model for blending creative design and technology within a community environment. The ICE Box is a merging of physical space for co-working and hosting events, and resources hub supporting and connecting entrepreneurship opportunities both on- and off-campus. Originally designed to allow for the spontaneous expression of creativity, the ICE Box has become a place where students collaborate on innovative products and services, meet with faculty and professionals, mentor each other on the nuances of their classes and even complete their homework. The space has been built with the new economy in mind and the understanding that the best ideas flourish when conversations include diverse parties from multiple colleges.

The School of Information Studies' home in Hinds Hall received a 2008 American Institute of Architects Central New York Chapter Citation Award for the redesign and renovations conducted by Ashley McGraw Architects of Syracuse.

## Undergraduate Education

Syracuse University School of Information Studies (iSchool) undergraduates are innovative, problem-solvers who enjoy interacting with people as well as exploring new information technologies such as iPhones, iPads, wireless networks, and computers as well as social media tools like Facebook, YouTube, Foursquare, blogs, and Twitter.

The iSchool offers the undergraduate B.S. in Information Management and Technology, which combines technology, business, and communications courses to educate 21st century professionals who can enter virtually any industry upon graduation.

The iSchool also offers the undergraduate B.S. in Systems and Information Science, a shared program with the College of Engineering and Computer Science.

Our flexible curriculum allows you to pursue a broad array of intellectual areas while providing a core knowledge of the technical, organizational, and communication skills necessary to succeed in our networked society. You can craft your education to fit your individual interests, and we offer dual degree programs with SU's Whitman School of Management and S.I. Newhouse School of Public Communications.

Students often combine their iSchool education with another passion such as art and design, journalism, sports management, marketing, political science, or a foreign language. The small-school atmosphere provides individualized attention to each student while the larger Syracuse University community offers a rich array of additional resources.

The curriculum encourages entrepreneurship and out-of-the-box thinking while teaching students the organizational and communication skills necessary to thrive in the corporate and professional work environment.

Our students benefit from the school's consistent updates to the technology and creative spaces in Hinds Hall, centrally located on the Quad in Hinds Hall. The sophisticated facility has collaborative learning centers with the latest technology and equipment, and informal spaces for students to mingle and study. A recent renovation includes the ICE Box area on the second floor, dedicated as a space for innovation, collaboration, and entrepreneurship. This area features flexible seating, private meeting rooms, whiteboard walls, and large tables to support collaborative learning. Our internationally prominent faculty members interact with students in small classes, research projects, and supervised internships.

Students from other schools and colleges at SU often enroll in one of the iSchool's three minors:

- Global Enterprise Technology: Teaches students to develop and manage complex, large-scale operating systems used by major companies around the world.
- Information Management and Technology: Provides knowledge of information technology and related information and communication problems that makes students more marketable, no matter their career.
- Information Technology, Design, and Startups: Provides basic knowledge and skills required to run a successful business including how to develop and refine new ideas -- the seeds of innovation -- and turn those ideas into a viable venture.

## Accreditation

The Master of Science in Library and Information Science within Syracuse University's School of Information Studies (iSchool) is accredited by the American Library Association. ALA accreditation indicates that the program has undergone a self-evaluation process, been reviewed by peers, and meets the standards established by the American Library Association and Committee on Accreditation.

The iSchool is also a registered Project Management Institute Education Provider, meaning that the school's curriculum meets an international standard of

best practice in the field of project management.

## iSchools Organization

We are a founding member of the iSchools Organization an educational organization consisting of deans from over 50 leading information schools across the globe who have joined together to build awareness of, support for, and involvement with the information field. The organization holds a yearly gathering, the iConference, to provide a forum in which information scholars, researchers and professionals share their insights on critical information issues in contemporary society.

## Academic Offerings

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### Minor In Global Enterprise Technology

#### MINOR IN GLOBAL ENTERPRISE TECHNOLOGY

Contact: David Dischiave, Program Director, 225 Hinds Hall, (315) 443-2911, [ddischia@syr.edu](mailto:ddischia@syr.edu)

Website: Global Enterprise Technology

#### Overview:

The 18-credit interdisciplinary minor in Global Enterprise Technology (GET) will prepare students from any undergraduate major to understand how one develops and manages global enterprise information systems, such as those used by the banking, insurance, medical, and retail industries. The minor is flexible enough so that students from finance and technology majors can add to their current knowledge, and students from non-technical backgrounds, including the humanities, can develop foundational knowledge to pursue careers in industries with large-scale systems. Since these systems are central to most global companies, gaining an understanding of how enterprise systems are developed is useful to students entering the workforce across many careers – including finance, business strategy and technology focused careers.

#### Admission:

Applicants must have a grade point average of at least 3.0. Depending on available spaces, students with GPA's below 3.0 may be considered, however, there may be times when GPA requirements will be higher than 3.0 due to space restrictions.

Students considering the minor may delay enrolling until the third year of study, but are encouraged to meet with an Information Studies advisor during the first or second year.

The 18-credit minor program in Global Enterprise Technology can be taken with any SU major, with the approval of the student's home college.

#### Curriculum:

##### I. Primary Core (6 credits required)

GET 234 Effective Collaboration in a Globally Distributed Enterprise (1.5 credits)

GET 239 Enterprise Technologies (3 credits)

GET 236 Enterprise Data Analysis: Tools and Techniques (1.5 credits)

##### II. Secondary Core (6 credits required)

GET 302 Global Financial Systems Architecture (3 credits)

GET 305 Globalization Culture and IT (3 credits)

GET 336 Advanced Enterprise Data Analysis: Tools and Techniques (1.5 credits)

GET 365 Business Value of IT (1.5 credits)

GET 375 Managing IT Contracting (1.5 credits)

##### III. General Electives and Specializations (6 credits required)

#### Data Management

IST 352 Analysis of Organizational Systems (3 credits)

ST 359 Introduction to Database Management Systems (3 credits)

IST 469 Advanced Database Management Systems (3 credits)

#### Enterprise Application Development

GET 433 Enterprise Systems (3 credits)

CIS 453 Software Specification and Design (3 credits)

CIS 454 Software Implementation (3 credits)

#### Technology Infrastructure

GET 235 Leveraging Emerging Technologies (1.5 credits)

GET 434 Global Computing Challenges (3 credits)

GET XXX Any (1.5) credit course, not previously counted

General Electives (Any GET special topics courses can count toward General Electives)

GET 486 Independent Technology Education (3 credits)

GET 487 GlobalTech (3 credits)

GET 471 GET Internship

For students participating in the GET Immersion Experience program, the following course plan will meet the GET Minor requirements:

I. Primary Core (6 credits required)

GET 234 Effective Collaboration in a Globally Distributed Enterprise (1.5 credits)

GET 239 Enterprise Technologies (3 credits)

GET 236 Enterprise Data Analysis: Tools and Techniques (1.5 credits)

II. Immersion Experience (9 credits required)

GET 410 Contemporary Issues in Global Enterprise Technology (9 credits, required)

GET 472 Professional Experience in GET (3 credits, optional)

III. Electives (optional, 3 credits if needed to reach 18 credits)

GET 302 Global Financial Systems Architecture (3 credits)

GET 305 Globalization Culture and Information Technology (3 credits)

GET 336 Advanced Enterprise Data Analysis: Tools and Techniques (1.5 credits)

GET 365 Business Value of IT (1.5 credits)

GET 375 Managing IT Contracting (1.5 credits)

GET 486 Independent Technology Education (3 credits)

GET 487 GlobalTech (3 credits)

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## B.S. In Information Management And Technology

### B.S. IN INFORMATION MANAGEMENT AND TECHNOLOGY

Contact: Susan Dischiave, Program Director, 314 Hinds Hall, 315-443-5611, [sadischi@syr.edu](mailto:sadischi@syr.edu)

Website: B.S. in Information Management & Technology

#### Introduction:

The School of Information Studies offers a bachelor of science degree (B.S.) in Information Management and Technology. This degree program provides a broad introduction to information management, services, and technologies, coupled with a firm foundation in the arts and sciences. Students learn the most effective ways to find information, assess people's needs, and design and manage systems that meet those needs.

Coursework in information management and technology teaches students how to locate and acquire information resources; select, manage, and use information technology; and help organizations use information resources to work more efficiently and more effectively. The overarching emphasis is on the usefulness of these information systems to people. Therefore, the program is balanced with management, communications, and liberal arts courses.

#### Admission:

Students may be admitted into the B.S. in Information Management and Technology program in the first year.

For students transferring into the B.S. degree program from another university, a grade point average of at least 3.0 is required.

Internal transfer students are routinely admitted to the BS in IM&T program with a GPA of 3.2 or higher. Please visit the Student Services Suite in Hinds 114 for an application and dates and times for the next iSchool information sessions.

#### Dual Enrollment:

A formal dual program of study is available in cooperation with the Martin J. Whitman School of Management and with the S.I. Newhouse School of Public Communications. A student may apply directly to the dual programs as an incoming first-year student or may add the dual, as a current student, after completion of the dual degree admission requirements.

Dually enrolled students must fulfill the degree requirements of both schools. Upon graduating, they receive a bachelor's degree (one diploma) conferred jointly by the two schools.

#### Information Studies / Management

Students who select a dual degree program of study with the Martin J. Whitman School of Management often seek a working knowledge of business with the technical training in information systems to set them apart from standard business school graduates. Job opportunities are plentiful and get more exciting as the advances in technology prepare businesses for competition in the global marketplace. Technology coupled with business is the ultimate preparation for the job market in the future. Students can combine the information

management and technology major with any of the Whitman majors: accounting, entrepreneurship and emerging enterprises, finance, management, marketing management, retail management, and supply chain management.

The School of Information Studies is the home college. To complete the dual degree program with the Whitman School, students must complete a minimum of 132-136 credits for graduation.

#### Information Studies / Public Communications

Online news sites, e-newsletters, video downloads, and blogs are competing with traditional sources of information such as newspapers and magazines, other printed materials, television, and radio. New communications professionals understand the need to be savvy in emerging technologies, and many aspiring professionals enroll in the dual degree program in information management and technology and one of the majors offered through the S.I. Newhouse School of Public Communications. Students may combine the information management and technology degree major with any of the Newhouse majors, including advertising; broadcast and digital journalism; graphic arts; magazine; photography; public relations; and television, radio, and film. This 128-141 credit dual program of study prepares students to work in the information technology intense world of public communication. Newhouse is the home college.

#### Overview:

The B.S. in Information Management and Technology teaches students to understand the value of information to society, organizations, and individual professionals. Students are prepared to analyze the information needs of individuals and organizations and to design and manage information systems that meet specific needs.

Information is now recognized by many organizations as their most valuable resource. Information professionals are employed by a variety of organizations, including governments, health care facilities, research institutes, legal services, large and small retail industries, banks and investment companies, sports and entertainment industries, consulting firms, colleges and universities, and international agencies.

The study of information focuses on the use and users of information as much as upon the systems that manipulate it. Students must have a broad education in the sciences, social sciences, and humanities, as well as in the areas of information management and information technologies.

All students take an information management and technology primary core of 24-25 credits, which includes basic courses in information technology, information-based organizations, and information management. Students select five additional information management and technology courses from the following concentrations:

- Information Security,
- Project Management,
- Network Management,
- Web Design and Management,
- Database Management; and
- Digital Retail Strategies

Courses within the information management and technology curriculum prepare students for a wide array of positions that:

- perform organizational information needs analysis and information planning;
- formulate information and information technology policies and procedures;
- conduct research and development in information technologies appropriate to support an organization's mission;
- facilitate technology transfer between organizational units;
- monitor and evaluate information resources, including information sources, services, and technologies;
- coordinate information resources management across and outside an organization; and
- budget for and acquire information resources.

Students may further focus on an area of interest by incorporating one or more concentrations into their coursework, thus enhancing their resumes and marketability.

As information specialists are in high demand in the marketplace, careers are not limited to specific disciplines or industries. Our graduates are highly sought for such positions as information security managers, information management consultants, web design and development managers, database developers, project managers, process managers, database designers and managers, systems and design analysts, network administrators and managers, technology evaluators, user training and support technicians, and many other roles.

Some students may prefer to continue their education after receiving the bachelor's degree in order to pursue a professional career in such fields as business, education, government, law, librarianship, or medicine. The B.S. degree is an excellent pre-professional degree in that it combines a broad liberal arts education with computer and information technology skills; information seeking, use, and presentation skills; and a conceptual understanding of information's role in the modern society and economy.

Students graduating with a major or minor from the iSchool can petition to waive up to 6 credits toward one of the school's master's degree programs, thereby reducing the number of credits needed to complete the graduate degree.

Information management and technology majors often complement their programs with a minor. A sample of minors include the following:

- Accounting
- Biology (especially for pre-med)
- Chemistry (especially for pre-med)
- Economics
- Entrepreneurship and Emerging Enterprises
- Finance
- Management Studies
- Marketing
- Philosophy
- Policy Studies
- Public Communications
- Sport Management

#### Learning Outcomes:

The educational objectives of the undergraduate program in information management and technology are to enable graduates to do the following:

- Maintain knowledge of the functional areas of information management and their application to a variety of organizational contexts.
- Use critical thinking skills and creativity to understand the uses of information for solving complex problems.
- Understand the uses of information technologies for solving human problems.
- Accomplish goals through effective leadership and teamwork.
- Understand the need for and use of information in relation to ethical, societal, regulatory, and technological issues.
- Clearly and effectively communicate ideas in writing and orally.
- Use relevant technologies appropriate to solve problems.
- Recognize the need for and an ability to engage in lifelong learning.

#### Curriculum:

To graduate, students must complete 120 credits and must maintain at least a 2.5 grade point average in the information studies core.

The 120 credits must be distributed as follows:

- 39-40 credits for the Information Management and Technology Major
  - 24-25 credits in the Information Management & Technology Primary Core
  - 15 credits of Information Management & Technology Electives
- 21-23 credits in Skills Electives
- 12 courses / 36 credits in Arts and Sciences Divisional Requirements
- 21-24 credits in General Electives

#### I. Information Management and Technology Major (39 to 40 credits)

##### A. Information Management and Technology Primary Core (24 to 25 credits)

###### Introductory Courses:

IST 101 Freshman Forum (1 credit) (first-year students only)  
 IST 201 Transfer Student Forum (1 credit) (external transfer students only)  
 IST 195 Information Technologies

###### Technology Courses:

IST 233 Introduction to Computer Networking  
 IST 346 Operating Systems Administration  
 IST 359 Introduction to Database Management Systems

###### Management Courses:

IST 335 Introduction to Information-Based Organizations  
 IST 352 Information Analysis of Organizational Systems  
 IST 445 Managing Information Systems Projects  
 IST 466 Professional Issues in Information Management and Technology

##### B. Information Management and Technology Electives (15 credits)

Students must complete five additional IST courses to fulfill their Information Management and Technology elective requirement. Any 3 credit IST course outside of the primary core may be taken to fulfill this requirement. GET courses may be counted by petition as Information Management & Technology electives if they are not already being counted toward the Global Enterprise Technology minor. IDS classes may be taken as General Electives.

As students define their professional interests, they may choose coursework to match their planned career paths. Therefore, it is recommended students use their Information Management & Technology electives to also complete up to two concentrations from the list below.

Concentrations:

Information Security Management:

Required:  
IST 323 Introduction to Information Security

Electives:  
IST 400 Database Security  
IST 425 Enterprise Risk Management  
IST 429 Organizational Information Security  
IST 452 Advanced Computer Networking  
IST 522 Applied Information Security

Project Management:

Required:  
IST 325 Information Management Consultation

Electives:  
IST 419 Applied Economics for Information Managers  
IST 422 Acquiring, Procuring, and Financing Information Technology  
IST 425 Enterprise Risk Management  
IST 456 Information Policies and Decision Making

Network and Systems Management:

Required:  
IST 452 Advanced Networking

Electives:  
IST 400 Open Source OS and Applications  
GET 434 Global Computing Challenges  
GET 239 Enterprise Technologies  
IST 448 Enterprise Wireless Network Technologies  
IST 453 Telecommunications Regulations

Web Design and Management:

Required:  
IST 263 Design and Management of Internet Services

Electives:  
IST 323 Introduction to Information Security  
IST 449 Human Computer Interaction  
IST 479 Electronic Commerce Technologies  
IST 486 Social Media in the Enterprise  
IST 523 Graphic Design for the Web  
IST 553 Information Architecture of Internet Services

Database Management

Required:  
IST 469 Advanced Data Administration Concepts and Database Management

Electives:  
IST 263 Design and Management of Internet Services  
IST 400 Database Security  
IST 432 Enterprise Systems  
GET 434 Global Computing Challenges  
IST 479 Electronic Commerce Technologies  
IST 553 Information Architecture of Internet Services

Digital Retail Strategies (in partnership with Whitman School of Management):

Required:  
IST 195 Information Technologies  
RMT 301 Retailing Fundamentals  
RMT 457 Electronic Retailing and Marketing

## RMT 407 Retail Buying and Planning

### Electives:

IST 263 Design and Management of Internet Services

IST 486 Social Media in the Enterprise

IST 523 Graphic Design for the Web

## II. Skills Electives (21-23 credits)

### A. Programming Skills (3 credits)

All students majoring in information management and technology are required to complete one computer programming course from the list below:

IST 256 Application Programming for Information Systems

CPS 196 Introduction to Computer Programming

CPS 335 JAVA Programming for the Internet; or

Any approved programming course

### B. Communications Skills (12 credits)

Students must choose one course from each of the four requirements.

1. WRT 105 Studio 1 or WRT 109 Studio 1 (Honors)

2. WRT 205 Studio 2 or WRT 209 Studio 2 (Honors), or another writing course with permission of advisor

3. IST 444 Information Reporting and Presentation or CRS 325 Presentational Speaking

4. WRT 303 Advanced Writing Studio: Research and Writing or WRT 307 Advanced Writing Studio: Professional Writing

### C. Mathematics or Language Skills (6-8 credits)

All information management and technology majors are required to attain minimum competence in either a foreign language or mathematics. Students may satisfy this requirement by completing either the quantitative skills or the language skills requirement of the Liberal Arts Core curriculum of the College of Arts and Sciences.

## III. Arts and Sciences Divisional Requirements (12 courses; minimum 36 credits)

More than one-third of the courses required for completing the information management and technology major are taken in the College of Arts and Sciences. The three divisions of the Arts and Sciences—Natural Sciences and Mathematics, Social Sciences, and Humanities—play a central role in the information management and technology curriculum. Students are required to take three courses in each of the three divisions. In addition, three courses in any of the divisions must be completed to fulfill this requirement.

## IV. General Electives (21-24 credits)

Students can take any Syracuse University course open to them or concentrate on a minor, a dual degree, a combined degree, an internship experience, or study abroad.

## V. International Experience

Students will be required to complete one international experience to graduate with their iSchool undergraduate degree. This international experience is intended to expose students to how business is accomplished in other countries, as well as how to integrate business and information exchange between these countries, and work within multi-national teams. Students can fulfill their international requirement in one of the following ways:

1. Semester abroad
2. University exchange
3. Short term abroad program
4. International internship
5. Coursework
6. Approved international component - by petition

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## Minor In Information Management And Technology

### MINOR IN INFORMATION MANAGEMENT AND TECHNOLOGY

Contact: Susan Dischiave, Program Director, 314 Hinds Hall; (315) 443-5611, [sadischi@syr.edu](mailto:sadischi@syr.edu)

Website: Minor in Information Management & Technology

## Overview:

The 18-credit minor program in information management and technology can be taken with any SU major, with the approval of the student's home college. The minor complements many majors because all organizations need people who understand information resources and information technology. Students who minor in information management and technology will increase their employability in a variety of careers.

- Biology and chemistry majors who want to work in a research lab will be more employable if they can use online information systems to retrieve information and manage data, such as genome sequences.
- Retailing and business students will be better prepared to work in business if they have skills in microcomputer applications and office systems technology.
- Communications students must be able to research information and present and package it effectively in video, audio, and print form. An information management and technology minor will provide those skills.
- Economics, history, and political science majors with courses in information systems and information policy will find many opportunities to work in federal, state, and local government.
- Health and Human Services majors who minor in information management and technology will be better prepared to work in the automated, information-intensive environment of the health care industry.
- Design and art majors will learn how information technology gives them new tools by which to enhance the world.

## Admissions:

Students considering the minor may delay enrolling until the third year of study. However, interested students are encouraged to begin planning with a School of Information Studies advisor during the first or second year. Students are required to fill out a brief application form. Applicants must have a grade point average of at least 3.0. Depending upon available spaces, students with GPAs below 3.0 may be considered. However, there may be times when GPA requirements will be higher than 3.0 due to space restrictions. Students must also meet other criteria as determined by the faculty of the School of Information Studies.

## Curriculum:

### I. Required Courses (9 credits)

IST 195 Information Technologies

One course from each of the following areas:

#### Technology Courses

IST 233 Introduction to Computer Networking

IST 346 Operating Systems Administration

IST 359 Introduction to Database Management Systems

#### Management Courses

IST 335 Introduction to Information-Based Organizations

IST 352 Information Analysis of Organizational Systems

IST 445 Managing Information Systems Projects

### II. Electives (9 credits)

Select three other information management and technology courses, preferably from one or more of the information management and technology concentrations.

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## Minor In Information Technology, Design, And Startups

### MINOR IN INFORMATION TECHNOLOGY, DESIGN, AND STARTUPS

Contact: Susan Dischiave, Program Director, 314 Hinds Hall, (315) 443-5611, [sadischi@syr.edu](mailto:sadischi@syr.edu)

Website: Minor in Information Technology, Design, and Startups

## Overview:

Do you have a dream of starting a new company? The minor in Information Technology, Design, and Startups (IDS) is a great way of converting that dream into reality. In IDS courses, you'll acquire the basic knowledge and skills required to run a successful business and you'll also learn how to develop and refine new ideas -- the seeds of innovation -- and turn those ideas into a viable venture. You can earn credit through real-world entrepreneurial immersion experiences, allowing you to pursue your venture while earning your Bachelor's degree. You'll get support from talented faculty members who approach entrepreneurship from multi-disciplinary perspective as well as a team of community partners and mentors who can help you make the right connections to jumpstart your venture.

The minor in Information Technology, Design, and Startups is an interdisciplinary 18-credit minor that prepares students with the knowledge and skills

required to start a technology-oriented business venture. Students learn the basics of business and entrepreneurship by taking EEE 370 (Introduction to Entrepreneurship), taught by faculty from the Whitman School of Management, home to one of the most highly ranked entrepreneurship programs in the country. In IDS 401 (What's the Big Idea?), students are exposed to many aspects of the creative entrepreneurial process, focusing on the development and refinement of ideas that can be translated into a business venture. Students are also exposed to principles and practice of design that are critical to the development of new products and services. After successfully completing IDS 401, students are eligible to formally apply for the IDS minor, at which point they will enroll in IDS 402 (Idea to Startup). In IDS 402, students work in teams to translate ideas into viable startup businesses, addressing all of the key components of that process from business proposal development to funding. To complete the IDS minor, students must fulfill the entrepreneurial experience requirement under the supervision of a faculty member and a suitable professional mentor. Students will typically fulfill the experience requirement by spending one or more semesters working at the Syracuse Technology Garden, a local incubator of technology-oriented businesses. At the Tech Garden, students will work at the Student Sandbox under the direction of an Entrepreneur in Residence and with support from volunteer mentors.

Required courses make up between 10 and 15 credits required for the minor, depending on how many credits a student chooses to earn during their entrepreneurial experience. The remaining 3-8 credits are taken as electives, drawn from a long list of options available from four different SU schools and colleges. Of the total of 18 credits required to earn the minor, 12 credits must be in courses numbered 300 or higher. In addition, no more than 3 elective credits can be double counted to fulfill requirements of another major or minor on campus.

The IDS minor is administered by the School of Information Studies. There are no requirements for admission other than registration for IDS 402. Registration for IDS 402 requires a student to submit a venture proposal to the course instructor.

## Curriculum:

### I. Required courses (10 credits)

Students will normally enroll in IDS 401 during the fall semester. Upon successful completion, they will apply for the minor and enroll in IDS 402 during the spring semester. Students are encouraged to take EEE 370 prior to or concurrent with IDS 401. After completing these three courses, students will be eligible to apply for the Sandbox.

EEE 370: Introduction to Entrepreneurship (3 Credits)

IDS 401: What's the Big Idea? Technology Innovation (3 Credits)

IDS 402: Idea2Startup: Technology Entrepreneurship (3 Credits)

IDS 403: Startup Sandbox (1 credit)

### II. Recommended Electives (3 - 8 credits)

Students are encouraged to consult with the program director or a faculty or professional mentor to determine which of the following courses best complement their entrepreneurial goals.

IDS 403: Startup Sandbox

Entrepreneurship and Emerging Enterprises, Martin J Whitman School of Management

EEE 382 Entrepreneurial Marketing

EEE 451 Finance for Emerging Enterprises

EEE 458 Business Plan Laboratory

Information Management and Technology, School of Information Studies

IST 195 Information Technology

IST 256 Application Programming for Information Systems

IST 263 Design and Management of Internet Services

IST 444 Information Reporting and Presentation

IST 445 Managing Information Systems Projects

IST 479 Electronic Commerce Technologies

Design Department, College of Visual and Performing Arts

FAS 147 Visual Thinking

DES 248 Design Issues

EDI 144 Drafting for Designers

EDI 251 Environmental Design I

ISD 553 Philosophy and Research

IND 477 Primary and Secondary Research

IND 375 Human Factors for Designers

L.C. Smith College of Engineering and Computer Science

CEN 574 Process Design

CSE 486 Design of Operating Systems

MEE 332 Introduction to Machine Design & Manufacturing

MFE 331 Manufacturing Processes

ECS 392 Ethical Aspects of Engineering & Computer Science

MAE 548 Engineering Economics and Technology Valuation

MFE 557 Management Decisions in Manufacturing

## Systems And Information Science

### Program Directors:

Robert J. Irwin, 4-206L-A Center for Science and Technology, 315-443- 4400, rjirwin@syr.edu  
David Dischiave, 225 Hinds Hall, 315-443-4681, ddischia@syr.edu

### Faculty:

Amit Agrawal, Ercument Arvas, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jason Dedrick, David Dischiave, Susan Dischiave, Wenliang (Kevin) Du, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Albert Goldfain, Mustafa Cenk Gursoy, Robert Heckman, Carlos R.P. Hartmann, Robert Irwin, Can Isik, Philipp Kornreich, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Deb Nosky, Jae C. Oh, Susan Older, Qinru Qiu, Laich Rabieirad, James S. Royer, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Jian Tang, William C. Tetley, Arthur Thomas, Prnmod K. Varshney, Senem Velipasalar, Hong, Min Xu, Heng Yin, Edmund Yu

### What is Systems and Information Science?

In essence, students in the SIS program learn what they can do with computers and how best to do it. As the name implies, the focus is on information and how it can be stored, manipulated and retrieved. Implementation of large-scale software systems and working with a group of people in achieving such goals are emphasized in the SIS program.

### SIS at Syracuse University

Systems and Information Science (SIS) integrates software and systems knowledge with expertise in business enterprise environment. SIS majors gain hands-on experience in design-oriented laboratories and learn about the social, business and organizational aspects of digital information systems.

### Curriculum:

The SIS program requires a total of 120 credits, as follows:

- 32 credits SIS Core
- 24 credits SIS Sequences
- 13 credits Mathematical Foundations
- 9 credits Communication Skills
- 39 credits Arts & Sciences
- 3 credits Free Electives

In the descriptions that follow, all courses are three credits unless otherwise indicated.

### I. SIS Core (32 Credits)

SIS 100 Freshmen Forum

Information Management Core (9 credits)

- IST 335 Introduction to Information-Based Organizations
- IST 352 Information Analysis of Organizational Systems
- IST 445 Managing Information Systems Projects

Computing Core (20 credits)

- ECS 102 Introduction to Computing
- CIS 252 Introduction to Computer Science (4 cr) CIS 351 Data Structures (4 cr)
- CIS 386 / CSE 386 Principles of Computer System Design
- CIS 453 Software Specification and Design
- CIS 454 Software Implementation

### II. SIS Sequences (24 Credits)

All SIS students must complete both a Short Technical Sequence (6 credits) and a Focus Area (18 credits).

The Technical Sequence requires a two-course sequence in one of several applied-technology areas: Database Management, Networking, Security Management, Systems, and Web Design and Management.

The Focus Area requires 18 credits in a specific domain, which represents a potential area for the application of a student's informing management and computing skills.

Students may not count the same course towards both their Technical Sequence and their Focus Area.

For details of the Technical Sequence and the Focus Areas, please consult the SIS Program Directors.

III. Mathematical Foundations (13 credits)

- MAT 194 Pre-Calculus (4 cr)
- PHI 251 Logic
- CIS 275 Introduction to Discrete Mathematics
- CIS 223 Statistical Reasoning and Practice

IV. Communication Skills (9 credits)

The Communication Skills requirement provides both writing and presentation experience.

- WRT 105 Studio 1: Practices of Academic Writing
- WRT 205 Studio 2: Critical Research and Writing

and one of the following:

- CRS 325 Presentational Speaking
- IST 444 Information Reporting and Presentation

V. Arts & Sciences (39 credits)

Students must take 39 credits of courses from the College of Arts & Sciences and/or the College of Visual and Performing Arts. Specifically, these credits must be distributed as follows:

- 6 credits Humanities
- 6 credits Social Sciences
- 6 credits Natural Sciences & Mathematics
- 21 credits of any courses from the above A&S divisions or VPA

Notes:

1. NYS Department of Education requires half of the credits for a B.S. degree to be in the liberal arts and sciences. These 39 credits—combined with the Communication Skills and Mathematical Foundations— exceed the necessary 60 credits.
2. A student’s Focus Area (e.g., a minor in history) may contain courses that satisfy the NYS requirement for liberal-arts content. In such a case, the remaining credits become free electives.

VI. Free Electives (3 credits)

A student has 3 credits of free electives. Any course in the University can be used to satisfy this requirement.

Sample Four-Year Course Flow:

The following shows a fairly typical SIS undergraduate program for a student who arrives with no transfer credits. All courses are 3 credits unless otherwise indicated.

	Fall	Spring
First Year	Freshman Forum	CIS 252 (4)
	ECS 102	PHI 251
	MAT 194 (4)	A&S Elective
	WRT 105	A&S Elective
	A&S Elective	A&S elective
	16 credits	16 credits

Second Year	CIS 275	CIS 223
	CIS 351 (4)	WRT 205
	IST 335	IST 352
	A&S elective	Tech Spec course
	free elective	A&S elective
	16 credits	15 credits

Third Year	CIS 386	IST 444/CRS 325
	IST 445	Focus Area course
	Tech Spec course	Focus Area course
	Focus Area course	A&S elective
	A&S elective	A&S elective
	15 credits	15 credits

Fourth Year	CIS 453	CIS 454
	Focus Area course	Focus Area course
	Focus Area course	A&S elective
	A&S elective	A&S elective
	A&S elective	
	15 credits	12 credits

## Global Enterprise Technology

GET 234 Effective Collaboration in a Globally Distributed Environment 1.5 Y  
Key technologies that facilitate collaboration in a global enterprise. Best practices for virtual and cross-cultural enterprise. Best practices for virtual and cross-cultural collaboration. Strategies for synchronous and asynchronous collaboration. Challenges of team building in a distributed environment.

GET 235 Leveraging Emerging Technologies 1.5 Y  
Explore emerging technologies on a global scale and in the context of services familiar to students. Infrastructure, data centers, programming languages, security, privacy, mobile applications, and payment systems.

GET 236 Enterprise Data Analysis: Tools and Techniques 1.5 S  
Enterprise tools and techniques using modern data analysis tools. Review of spreadsheet fundamentals, formulas, graphing, sensitivity analysis, statistical correlation and regression. Intended for undergraduates interested in managing and analyzing enterprise data with contemporary software.

GET 239 Enterprise Technologies 3 Y  
Coverage of technical architecture and management issues that comprise enterprise computing environments. Focus on identifying and solving large complex problems and using large scale computing systems to deploy enterprise solutions. Hands-on development using enterprise technologies.

GET 302 Global Financial Systems Architecture 3 Y  
Crosslisted with: FIN 302  
Structures of real-world information systems in the money supply chain. Emphasis on large-scale banking organizations and their challenges in moving and processing millions of complex transactions worldwide for all types of customers.

GET 305 Globalization, Culture and Information Technology 3 Y  
Exploration of IT and culture in global enterprises including issues of globalization, IT and culture, distributed collaboration, global enterprise systems, knowledge management, and campaigns.

GET 336 Advanced Enterprise Data Analysis: Tools and Techniques 1.5 S  
Advanced examination of enterprise tools and techniques using modern data analysis tools. Review of database queries, data slicing with pivot tables, and dash board development.

GET 365 Business Value of Information Technology 1.5 Y  
Crosslisted with: MIS 365  
Financial measures of IT value including TCO, ROI, and NPV; non-financial dimensions of business value such as strategic fit, IT investment risk; IT governance and IT models; measuring IT performance; IT change management.

GET 375 Management of Information Technology Contracting 1.5 Y  
Crosslisted with: MIS 375  
Budgeting and controlling IT costs; IT procurement including requirements specification, requests for proposals, evaluation criteria, and vendor selection; evaluating and managing vendor performance; developing and monitoring contracts.

GET 400 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

GET 410 Contemporary Issues in Global Enterprise Technology (GET): 9 Y  
Covers contemporary issues pervasive in large global enterprises. Builds the basic understanding of the technical and management architectures that comprise large, complex global enterprise computing environments.

GET 433 Multi-tier Application Development 3 Y  
The development of enterprise applications on multi-tiered systems from mobile to mainframe. Examines enterprise computing at two levels: Application Design Patterns and Infrastructure and Implementation.

GET 434 Global Computing Challenges 3 Y  
Management and technical overview of large-scale computing challenges and their impact on global enterprise operations. The concepts, fundamentals, issues and technologies for managing high performance computing operations. Laboratory exercises.

GET 471 Internship in Global Enterprise Technology 1-12 Y  
Fully supervised internship available to Global Enterprise Technology minors. Students must complete contract with a site supervisor. R

GET 472 Professional Experience in Global Enterprise Technology 1-12 Y  
Fully supervised extended professional experience in a global enterprise. Students must complete contract with site supervisor. R, 12 credits maximum

GET 486 Independent Technology Education 3 Y  
Double Numbered with: GET 686  
Self-Directed Learning that provides the opportunity and resources to develop specific, individualized information technology knowledge and skills. Additional work required of graduate students.

GET 487 Global Tech 3 Y  
Double Numbered with: GET 687  
2 week traveling seminar to different countries in Europe, visiting global organizations exploring key enterprise technology topics from a global perspective. Additional work required of graduate students.

GET 490 Independent Study 1-6 SI  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

GET 500 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

## Information Technology, Design And Startup

IDS 401 What's the Big Idea?: Technology Innovation 3  
Innovation in information technology. Learn how to develop, grow and vet ideas and build teams ready to create a product, service or business.

IDS 402 Idea2Startup 3 Y  
Students establish an actionable plan for the launch of their own business. Focus on establishing a well conceived, achievable and actionable path to market. Permission of instructor.  
PREREQ: IDS 401.

IDS 403 Startup Sandbox 1-6 Y  
Business incubation. Students work with mentors and coaches to develop and deploy a for-profit or nonprofit venture. Permission of instructor.

PREREQ: IDS 402. R14, 12 credits maximum

## Information Studies

IST 101 Freshman Forum 1 Y  
The field of information management and technology. Diverse topics include new and emerging issues in the field. Relevant reading and writing with discussions prompted by current issues in the news.

IST 180 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R2, 12 credits maximum

IST 195 Information Technologies 3 S  
State-of-the-art technologies in the field. Computer architectures, telecommunication networks, software design and application. Issues in information management and technology use.

IST 200 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

IST 233 Introduction to Computer Networking 3 S  
Overview of technology, standards, implementation and management of digital computer networks. Wired and wireless local and wide area networks, Internet protocols, telecommunications, and network security. Includes weekly labs.

IST 256 Application Programming for Information Systems 3 S  
Structured program design, development testing, implementation, and documentation of common information system applications using structured programming languages. Lectures and laboratory.

IST 263 Design and Management of Internet Services 3 Y  
Principles for construction and publication of multimedia documents for the World Wide Web. Incorporate a user-based approach to planning, design, implementation, and management in distributed network environments.

IST 280 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

IST 300 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

IST 323 Introduction to Information Security 3 Y  
Basic concepts and technologies of information security. Students who successfully complete this course will have a comprehensive overview of information security with some hands-on experience. PREREQ: IST 233.

IST 325 Information Management Consultation 3 Y  
Information technology trends and proven applications in information processing, telecommunications, office systems, and information processing industry products and services. Consultation skills; strategies for introducing technology transfer strategies and management of innovation and change.

IST 335 Introduction to Information-Based Organizations 3 S  
Organizational behavior; groups and teams; leadership and management; human resources; organizational development; change management. Interactions between people and technology in work organizations; impacts of information technology on organizational effectiveness.

IST 341 User-Based Design 3 IR  
System design based on users' cognitive perceptions of their situations, their work in addressing their situations, information needs, information and source use. Contrast to technology, content or organization focused design strategies. Based on students' system design interests.

IST 346 Information Technology Management and Administration 3 S  
Information technology management principles and practices. Administration of computers, operating systems, and applications. Tools and techniques for managing information technology operations. Includes hand-on labs. PREREQ: IST 233.

IST 352 Information Analysis of Organizational Systems 3 S  
Introduces information flow as basis of organizational work and role of information systems in managing work. Concept of systems decomposition to facilitate analysis. Skills required to decompose, model, and analyze information systems.

IST 359 Introduction to Database Management Systems 3 S  
Data structure, file organization, and principles and concepts of data bases for information retrieval systems. Data analysis, design, models, management, evaluation, and implementation. PREREQ: IST 352.

IST 371 Career Development Skills for Information Professions 1 IR  
Self assessment, resume writing, cover letter writing, professionalism in the workplace, job searching techniques, developing an internship or cooperative learning agreement.

IST 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

IST 402 Digital Forensics 3 Y  
The fundamentals of the forensic process, evidence handling, and quality assurance as they apply to digital forensics. Emphasis on evidence handling and quality assurance as they apply to digital forensics. PREREQ: IST 323.

**IST 419 Applied Economics for Information Managers 3 Y**

Economic principles relevant to management of information functions in organizational contexts. Core micro-economic concepts applied to the marketplace for information products and services. Financial tools used for managing information systems and networks.

**IST 422 Acquiring, Procuring, and Financing Information Technology 3 SI**  
Preparing and negotiating information technology requests, cost-benefit analysis, and budget alternatives. Financing options for information processing and telecommunications projects, preparing requests for proposals or other procurement alternatives, negotiating with vendors, acquisition strategies.

**IST 425 Enterprise Risk Management 3 Y**  
A multidisciplinary perspective of risk assessment, modeling, and management. Topics include: concepts of personal accountability versus governance and policy; how organizations define and measure risk and loss; and plan for contingencies.

**IST 426 Business Information Sources and Strategic Intelligence 3 SI**  
Business and industry information sources. Techniques and processes of competitor analysis. Concentrates on the implications of the information provided through competitor analysis and on making recommendations for strategic action plans. Group projects and case studies.

**IST 429 Organizational Information Security 3 SI**  
Personnel/organizational skills for information security managers and officers: staffing, training, certification, incentives, and evaluation of information security personnel, non-security IT personnel, etc.; organizational development related to security awareness, threats, and responses; and ethics/codes of behavior in information security.  
PREREQ: IST 323.

**IST 432 Enterprise Systems 3 SI**  
Technical overview of Enterprise Systems and their impact on organizations. The concepts, fundamentals, issues and technologies in planning, implementing and operating an Enterprise System. Current trends, issues, technologies and extensions. Laboratory exercises.

**IST 442 Introduction to Electronic Commerce 3 SI**  
Organizational, technical, and societal forces driving the movement to digital commerce. Business to consumers and business to business interactions. Effects of e-commerce on industry value chains, markets, transaction costs, business alliances, and industrial competitiveness.

**IST 443 Critique of the Information Age 3 Y**  
Effects of information technologies on society: social, cultural, and ethical implications. Multidisciplinary critique of changes in society.

**IST 444 Information Reporting and Presentation 3 S**  
Information synthesis and the presentation of information. Organizing information for presentation, text, and graphics. Presentation skills, training and teaching methods.

**IST 445 Managing Information Systems Projects 3 Y**  
Double Numbered with: IST 645  
Project management as a professional discipline in information and communication technology. Introduction to roles, activities, methods, and tools. Critical review and application of principles. Additional work required of graduate students.

**IST 447 Complex issues in IT Project Management 3 Y**  
Double Numbered with: IST 747  
Complex issues that confront IT project managers. Case studies to explore problems, solutions and best practices. Application of key concepts to diverse industry settings. Additional work required of graduate students.  
PREREQ: IST 445.

**IST 448 Enterprise Wireless Network Technologies 3 Y**  
Double Numbered with: IST 648  
Technologies, standards, implementation, and management of advanced broadband wireless data systems. Includes examination of analog and digital wireless subsystems, antennas, access devices, and enterprise infrastructure components. Technical presentations, discussion of industry activities, and labs. Additional work required of graduate students.  
PREREQ: IST 233.

**IST 449 Human Computer Interaction 3 SI**  
Human performance characteristics, user computer interaction styles, user interface design alternatives, user interface evaluation methods.  
PREREQ: IST 352.

**IST 452 Advanced Computer Networking 3 Y**  
Technical, design, and management issues related to enterprise computer networking. In-depth investigations of TCP/IP Internet work protocols and popular network technologies including Ethernet and Wireless. Hands-on experience with protocol analysis, network management, and security.  
PREREQ: IST 233.

**IST 453 Telecommunications Regulations 3 Y**  
Regulation at the ITU, FCC, and public utility commissions. Function and operation of regulatory bodies. Political, economic, and legal theories of regulation. Sources of regulatory information. Regulatory history and current status. Current issues.

**IST 456 Information Policies and Decision Making 3 Y**  
Current and emerging policy issues, policy formulation and conflict, roles and perspectives of major actors in the policy-making process. Privacy, freedom of information, intellectual property rights, information dissemination and access, security classification and restriction, computer crime.

**IST 466 Prof Issues/Info Mgmt & Tech 3 S**  
Integration of management strategies, information uses, and information technologies as related to professional conduct, ethics, and career strategies. In-depth review and use of case studies. IST majors only.

**IST 469 Advanced Data Administration Concepts and Database Management 3 SI**  
In-depth analysis of databases and database management system architecture, building complex database objects, database applications using forms and reports, data warehouses, establishing and implementing database security, and tuning databases for optimum performance.  
PREREQ: IST 359.

**IST 471 Internship in Information Management and Technology 1-6 S**  
Fully supervised internship available to IST majors and minors. R5, 12 credits maximum

**IST 472 Cooperative Education in Information Management and Technology 1-12 S**

Fully supervised, paid, cooperative education experience extending over two separate time periods. Students must complete a contract with site supervisor. R5, 12 credits maximum

**IST 479 Electronic Commerce Technologies 3 Y**

Overview of e-commerce technologies and applications, middleware, firewalls, encryption, payment systems, database integration, shopping cart applications, cookies, transaction analysis, and application service providers. Programming experience recommended.

PREREQ: IST 323.

**IST 486 Social Media in the Enterprise 3 Y**

Introduction to the use and management of social media technology with an organization, including strategies for use in an enterprise organization, creation of original content and exploration of policy concerns.

**IST 488 Social Web Technologies 3 Y**  
Double Numbered with: IST 688

This course will educate students in the concepts and mechanisms of social networking in technologies through hands-on system design, development, implementation and management of these systems.

PREREQ: IST 256.

**IST 490 Independent Study 1-6 SI**

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

**IST 499 Honors Capstone Project 1-3 SI**

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

**IST 500 Selected Topics 1-3 SI**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**IST 502 New Directions in Academic Libraries 1-3 SI**

Present state and future prospects of academic libraries in light of changes in the technology of scholarly communications and in the nature of higher education.

**IST 503 Proposal Writing for the Information Field 1 SI**

Researching and developing grant and contract proposals. Proposal evaluation process and key tools for finding grants and requests for proposals in the information sciences. Emphasis on preparing successful proposal packets.

**IST 511 Introduction to the Library and Information Profession 3 Y**

Key components of the field and its relationship to other fields and professions. General structure, issues and problems, research, and literature.

**IST 522 Applied Information Security 3 SI**

Applications of information security including hands-on experience. Students who successfully complete this course will understand how information security technology is applied to real systems.

PREREQ: IST 623 OR (IST 233 AND 346).

**IST 523 Graphic Design for the Web 3 Y**

Learn basic and advanced website design principles utilizing Adobe Photoshop and Flash, with emphasis on typography, color theory and layout. Understand and practice Flash Actionscript basics to create animation and dynamic web applications.

**IST 553 Information Architecture for Internet Services 3 Y**

Building and management of Internet information services, including information organization, information management, and information dissemination. Understanding of the use of Internet technologies within an organizational context. Practice with current technologies.

**IST 556 Mobile Network Services 3 Y**

Devices, networks, and applications of emerging mobile communication technologies. Includes mobile devices, wireless applications, mobility in the enterprise, and service provider strategies and positioning. Includes technical presentations and extensive discussion and analysis of industry trends.

**IST 558 Technologies in Web Content Management 3 SI**

Concepts and techniques in web content representation, organization, presentation, development, and management with the eXtensible Markup Language (XML), including basic XML syntax, vocabulary specification, data modeling, transformation, and Document Object Model (DOM).

**IST 564 Library & Information Services to Students with Disabilities 3 Y**

Includes strategies for planning library programs and services that are inclusive of the information needs of PK-12th grade students with disabilities.

**IST 565 Data Mining 3 SI**

Introduction to data mining techniques, familiarity with particular real-world applications, challenges involved in these applications, and future directions of the field. Optional hands-on experience with commercially available software packages.

**IST 585 Knowledge Management 3 SI**

Information systems behaviors that enable organizations to systematically identify, acquire, store, analyze, distribute, and reuse information and knowledge from all sources (internal and external, explicit and tacit) in order to enhance organizational productivity and competitiveness.

## Systems & Information Science

**SIS 100 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

# Faculty

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Marilyn P. Arnone, Associate Research Professor; Professor of Practice  
Ph.D., Syracuse University, 1992  
Children's curiosity and learning, information literacy, creativity

Bahram Attaie, Assistant Professor of Practice  
Computer Science, M.S.  
Networking and database programming

Scott A. Bernard, Executive Professor  
Ph.D., Virginia Tech., 2001  
Enterprise architecture and capital planning, public and private sector chief information officers, federal policy development on information resources management

Susan M. Bonzi, Associate Professor; Faculty Emeritus  
Ph.D., University of Illinois at Urbana-Champaign, 1983  
Image retrieval systems, bibliometrics, linguistic applications in information retrieval

Carlos E.E. Caicedo Bastidas, Assistant Professor  
Ph.D., University of Pittsburgh, 2009  
Security, wireless networks, software development, telecommunications management

Kevin Crowston, Distinguished Professor of Information Science  
Ph.D., Massachusetts Institute of Technology, 1991  
Organizational implications of information technologies, electronic markets, computer-supported cooperative work with electronic commerce, open source software development, virtual organizations

Michael D'Eredita, Assistant Professor of Practice  
Ph.D., Syracuse University, 1998  
Organizational learning and change, skill acquisition, high performance (virtual) teams

Jason Dedrick, Associate Professor  
Management, Ph.D.  
Economic development, industrial policy, technology diffusion, globalization of IT

David Dischiave, Director, Global Enterprise Technology (GET) and Bachelor of Science in Systems and Information Science (SIS); Associate Professor of Practice  
M.S., Regis University, 2003  
Experiential learning in the classroom, process and data modeling techniques, object-oriented software engineering principles and database management systems

Susan Dischiave, Director, Bachelor of Science in Information Management and Technology; Associate Professor of Practice  
M.S., Regis University, 2003  
Experiential learning in the classroom, process and data modeling techniques, object-oriented software engineering principles and database management systems

Paul B. Gandel, Director, Doctorate of Professional Studies - Information Management; Professor  
Ph.D., Syracuse, 1986  
Management of information systems, library administration and services, software engineering, information policy, and visualization of information

Martha A. Garcia-Murillo, Professor  
Ph.D., University of Southern California, 1998  
Policy, regulation, telecommunications, infrastructure, access

Robert Heckman, Associate Professor  
Ph.D., University of Pittsburgh, 1993  
Emergent leadership in virtual teams, distance learning, teaching and learning strategies for information professionals

Renee F. Hill, Assistant Professor  
Ph.D., Florida State University, 2006  
School media specialist preparation, censorship in public and private schools, library history, increasing the level of participation of underrepresented ethnic groups in library and information science education

Yun Huang, Research Assistant Professor

Jill Hurst-Wahl, Director, MS in Library & Information Science and School Media programs; Associate Professor of Practice  
M.L.S., University of Maryland, 1983  
Library science, information technology, entrepreneurship, business intelligence, digitization

Michelle L. Kaarst-Brown, Associate Professor  
Ph.D., York University, 1995  
Strategic management of IT, assessment of strategic risks and opportunities of information and communication technologies, social implications of IT

Bruce R. Kingma, Professor of Entrepreneurship  
Ph.D., University of Rochester, 1989  
Economics of information, digital library economics, cost-benefit analysis

Barbara Kwasnik, Associate Dean for Academic Affairs, Professor  
Ph.D., Rutgers University, 1989  
Classification theory, research methods for classification, genre, naming, knowledge organization

R. David Lankes, Professor  
Ph.D., Syracuse University, 1999  
Digital libraries for education, digital reference, metadata, education information

Kenneth Lavender, Assistant Professor of Practice  
Ph.D., University of California at Santa Barbara, 1972  
Rare books, preservation, digital reference, preservation of information, and digital reference services

Elizabeth D. Liddy, Dean and Trustee Professor  
Ph.D., Syracuse University, 1988  
Natural Language Processing (NLP), cross-language retrieval, data mining, text mining, automatic metadata generation, health informatics

Ian MacInnes, Associate Professor  
Ph.D., University of Southern California, 1998  
Information industry strategy, electronic commerce compatibility standards, international business, convergence, telecommunications

Nancy McCracken, Research Associate Professor  
Ph.D., Syracuse University, 1979  
Natural language processing, information extraction, question answering, knowledge representation, and machine learning

Lee W. McKnight, Associate Professor  
Ph.D., Massachusetts Institute of Technology, 1989  
Wireless grids, nomadicity, convergence of the Internet and telecommunications industries, Internet economics and policy, national and international technology policy

David Molta, Associate Professor of Practice  
M.P.A., University of North Texas, 1982  
Mobile and wireless information systems, technology education, network systems design and management

Paul Morarescu, Assistant Professor

Milton L. Mueller, Professor  
Ph.D., University of Pennsylvania, 1989  
Telecommunications industry liberalization,  
Internet governance, domain names and  
trademarks, broadband regulation,  
globalization and trade in telecom and audio-  
visual services, telephone numbering resources,  
international institutions governing  
communication and information

Scott R. Nicholson, Associate Professor  
Ph.D., University of North Texas, 2000  
Data warehousing, data mining, bibliomining  
process, web search tools, new methods for  
distance education

Michael S. Nilan, Associate Professor  
Ph.D., University of Washington  
Virtual communities, user-based system design,  
cognitive behavior, information seeking and  
use, knowledge management, intranets as  
collaborative virtual environments, functional  
linguistic structures for data organizations

Deborah Nosky, Assistant Professor of  
Practice

Megan Oakleaf, Director of Instructional  
Design; Assistant Professor  
Ph.D., University of North Carolina-Chapel  
Hill, 2006  
Evolution and assessment of information  
services; theories, methods, and assessment of  
user education; information literacy  
frameworks and instruction; information  
services in academic libraries

Carsten S. Oesterlund, Associate Professor  
Ph.D., Massachusetts Institute of Technology,  
2002  
Distributed and virtual work, organizational  
learning and knowledge, IT use and  
organizational boundaries, document and genre  
analysis, computer-supported collaborative  
work

Joon S. Park, Associate Professor  
Ph.D., George Mason University, 1999  
Information and systems security; security  
policies, models, mechanisms, evaluation,  
survivability, and applications

Jian Qin, Professor  
Ph.D., University of Illinois at Urbana-  
Champaign, 1996  
Representation of learning objects, knowledge  
organization structure, organization of  
distributed information, knowledge discovery  
in bibliographic databases, scientific  
communication

Jeffrey H. Rubin, Associate Professor of  
Practice

M.S., Syracuse University, 1997  
Content/knowledge management systems,  
web-based management tools (including log  
analysis), user behavior on the Internet

Steven B. Sawyer, Associate Dean for  
Research; Director, Phd Program; Professor  
D.B.A., Boston University, 1995

Social informatics, design and development of  
information systems, project management,  
role of information and communication  
technologies relative to organizational and  
social change

Carl Schramm, University Professor

Ruth V. Small, Meredith Professor  
Ph.D., Syracuse University, 1986  
Motivation, information literacy, distance  
learning

Marcene Sonneborn, Assistant Professor of  
Practice

Jeffrey M. Stanton, Senior Associate Dean,  
Professor  
Ph.D., University of Connecticut, 1997  
Impacts of organizational behavior on  
information security, cognitive-affective  
models of motivation, evaluation and  
behavior, organizational and societal impacts  
of engineering, science and technology,  
research methods including psychometrics and  
statistics

Barbara Stripling, Assistant Professor of  
Practice

Jennifer Stromer-Galley, Associate  
Professor

Zixiang (Alex) Tan, Associate Professor  
Ph.D., Rutgers University, 1996  
Applications and implications of technology,  
telecommunications, governmental policy and  
regulations, wireless networking

Arthur Thomas, Director: MS in  
Information Management, MS in  
Telecommunications & Network  
Management; Associate Professor of Practice  
Ph.D., SUNY Buffalo, 1990  
Performance improvement, project  
management, data networking engineering,  
instructional design, information systems  
management

Howard Turtle, Research Associate  
Professor; Professor of Practice  
Ph.D., University of Massachusetts, Amherst,  
1991

Design and implementation of retrieval  
systems, operating system support for large  
databases, text representation techniques,  
automatic classification, text and data mining,  
automated inference techniques

Murali Venkatesh, Associate Professor  
Ph.D., Indiana University, 1991  
Broadband community network planning,  
reflective practice, planning and design of  
technological systems, applications for  
communities

Jun Wang, Research Assistant Professor  
Ph.D., University of Illinois, Urbana-  
Champaign, 2006; Ph.D., Chinese Academy of  
Sciences, 1997  
Socially intelligent computing, social tagging,  
visualization of statistical data

Yang Wang, Assistant Professor

Ozgur Yilmazel, Research Assistant  
Professor  
Ph.D., Syracuse University, 2006  
Natural language processing, software  
development, information access, information  
retrieval, text categorization

Bei Yu, Assistant Professor  
Ph.D., University of Illinois, Urbana-  
Champaign  
Text mining, opinion mining, media mining,  
political opinion and ideology

Ping Zhang, Professor  
Ph.D., University of Texas at Austin, 1995  
Broad issues in human-computer interaction;  
individual responses to IT; affective,  
cognitive, and behavior aspects of human  
interaction with technology; user-centered  
information systems design and evaluation;  
business information visualization;  
technology-assisted education

# College Of Law

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Hannah R. Arterian, Dean  
446 College of Law  
[law.syr.edu/](http://law.syr.edu/)

## About The College Of Law

Hannah R. Arterian, Dean  
408 College of Law  
<http://law.syr.edu>

### Message from Dean Arterian

Why study law? Each law student undertakes an exciting and rigorous journey. This journey expands analytical skills, knowledge in a professional discipline that informs all aspects of society-locally, nationally and globally. Law graduates are distinctly capable of engaging the issues most critical to any community. More than ever in our history every area of endeavor has some legal overlay-the law informs every issue. The law and the policies it drives interconnect with the environment, technology, media, foreign policy, architecture, the family, human rights and medicine. In fact, the list is as long as your imagination takes you. These limitless connections make a legal education so compelling and so important. The agenda you create, the path you take, the intellectual interests you bring with you and the ones you generate throughout your life, will be profoundly enhanced by an outstanding legal education. It would be difficult to find something the law doesn't influence. Legal education prepares you for meeting the challenge of an increasingly complex world. A law degree has value whether you choose to practice law or to join the foreign service; whether you start your own company or serve as counsel to a college or university; whether you work in the technology industry or in a hospital; whether you write a novel or edit a newspaper; serve as a public defender or work in the justice department. You name the career and law applies.

Our new home – Dineen Hall – opened in the Fall of 2014. The 200,000 square foot Dineen Hall is a state-of-the-art facility that will change the way students embrace their law school experience. Built specifically for the demands of legal education, Dineen Hall features an open architecture design, collaborative learning environments, and superior technology throughout the facility. At the forefront of Syracuse University's new west campus expansion, Dineen Hall is an ideal campus location for a positive student experience.

Syracuse Law provides every opportunity you need to create your future. Our website will give you a preview of what you can anticipate as a law student here. Read about our outstanding faculty, the wide range of courses, clinics and joint degree opportunities designed to provide you with the skills you need to make full use of your education. We start with a firm grounding in courses you need to build on, and then you choose your direction, with the advice and assistance of faculty and staff who really care. All of this on the campus of a great University with all it has to offer, at a law school with a long history and an eye on the future.

No introduction can give you more than a taste of our community and what we have to offer. I hope you will think seriously about pursuing your legal education here at Syracuse. I encourage you to contact us with questions and to keep an eye on our website because new things happen all the time and I hope they will interest you.

Hannah R. Arterian

Dean and Professor of Law

## Academic Rules & Regulations

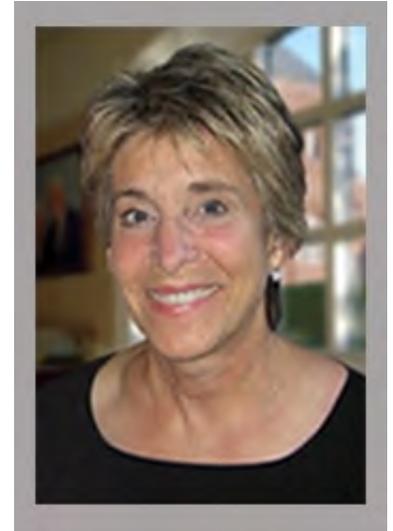
Academic Rules and Regulations may be found by clicking on the link below:

[http://law.syr.edu/\\_assets/documents/academics/2013-2014-academic-handbook-class-of-2015-and-2016.pdf](http://law.syr.edu/_assets/documents/academics/2013-2014-academic-handbook-class-of-2015-and-2016.pdf)

## Enrollment In Law Courses

On a space-available basis, matriculated Main Campus graduate students may enroll in a limited number of courses at the College of Law with special approval of the Senior Assistant Dean for Student Life. Matriculated Main Campus graduate students wishing to take law courses should follow the below procedures.

1. Meet with an academic advisor in the Office of Student Life at the College of Law, Suite 444, prior to registration to complete the necessary forms.
2. If space is available, get permission and signature from the law professor to enroll in the course.
3. The approved forms will be submitted to the College of Law Office of Student Administration and Registrar for processing and to receive a permission number.



Students should contact the dean of their home college to determine whether law courses can be applied toward their graduate degree.

The mere enrollment in a course offered by the College of Law does not constitute admission to the college. Students must be matriculated in the College of Law to receive law credit toward the J.D. degree. Consequently, law credits taken prior to admission to the College of Law will not be accepted toward the J.D. degree.

## Joint Degree Programs

Joint degree study is an integral part of academic life in the College of Law to the extent that students who desire a greater degree of specialization may select from a number of interdisciplinary opportunities. Formal joint degree programs designed to fit career objectives are available in international relations, public administration, communications, business administration, accounting, library and information science, education, forensic science, history, philosophy, political science, and computer science as listed below.

Joint degree programs are structured so that students can earn both degrees in substantially less time than required to earn each degree separately. Students in the joint degree programs must complete their first year of study in the College of Law prior to beginning coursework in the other graduate program.

### Admission to Joint Degree Programs:

Those interested in enrolling in a joint degree program must apply and be admitted to both the College of Law and the other appropriate school or college of the University. Admission to the College of Law does not guarantee one's acceptance into another graduate program. Admission to the joint degree program shall be open to all law students who have a GPA of 2.5 or higher at the end of the 1L year. Upon approval of the student's petition, the Senior Assistant Dean of Student Life shall recommend that the Associate Dean for Academic Affairs approve joint degree candidacy.

Students pursuing a joint degree program shall have their progress reviewed periodically. For purposes of review, the Senior Assistant Dean of Student Life in consultation with the Associate Dean for Academic Affairs will determine if satisfactory progress is being made by considering the following factors: (1) the number of and reasons for "Incompletes" in course work; (2) failure to maintain a 2.5 cumulative grade-point average in the College of Law; (3) the student's standing in the non-law degree program; and (4) progress made and plans for satisfying the writing and optional oral defense requirements of the joint-degree program.

### Minimum Credit Hours:

Students enrolled in joint degree programs, other than the Certificate of Graduate Study in Environmental Decision-Making at the SUNY College of Environmental Science and Forestry, must earn a minimum of 72 credit hours required for the J.D. at the College of Law. In addition, a minimum of 15 credit hours must be earned by successfully completing offerings outside the College of Law pursuant to the approved joint degree program.

Students enrolled in the Certificate of Graduate Study in Environmental Decision-making in the SUNY College of Environmental Science and Forestry program must take Environmental Law and must earn a minimum of 78 credit hours required for the J.D. at the College of Law. In addition, a minimum of 9 credit hours must be earned by successfully completing offerings outside of the College of Law pursuant to the approved joint degree program.

Current College of Law students: please contact the College of Law Office of Student Life, Suite 220, Syracuse University College of Law, Syracuse NY 13244-1030; 315-443-1146, <http://law.syr.edu/student-life/index.aspx>

For admissions information, please contact the College of Law Admissions Office, 315-443-1962, <http://law.syr.edu/admissions>

For financial aid and scholarship information, please contact the College of Law Financial Aid Office, 315-443-1962, <http://law.syr.edu/admissions-and-financial-aid/financial-aid/index.aspx>

## J.D./M.S. In Cultural Foundations Of Education

The joint degree program in law and education, with a concentration in disability studies, offers students the opportunity to earn a J.D. and an M.S. in Cultural Foundations of Education. Eligible joint degree students may also earn a certificate of advanced study (CAS) in disability studies, which is a New York State-approved concentration. Disability studies applies legal, social, cultural, historical, and philosophical perspectives to the study of disability in society. Students may obtain the J.D. and M.S. in three years instead of the four necessary to earn both degrees independently. Because a joint degree program involves reciprocal application of electives, students are not awarded either degree until the requirements for both degrees are completed.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, [kdfoster@law.syr.edu](mailto:kdfoster@law.syr.edu)).

## J.D./M.S. In Computer Science

The Juris Doctor and Master's of Science are combined degrees which may be conferred by the College of Law and Syracuse University's College of Engineering and Computer Science (LCS). A J.D./M.S. in Computer Science could significantly enhance the scope of a student's legal education in areas such as computers, technology and intellectual property law. Students enrolled in this joint degree program may obtain their J.D. and M.S. degrees in

substantially less time than would be necessary if the two programs were pursued separately.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, [kdfoster@law.syr.edu](mailto:kdfoster@law.syr.edu)).

### **J.D./M.B.A. And J.D./M.B.A In Accounting Or Finance**

Business and industry must take public and private law into account in all decisions. The College of Law and the Martin J. Whitman School of Management have responded by creating joint degree programs in business administration and accounting. Students may obtain a J.D. and M.B.A. or J.D. and M.B.A. in accounting or finance in four years instead of the five years necessary when both programs are pursued separately. These programs are particularly appropriate for students with career objectives in corporate law, tax law, or labor law. J.D./M.B.A. students generally complete program requirements in four academic years. Program structure for the J.D./M.B.A. in accounting or finance varies substantially depending on the student's accounting and management background and desire for certification. Because a joint degree program involves reciprocal application of electives, students are not awarded either degree until the requirements for both degrees are completed.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, [kdfoster@law.syr.edu](mailto:kdfoster@law.syr.edu)).

### **J.D./M.S. In Library Science**

The Juris Doctor/Master of Science in Library and Information Science is a combined degree which may be conferred by the College of Law and School of Information Studies. Students admitted to this program have the opportunity to obtain both the Juris Doctor and the M.S. in Library and Information Science in substantially less time than would be required were the two degrees obtained independently. Because a joint degree program involves reciprocal application of electives, students are not awarded either degree until the requirements for both degrees are completed.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, [kdfoster@law.syr.edu](mailto:kdfoster@law.syr.edu)).

### **J.D./M.S. In Forensic Science**

For those entering the legal profession, an understanding of the scientific analysis of evidence can greatly contribute to their effectiveness both in and out of court. Both forensic science methods and their handling in court proceedings have undergone marked changes over recent years, and knowledge of both aspects will best prepare students for their future encounters with forensic evidence.

The Juris Doctor/Master's of Science in Forensic Science (General Forensic Track or Forensic Laboratory Track) are combined degrees which may be conferred by the College of Law and the College of Arts and Sciences. A student who is admitted to this joint degree program has the opportunity to obtain both the J.D. degree and the M.S. Forensic Science degree in substantially less time than would be required were the two degrees to be obtained independently.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, [kdfoster@law.syr.edu](mailto:kdfoster@law.syr.edu)).

### **J.D./Master In Public Administration**

Students may earn a joint J.D./Master of Public Administration through the College of Law and the Maxwell School of Citizenship and Public Affairs at Syracuse University. The public administration program educates individuals to work in government agencies and in organizations that conduct substantial business with government agencies. Because a joint degree program involves reciprocal application of electives, students are not awarded either degree until the requirements for both degrees are completed. Students may obtain the J.D. and M.P.A. in three years instead of the four necessary to earn both degrees independently.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, [kdfoster@law.syr.edu](mailto:kdfoster@law.syr.edu)).

### **J.D./M.A Or M.S. In Communications**

The Juris Doctor/Master of Science or Master of Arts in Communications are combined degrees which may be conferred by the College of Law and the S.I. Newhouse School of Public Communications. A student who is admitted to one of these programs has the opportunity to obtain both the J.D. degree and the M.S. or M.A. in communications degree in substantially less time than would be required were the two degrees be obtained independently.

Joint degrees in communications prepare students for careers in communications law and media public policy. Students may matriculate into one of a number of programs including advertising, arts journalism, documentary film and history, magazine, newspaper and online journalism, media studies, photography, public relations and television, radio and film. The duration of the joint program in communications varies according to the program chosen and the student's prior coursework.

Questions and inquiries may be directed to the Graduate Records Office, S.I. Newhouse School of Public Communications, 330 Newhouse 2 (315-443-4039; pcgrad@syr.edu) or visit newhousemasters.syr.edu. Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, kdfoster@law.syr.edu).

### **J.D./M.A. In History**

The Juris Doctor/Master of Arts in History is a joint degree which may be conferred by the College of Law and the Syracuse University Department of History. Students enrolled in this program may obtain their J.D. and M.A. in History in substantially less time than would be necessary if both programs were separately pursued. Candidates for admission to the joint degree program must first gain admission to the regular program of each participating academic unit.

Questions and inquiries may be directed to Susan Branson, Professor of History and Director of Graduate Studies, Department of History, 145 Eggers Hall, 443-4144, branson@syr.edu. Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of LAW, 443-1146, kdfoster@law.syr.edu.

### **J.D./M.A. In Economics**

The Juris Doctor and Master of Arts in Economics joint degree program is designed to educate lawyers in the basics of economics so they can practice in areas of law that rely on economic information and understanding. Students interested in the J.D./M.A. in Economics program may individually arrange a joint degree program with the College of Law and the Syracuse University Department of Economics. Credit hours and other degree requirements for joint degree candidates would be discussed with the Economics Department; the College of Law allows 15 credit hours toward the J.D., taken in Economics.

Questions and inquiries may be directed to Professor Robin Paul Malloy at the College of Law (226 MacNaughton Hall (rpmalloy@law.syr.edu), and to Professor Stuart Brown, Economics Department, 323 Eggers Hall (ssbrown@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, kdfoster@law.syr.edu.)

### **J.D./M.A. In International Relations**

The Juris Doctor/Master of Arts in International Relations is a combined degree which is conferred by the College of Law and the International Relations program in the Maxwell School of Citizenship and Public Affairs. This joint degree program offers students a unique opportunity to develop the knowledge and skills necessary to enter into a career in the international field, including a basic social science understanding of international relations as well as contemporary features of international affairs. The student may specialize in a specific area of interest such as: international economics, finance and trade; peace, security and conflict; governance, diplomacy and international organizations; democracy, development and humanitarian assistance; and regional concentrations.

Questions and inquiries may be addressed to Nell Bartkowiak, Associate Director of Graduate Studies, 215 Eggers Hall, Maxwell School of Citizenship and Public Affairs (443-4000; nsbartko@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, kdfoster@law.syr.edu)

### **J.D./M.A. And Ph.D. In Political Science**

The Juris Doctor/Master of Arts and Juris Doctor/Doctor of Philosophy in Political Science are joint degrees which may be conferred by the College of Law and the Syracuse University Political Science Department. Students enrolled in these programs may obtain their J.D./M.A. or J.D./Ph.D. in Political Science in substantially less time than would be necessary if both programs were separately pursued.

Questions and inquiries may be directed to Professor Glyn Morgan, Director of Graduate Studies, Maxwell School of Citizenship and Public Affairs (dgmorgan@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, kdfoster@law.syr.edu).

### **J.D./M.A. In Philosophy And J.D./Doctor Of Philosophy**

The Juris Doctor/Master of Arts in Philosophy and Juris Doctor/Doctor of Philosophy are joint degrees which may be conferred by the College of Law and the Syracuse University Department of Philosophy. Students enrolled in these programs may obtain their J.D. and M.A. or Ph.D. in Philosophy in substantially less time than would be necessary if both programs were separately pursued.

Questions concerning and general inquiries may be directed to Professor Thomas McKay, Philosophy Department, 541 Hall of Languages (443-2536; tjmckay@syr.edu). Students with questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate Director for Student Life, Suite 220 College of Law (443-1146, kdfoster@law.syr.edu).

### **J.D./Master Of Social Work**

The Juris Doctor/Master of Social Work is a joint degree which is conferred by both the Syracuse University College of Law and the Syracuse University School of Social Work. Students enrolled in this program may obtain their J.D. and M.S.W. in substantially less time than would be necessary if both programs were separately pursued.

Questions and general inquiries may be directed to Adrienne Renfroe, LMSW, Coordinator of Graduate Admissions, 419 Sims Hall (443-1443; alrenfro@syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Keri Foster, Associate

## Master Of Laws (LL.M.)

### Syracuse University College Of Law LL.M. Program



The Master of Laws (LL.M.) for foreign students at Syracuse University College of Law is a 24-credit hour graduate program designed to offer students with a foreign (non-U.S.) law degree or its equivalent, advanced study in American law.

We encourage prospective students to enroll at one of New York State's most prestigious private law schools, located on the Syracuse University campus in Syracuse, New York. Our LL.M. program is designed to offer foreign legal professionals the opportunity to broaden their effectiveness through the study of U.S. laws and the American legal process.

### Message From The Director



Welcome to the Syracuse University College of Law, Master of Laws (LL.M.) program. In the belief in value of the international exchange of ideas, we are dedicated to welcoming students to this program from varied legal backgrounds and nations. Whether you are seeking a comprehensive overview of the American system of laws or seek to specialize in concentrated areas of course work, the LL.M. will provide you with that knowledge and expertise.

This program is exclusively available to graduates in law from foreign academic institutions or those who are otherwise licensed to practice law in their home jurisdictions. We seek people from diverse legal backgrounds, including corporate, government, private practice, judicial and academic.

In this one-year residential program, each student will take two basic foundational courses together. One to introduce the students to basics of the American Legal system and a second in Legal Writing with a third required research seminar of their choice. The remainder of the program allows the student to tailor their own experience in the LL.M. from among the superb and diverse courses offered at the College.

With a storied history of international engagement, Syracuse welcomes you to our University and to your discovery of American law.

Sincerely,

Aviva Abramovsky  
Associate Dean for International Initiatives  
Professor of Law

Phone: 315.443.1786

Email: [aabramov@law.syr.edu](mailto:aabramov@law.syr.edu)

## Master Of Public Health

Contact: Thomas H. Dennison, Ph.D., Associate Director  
426 Eggers Hall; 315-443-9060; [thdennis@maxwell.syr.edu](mailto:thdennis@maxwell.syr.edu)

[www.upstate.edu/cnymph](http://www.upstate.edu/cnymph)

The Master of Public Health (M.P.H) degree is a collaborative program, sponsored jointly by SUNY Upstate Medical University (UMU) and Syracuse University (SU). Participating colleges at Syracuse University include the Maxwell School of Citizenship and Public Affairs, the David B. Falk College of Sport and Human Dynamics, the L.C. Smith College of Engineering and Computer Science, and the College of Law.

The program is designed to prepare students in the basic knowledge areas in public health through a core curriculum of required courses; extend that knowledge through elective coursework and through practical skills honed in field experiences; and demonstrate an integration of that knowledge through a culminating experience. The basic knowledge areas include: biostatistics, epidemiology, environmental health, health policy and management and social and

behavioral sciences. A minimum of 42 credits is required for the degree, consistent with the accreditation criteria for public health programs promulgated by the Council on Education for Public Health.

The M.P.H. student body consists of individuals with a variety of backgrounds and preparations, including students directly out of undergraduate school with a relevant baccalaureate degree as well as professionals with graduate degrees and significant work experience in public health administration or clinical care. Students will be prepared for career opportunities in public health administration, leadership roles in private agencies involved in public health delivery and advocacy, research, and clinical care broadened by an understanding of the health care delivery system and grounded in public health practice.

#### Admission

Students interested in the M.P.H. must complete an application online at:

[http://www.upstate.edu/cnymph/academic/mph\\_degree/how\\_to\\_apply.php](http://www.upstate.edu/cnymph/academic/mph_degree/how_to_apply.php)

## Law In London

### Train With London's Leading Legal Practitioners

Syracuse University College of Law proudly offers one of the nation's longest-running Law in London programs, where students learn from London's leading legal practitioners. During an eight-week summer experience, students gain international exposure to clients, partner with professionals for personalized mentoring, and enjoy boundless cultural opportunities—in one of the world's most dynamic cities.

#### Who is eligible?

Any full-time or part-time American or Canadian law student who is in good standing at his or her current institution is encouraged to apply. The program is approved by the ABA and is offered as part of the fully accredited curriculum of Syracuse University College of Law.

#### Will this impact my career?

Rigorous coursework and hands-on learning experiences cultivate a student's ability to pursue a career in international law. Individuals who attend the Law in London program are supervised by American faculty who assist with housing, internships, and mentoring. Students engage in a variety of organized internship placements in criminal law and trial law, at financial and governmental institutions, and in corporate settings.

[Click here to learn more about the Law in London summer program.](#)

#### Apply today!

February 15 is the deadline to apply for the summer Law in London experience. For more information, contact Associate Dean for Academic Affairs Chris Day at [cday@law.syr.edu](mailto:cday@law.syr.edu) or Associate Dean for International Initiatives Aviva Abramovsky at [aabramov@law.syr.edu](mailto:aabramov@law.syr.edu).

[Law in London Application](#)



# Courses

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## Law

LAW 500 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

# The Martin J. Whitman School Of Management

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Ken Kavajecz, Dean  
721 University Avenue Suite 215  
whitman.syr.edu



## About The School

Welcome to the Whitman School of Management, a top-ranked business school with a diverse faculty and strong focus on leadership building and community engagement. At the Whitman School, students develop a strong business sense across all aspects of management, providing them with the skills, opportunities, and motivation necessary to compete in a global environment.

The Whitman School is a state-of-the-art business school in both programming and facility, reflecting both Syracuse University's commitment and history of innovative business education and the Whitman School's role as a cutting-edge, experiential learning environment. The Whitman School continues to expand its technological resources to provide services exclusive to our students, in the form of equipment loans, device repair services (including warranty repairs for Dell and Apple computers), discounted printing, discounted and/or free software, remote access to specially licensed software, and lab environments that are updated regularly to reflect the technology that supports the Whitman curriculum. In addition, Whitman is a certified Certiport/Microsoft testing facility and encourages its students to become Microsoft Office Specialist: Excel Certified. Students enrolled at Whitman get the best of both worlds, enjoying the intimate and interconnected community of the Whitman School with all the resources and opportunities of a world-class research university.

The Whitman School of Management continues to be ranked among the nation's top business programs. U.S. News and World Report ranked both Whitman's undergraduate and graduate programs among the best in the nation. The Whitman part-time MBA program, the iMBA, was identified among the top AACSB-accredited online graduate programs by the U.S. News and by the Financial Times. Whitman's entrepreneurship program has been ranked nationwide by the United States Association for Small Business and Entrepreneurship; Entrepreneur Magazine/The Princeton Review; Fortune Small Business; and U.S. News & World Report. Many of Whitman's specialty programs have been highly ranked by Bloomberg BusinessWeek, including accounting, corporate strategy, entrepreneurship, operations management, sustainability, business law, marketing management, and ethics.

## Accreditation Information

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

## Educational Mission

The Whitman School of Management is dedicated to:

- Fostering a diverse, supportive learning community focused on developing entrepreneurial managers who will become leaders in an era of global competitiveness and technological advancements;
- Advancing the theory and practice of management by discovering and disseminating relevant knowledge and contributing perspectives on frontline business issues;
- Providing students and faculty select educational experiences that promote intellectual engagement, personal and professional growth, and lifelong scholarship.

## Undergraduate Education

The Martin J. Whitman School of Management offers nine programs leading to the B.S. degree. They are in accounting, entrepreneurship and emerging enterprises, finance, general management studies, management, marketing management, real estate, retailing, and supply chain management. Each of these programs can be completed within four years. The school also offers dual programs with information studies and public communications.

Each student is assigned an advisor for the first two years of his or her program. Students select a major any time before the end of the second semester of the sophomore year and are then assigned a major advisor, who helps them choose specific courses in the major as well as management electives.

## General Regulations

For academic rules and regulations that apply to all University students, see the Academic Rules and Regulations section of this catalog. This annual publication also contains special regulations that apply to all students matriculated in the Whitman School.

The students, instructional staff, and administrators of the Whitman School recognize that honesty, integrity, and respect for others are fundamental expectations in the academic and business communities. The Whitman School follows the Syracuse University Academic Integrity Policy and Procedures.

Additionally, all students who take courses in the Whitman School are required to certify in writing that they have read, understand, and agree to comply with this policy.

## Degree Requirements

The B.S. degree, in any of the 9 areas available, requires at least 123 credits, distributed as indicated below. In addition, all students must complete global diversity, community service, and internship requirements before graduating.

### Group I Analytical And Quantitative Skills

MAT 183	Elements of Modern Mathematics*	4
MAT 284	Business Calculus* (*or approved calculus sequence)	4
MAS 261	Introductory Statistics for Management	3
MAS 362	Decision Tools for Management	3
MIS 325	Introduction to Information Systems for Managers	3
	Science electives (astronomy, biology, chemistry, earth science, physics, or any physical science)	6
		23

### Group II Communication Skills

WRT 105	Studio 1: Practices of Academic Writing	3
WRT 205	Studio 2: Critical Research and Writing	3
WRT 307 (or WRT 301 or WRT 303)	Advanced Writing Studio: Professional Writing	3
CRS 325/IST 444	Presentational Speaking	3
		12

### GROUP III ENVIRONMENTAL STUDIES

	History, political science, public affairs, economics, or geography	6
LPP 255	Introduction to the Legal System	3
ECN 203	Economic Ideas and Issues	3
ECN 300+	300- or 400-level economics elective	3
		15

### Group IV Behavioral Studies

	Anthropology, psychology, or sociology	9
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### Group V Arts And Humanities

	History of art, history of music, english and textual studies, foreign language, literature, philosophy, linguistics, or religion	6
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### Management Core

In addition to management coursework taken within other skills areas, students are required to complete the following coursework in the management core:

SOM 122	Perspectives of Business and Management (fall only)	3
ACC 151	Introduction to Financial Accounting	4
ACC 252	Introduction to Managerial Accounting	3
SHR 247	Introduction to Strategic Management	3
FIN 256	Corporation Finance	3
MAR 255	Principles of Marketing	3
SCM 265	Introduction to Supply Chain Management	3
SHR 355	Strategic Human Resource Management	3
SOM 354	Managing in a Global Setting	3
EEE 457	Strategic and Entrepreneurial Management	3
		31

### Major Field Specialization

All students, except those majoring in CPA accounting, take 12 credits in the major area beyond core requirements. Students must contact an advisor in the chosen major field to discuss specific requirements.	12
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## Management Electives

A management elective is any upper-division course in the Whitman School that gives credit but is not used to fill requirements in other groups. A maximum of 3 credits from the student's major area may be used as management elective credit.	6
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## Free Electives

Students complete additional credits from any credit-bearing course with the following conditions: at least 6 credits must be non-management coursework; no more than 3 credits of physical education, health, or music ensemble may be used; and students may not take courses considered to have content that duplicates courses already taken.	9
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## Global Diversity

Whitman students must have some form of global experience. For many students, this is achieved through study abroad. Students may also fulfill the requirement with the completion of two courses from the Global Diversity Electives list (which may fulfill other course requirements for the degree).

## COMMUNITY ENGAGEMENT

Students are required to apply their management skills and knowledge to community problems. This is realized through a Community Service Learning Agreement in which 75 hours are completed throughout the undergraduate experience.

## Internship

Students must have at least one experience, after they acquire junior standing, consisting of substantive and supervised work that complements their academic program (120 internship hour). This is accomplished through completing a course that requires internship participation, an independent study for experience credit with a professor, or an Internship Learning Agreement.

## GRADING POLICY

The faculty at the Whitman School developed a uniform grading policy for the undergraduate program. The policy has three goals: (1) to ensure that grading is fair and consistent across courses, (2) to encourage students to take their coursework seriously, and (3) to ensure faculty deliver a challenging academic experience.

The policy is as follows: For all undergraduate courses taken at the Whitman School with 15 or more students enrolled, the mean grade shall be no higher than 3.3 and the maximum percentage of A/A- is 33%.

Multiple sections taught by the same professor will be aggregated together to calculate the mean grade and percentage of A/A- awarded. Deviations to the above policy may occur depending on individual class performance.

## Other Programs And Services

### DUAL PROGRAMS

The Whitman School, in cooperation with other schools and colleges within the University, offers dual programs that make it possible for students to pursue two programs of study concurrently. Students in these programs are assigned an advisor in each college.

Students enrolled in dual programs fulfill degree requirements in each school and receive one degree (one diploma) jointly conferred by both schools. Dual programs require more than 123 credits, normally required for graduation, but can often be completed within four years. The Whitman School offers dual programs with the School of Information Studies and the S.I. Newhouse School of Public Communications. The Whitman/Newhouse dual degree program requires a minimum of 151 credits. The Information Studies/Whitman dual degree program requires a minimum of 142 credits.

Further information about dual programs can be obtained from the Office of Undergraduate Programs, Whitman Suite 215.

### STUDY ABROAD

The Whitman School, in cooperation with Syracuse University Abroad (SU Abroad), offers students the opportunity to participate in a program of study abroad in London, England; Santiago, Chile; Madrid, Spain; Strasbourg, France; Florence, Italy; Istanbul, Turkey; Hong Kong, China; or Beijing, China during the fall or spring semester. Management courses and internships are generally offered in a variety of areas. In addition, students may choose from a variety of courses in arts and sciences and public communications.

During the summer, students may participate in management internship programs in South Africa, Madrid, London, Dublin, or Singapore; take courses in international business in Shanghai; or participate in a travelling seminar that studies globalization in Italy, Switzerland, France, Germany, Holland, Belgium, and England.

SU Abroad also sponsors study opportunities in a variety of locations throughout the world, such as Ireland, Japan, Australia, East/Central Europe, Germany, Russia, and South Korea. Although no management courses are available in some of these programs, students in these programs can satisfy other

degree requirements while developing sensitivity to cultural differences.

It is essential that students planning to study abroad contact the Office of Undergraduate Programs, 215 School of Management Building, during their freshman or sophomore year.

For further information about study abroad, contact SU Abroad, 106 Walnut Place.

## INTRA-UNIVERSITY TRANSFER

Syracuse University students interested in an intra-University transfer into the Whitman School must meet the intra-University transfer requirements. To be considered eligible for transfer, students must have a cumulative grade point average of at least 3.4 and have completed at least 30 credits at Syracuse University (two academic semesters), including two of the following or their equivalents: MAT 183, MAT 221, MAT 284, and ECN 203. These students are admitted as space becomes available, beginning with students who have the highest grade point averages and with the lower averages admitted in order. Whitman only admits students for the fall semester - admissions decisions are made over the summer. Students interested in transferring are required to attend an Information Session and meet with an advisor in the Whitman School's Office of Undergraduate Programs. Students must complete the necessary paperwork no later than the last day of classes of the sophomore year.

## MINORS AVAILABLE TO MANAGEMENT STUDENTS

Students in the Whitman School are encouraged to pursue a minor offered by other schools or colleges, and should seek assistance from their academic advisor in choosing a minor that will enhance their academic program. With careful and early planning, many minors can fit into the undergraduate curriculum without a need for extra coursework. While management students are allowed to pursue most minors offered outside the Whitman School, provided that they have the appropriate prerequisites, they most often choose a minor in economics, global enterprise technology, information management and technology, political science, psychology, public communication studies, or a foreign language.

## MINORS IN MANAGEMENT

Minor Coordinator: Rachel DuBois  
215 Whimam School of Management  
315-443-2361

The Whitman School offers several minors, allowing students to pursue either general management studies or a more specialized program that provides in-depth study in one area of management. A minor in management can help students learn about subjects that contribute to success in business, not-for-profit, and government organizations. Knowledge in management is seen as beneficial by many prospective employers.

The minors in Whitman are available to matriculated undergraduate students from all Syracuse University schools and colleges other than the Whitman School, provided that they have the permission of their home school or college, a cumulative grade-point average (GPA) of at least 3.0, and a minimum of four semesters to complete the requirements. A student may declare a minor in: Accounting, Entrepreneurship and Emerging Enterprises, Finance, General Management Studies, International Business, Marketing, Real Estate, Retail Management, and Strategic Management. The details of each of the minor programs can be found under Academic Offerings.

There are two deadlines for submitting applications for management minors: November 1 and April 1 of each academic year. Due to course sequencing and enrollment limitations, students must have a minimum four semesters to complete the minor requirements. Any student wishing to apply for a management minor after the spring of the sophomore year must have one or more courses completed or in progress (please see an advisor in the Whitman Undergraduate Office for more information).

## TO DECLARE A MINOR IN MANAGEMENT

1. Check with your home school or college office to make sure you have room in your program for the required courses. Also check that you have a cumulative GPA of at least 3.0.
2. Pick up a minor declaration form in SOM Suite 215 (keep in mind the April 1 and November 1 deadlines).
3. Bring the minor declaration form to SOM Suite 215 before the deadline. If you are approved, you will be notified via e-mail and asked to pick up the form.
4. Take the signed form to your home school or college office. They will approve the declaration and give you instructions about how to get the minor officially posted on your SU record.

## TRANSFERRING COURSES INTO MINORS IN MANAGEMENT

Normally, a maximum of one course (3 credits) taken at another institution can be used toward the 18 credits of coursework required for the minor. In some minors, there may be no courses considered transferable from other institutions. Upper-elective minor courses must be taken through Syracuse University and are not eligible for transfer credit. Students wishing to transfer a course into the minor must receive approval in advance from the Whitman Undergraduate Office.

## Facilities

The Whitman School of Management's 160,000-square-foot sustainable building opened in 2005, with a central focus on students and creating an environment that promotes a culture of collegiality and a high-tech, world-class learning experience. To provide that experience, the Whitman School creates an open community atmosphere with advanced resources and team-oriented learning spaces, including:

- 22 classrooms
- 200-seat auditorium
- 20 team meeting rooms each for graduate and undergraduate students
- three-story, 4000-square-foot Grand Hall
- undergraduate and graduate computer clusters
- 74 faculty offices
- a faculty research center
- an Investment Research Center
- a center for entrepreneurial start-ups
- a 100-seat cafe
- a special-events room with outdoor terrace

The Whitman School of Management’s building is dedicated to sustainability, providing environmentally friendly resources and features for an enhanced “green” experience.

## Research Centers & Institutes

The Whitman School building boasts many spaces for innovative and collaborative research that provide experiential learning and prepare students for careers across a broad range of business areas. Sophisticated software and integrated technology coupled with advanced workshops and seminars create an ideal learning atmosphere. Whitman’s diverse research centers and institutes include:

- Africa Business Program
- The Ballentine Investment Institute
- The George E. Bennett Center for Tax Research
- The Robert H. Brethen Operations Management Institute
- The Michael J. Falcone Center for Entrepreneurship
- The H. H. Franklin Center for Supply Chain Management
- Goodman Leadership Center
- The Olivia and Walter Kiebach Center for International Business Studies
- The James D. Kuhn Real Estate Center
- The Harry E. Salzberg Memorial Program
- The Earl V. Snyder Innovation Management Center
- Sustainable Enterprise Partnership
- Transactional Records Access Clearinghouse (TRAC)

## Academic Offerings

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### Accounting

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty Susan Albring, Kofi Appiah Okyere, Joseph Comprix, Randal Elder, Mitchell Franklin, David Harris, Badr Ismail, Lihong Liang, MaryAnn Monforte, Alex Thevaranjan, Ginger Wagner, William J. Walsh, Joyce Zadzilka

The major programs in accounting provide students with the academic training and experience needed to become professional accountants. Job opportunities include careers in public accounting, business and industry, not-for-profit organizations, and government. The professional program is designed for students who plan to enter public accounting or other professional accounting fields. The managerial program is appropriate for individuals who plan to enter other areas of accounting or to complement other programs of study.

#### MAJOR REQUIREMENTS

##### PROFESSIONAL PROGRAM

The professional program is designed to help students meet New York State educational requirements for CPA licensure. The CPA license is granted after passing the Uniform CPA examination and meeting professional experience requirements. After August 1, 2009, New York State will require 150 hours of education for CPA licensure. Most other states currently require 150 hours of education for CPA licensure. Students seeking CPA licensure and planning to sit for the Uniform CPA Examination should meet with an advisor to discuss the education requirements for the state in which they seek licensure.

The professional program requires the following courses (credit hours in parentheses):

#### Junior Year

ACC 356 Financial Accounting I (3)  
ACC 357 Financial Accounting II (3)  
ACC 363 Cost Analysis and Control (3)  
ACC 385 Principles of Taxation (3)

#### Senior Year

ACC 476 Auditing Theory and Practice (3)  
ACC 477 Advanced Financial Accounting (3)  
LPP 457 The Law of Commercial Transactions (3)  
Finance elective (3)

#### Managerial Program

The managerial program requires the courses listed below. All managerial accounting majors are required to take ACC 356. Students then choose either ACC 357 or ACC 363, depending upon whether their primary interest is financial or management accounting. Remaining accounting and management electives are chosen based on career objectives in consultation with a major advisor.

The managerial program requires the following courses (credit hours in parentheses):

ACC 356 Financial Accounting I (3)  
ACC 357 Financial Accounting II or ACC 363 Cost Analysis and Control (3)  
Accounting electives (6)  
Management electives (6)

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## Accounting Minor

ACC 151 Introduction to Accounting for Non-Management Students  
ACC 252 Introduction to Managerial Accounting  
FIN 301 Essentials of Finance  
EEE 370 Introduction to Entrepreneurship  
Two 300-level or higher Accounting electives for which student has prerequisites

For information on declaring a minor in Whitman, [click here](#).

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## Aerospace Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 128 credits for the Aerospace Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of “B” or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Bioengineering/Business Administration

Contact - Danielle Goodroe, Associate Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT or GRE as part of the application process. Applicants will be considered for the program based on their GMAT or GRE score, academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 Program Requirements:

Students will complete 130 credits for the Bioengineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of “B” or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Chemical Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 128 credits for the Chemical Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Civil Engineering/Business Administration (3-2 Program)

Contact: Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, College of Engineering and Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description: The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation: The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission: Students in the engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements: Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

- Students will complete 128 credits for the civil engineering degree and an additional 54 credits for the MBA degree.
- Year 1 & 2: Enrollment in required undergraduate coursework
- Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework
- Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework
- Year 5: Completion of BS and MBA coursework

Transfer Credit: Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress: Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Computer Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 129 credits for the Computer Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

**Transfer Credit** - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of “B” or higher is needed to transfer in the credits. The grade itself does not transfer.

**Satisfactory Progress** - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Computer Science/Business Administration (3-2 Program)

**Contact** - Josh LaFave, Director of Recruiting and Graduate Distance Education, Whitman School of Management Suite 315, 315-443-3497, [jjlafave@syr.edu](mailto:jjlafave@syr.edu)

Can Isik, Associate Dean, College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

**Program Description** - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

**Accreditation** - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

**Admission** - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

**Degree Requirements** - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 124 credits for the Computer Science degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

**Transfer Credit** - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of “B” or higher is needed to transfer in the credits. The grade itself does not transfer.

**Satisfactory Progress** - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Electrical Engineering/Business Administration (3-2 Program)

**Contact** - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

**Program Description** - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

**Accreditation** - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

**Admission** - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

**Degree Requirements** - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 132 credits for the Electrical Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Entrepreneurship And Emerging Enterprises Minor

ACC 201 Essentials of Accounting

FIN 301 Essentials of Finance

EEE 370 Introduction to Entrepreneurship

Three additional EEE courses, some of which have prerequisites

For information on declaring a minor in Whitman, [click here](#).

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## Entrepreneurship And Emerging Enterprises

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty George R. Burman, Randal Elder, J. Michael Haynie, G. Thomas Lumpkin, Alexander McKelvie, Minet Schindehutte, Clint B. Tankersley, William J. Walsh, Johan Wiklund

The major theme of the Martin J. Whitman School of Management is entrepreneurial management. Entrepreneurial management is defined as the ability to envision and create new business ventures whether in a startup situation or within a mature organization; the ability to identify new opportunities; and the ability to grow and renew existing businesses (including nonprofit organizations) in a healthy, productive manner. Entrepreneurs and entrepreneurial managers must deal with numerous challenges and opportunities including managing proficiently in rapidly growing global markets. These exciting challenges require new ways of thinking, creating, and managing. They also require personal courage and risk-taking.

The Entrepreneurship and Emerging Enterprises Program (EEE) is designed to link educational excellence and entrepreneurial ingenuity. Topics covered in the curriculum include the entrepreneurial mind, opportunity identification and verification, financing, venture planning, managing family and closely held enterprises, venture capital, startup challenges, legal issues facing entrepreneurs, creating an entrepreneurial culture, and building highly proficient entrepreneurial teams. Students frequently benefit from the expertise of local and national leaders in the field.

Graduates of the EEE program are particularly well-suited for the growing opportunities found in both small and large organizations requiring entrepreneurial skills. A primary educational mission of the EEE program is to help students recognize and capitalize on their own entrepreneurial potential.

### MAJOR REQUIREMENTS

Students majoring in entrepreneurship and emerging enterprises must take the following courses (credits in parentheses):

Sophomore or Junior Year

EEE 370 Introduction to Entrepreneurship and Emerging Enterprises (3)

Junior and Senior Year

Major electives (9)

Management electives (6)

Major electives are chosen from the following:

EEE 375 Entrepreneurial and Family Business Management (3)

EEE 378 Imagination, Entrepreneurship, and Creative Problem Solving (3)

EEE 382 Entrepreneurial Marketing (3)

EEE 400 Selected Topics in Entrepreneurship (3)

EEE 420 Corporate Entrepreneurship (3)

EEE 439 Entrepreneurship and Digital Commerce (3)

EEE 440 Social Entrepreneur

EEE 442 Emerging Enterprise Law (3)

EEE 443 Emerging Enterprise Consulting (3)  
EEE 444 Dilemmas and Debates in Entrepreneurship (3)  
EEE 446 Minority and Woman's Entrepreneurship (3)  
EEE 451 Finance for Emerging Enterprises (3)  
EEE 464 Entrepreneurial Empowerment (3)  
MAR 444 New Product Management (3)

Note: Students are eligible to apply for D'Aniello Entrepreneurial Internships (EEE 490), which may be taken for up to 3 credits.

Note: A major in Entrepreneurship and Emerging Enterprises requires 12 credits of EEE courses and 6 credits of management electives. The senior capstone course, EEE 457, does not count as part of the EEE major.

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## Environmental Engineering/Business Administration (3-2 Program)

Contact: Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, degoodro@syr.edu

Can Isik, Associate Dean, College of Engineering and Computer Science, 223 E Link Hall, 315-443-3604, cisik@syr.edu

Program Description: The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation: The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission: Students in the engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements: Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

- Students will complete 129 credits for the environmental engineering degree and an additional 54 credits for the MBA degree.
- Year 1 & 2: Enrollment in required undergraduate coursework
- Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework
- Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework
- Year 5: Completion of BS and MBA coursework

Transfer Credit: Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from an AACSB accredited business school. A grade of "B" or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress: Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Finance

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty Amber Anand, Tom Barkley, Anna Chernobai, Fernando Diz, Peter E. Koveos, Milena Petrova, Ravi Shukla, A. Joseph Warburton, David Weinbaum, Yildirim Yildirim, Pierre Yourougou

The study and understanding of finance is an integral component of decision-making in all areas and levels of management. Finance is a global, dynamic, and exciting discipline. It offers a unique blend of theory and practical applications. To prepare themselves for the study of finance, students should pay special attention to economics, accounting, and quantitative methods. The competitive nature of the field also necessitates a deep commitment and the appropriate work ethic. Since finance is a forward-looking discipline, those wishing to pursue a finance career should be willing to function in a world full of challenges and uncertainty. Whether it entails working on Wall Street or for a multinational company in Shanghai, the profession offers opportunities that can be both intellectually and professionally rewarding.

Offerings include courses in financial management, investments, the security market, international finance, distress investing, portfolio management, financial engineering, and financial institutions.

### MAJOR REQUIREMENTS

In addition to the FIN 256 core requirement, students majoring in finance must take the following courses (credit hours in parentheses):

Junior and Senior Year  
FIN 345 Financial Management (3)  
FIN 346 Investments (3)  
FIN electives (6)  
Management Electives (6)

Finance electives may be chose from the following:

FIN 355 Money and Banking (3)  
FIN 378 Financial Planning (3)  
FIN 400 Selected Topics (3)  
FIN 453 New and Emerging Markets (3)  
FIN 457 International Financial Management (3)  
FIN 458 Financial Institutions and Portfolio Management (3)  
FIN 459 Introduction to Derivatives (3)  
FIN 461 Financial Modeling (3)  
FIN 463 Modeling for Investment Banking, Equity Research, and Credit Analysis (3)  
FIN 464 Institutional Trading (3)  
FIN 465 The Securities Market (3)  
FIN 466 Value/Distress Investing (3)  
FIN 468 Seminar in Finance (3)  
FIN 469 Distress Investing (3)  
FIN 471 Financial Institutions and Markets (3)  
FIN 472 Case Studies in Real Estate Investment and Finance (3)  
RES 443 Real Estate Capital Markets (3) or RES 462 Real Estate Finance and Investment (3)  
EEE 451 Finance for Emerging Enterprises (3)

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## Finance Minor

ACC 151 Introduction to Accounting for Non-Management Students  
ACC 252 Introduction to Managerial Accounting  
FIN 301 Essentials of Finance  
EEE 370 Introduction to Entrepreneurship  
Two 300-level or higher FIN electives for which student has taken prerequisites.\*  
\*MAS 261/362 or MAT 221/222 are required for many FIN electives.

For information on declaring a minor in Whitman, [click here](#).

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## General Management Studies

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty: See “Faculty, Martin J. Whitman School of Management.”

The program in general management studies is offered for students whose career goals require a broad knowledge of the functional areas of management rather than a specialization in a specific area. The program is designed primarily for students planning to enter a small business, where a specialization, such as in accounting or marketing, is not as appropriate an educational background as is extensive upper-division coursework in three or four functional areas.

### MAJOR REQUIREMENTS

Student works with an advisor to construct an 18-credit program in upper-division management coursework beyond the core requirements.

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## International Business Minor

ACC 201 Essentials of Accounting  
EEE 370 Introduction to Entrepreneurship  
FIN 301 Essentials of Finance  
SOM 354 Managing in a Global Setting

Two additional courses, some of which have prerequisites, approved as international business electives. This includes MAR 456, FIN 453, FIN 457, LPP 459, SCM 421, any course with an INB prefix, and any approved course taken at one of the SU Abroad centers. A maximum of 3 credits may be earned through an approved internship.

For information on declaring a Whitman minor, click [here](#).

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## Management

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty Natarajan Balasubramanian, Pamela Brandes, Kristin Byron, Donald Cardarelli, Ravi Dharwadkar, Yitzhak Fried, Dennis J. Gillen, Lisa Knych, Catherine Maritan, Kira Reed

The major in management prepares students for professional positions that involve both macro and micro organizational processes and systems in corporations and their environments. Many Whitman students desire to join management training programs at multi-national corporations or the professional consulting firms that serve these global corporations; and others will go on to law school or another professional school. The major in management will give students the content and the context to develop the skills and perspectives to become managers and leaders in their chosen organizations and professions. Students are often attracted to the major because of its focus on the specific theory and practice of managing people and organizations.

The management major serves as a logical complement to other technical majors at Whitman and across campus. The knowledge and practices developed in the required courses allow graduates to analyze and use all the organizational processes and resources necessary to manage their positions and other employees. The diverse but focused interests of the department faculty provide the multiple foundations needed to develop the integrated sets of skills and perspectives to manage in today's corporations and their complex environments.

### MAJOR REQUIREMENTS

#### Junior Year

SHR 346 Organization Behavior (3)

Management elective(s) (0-6)

#### Senior Year

SHR 447 Advanced Topics in Strategic Management (3)

SHR 462 Leadership and Organization Change (3)

LPP 467 Management and Ethics (3)

Management elective(s) (0-6)

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## Management Studies Minor

ACC 201 Essentials of Accounting

FIN 301 Essentials of Finance

LPP 255 Introduction to the Legal System

SHR 355 Strategic Human Resource Management

MAR 301 Essentials of Marketing

EEE 370 Introduction to Entrepreneurship

For information on declaring a Whitman minor, click [here](#).

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## Marketing Minor

ACC 201 Essentials of Accounting

FIN 301 Essentials of Finance

EEE 370 Introduction to Entrepreneurship

MAR 301 Essentials of Marketing

Two additional MAR courses, some of which have prerequisites, or other courses approved as marketing electives

For information on declaring a minor in Whitman, click [here](#).

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## Marketing Management

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty Amiya Basu, Linda M. Cushman, Scott Fay, Dinesh Gauri, E. Scott Lathrop, Eunhyu Lee, Tridib Mazumdar, Amanda G. Nicholson, S.P. Raj, Breagin Riley, Susan Smith, Clint B. Tankersley, Frances Gaither Tucker, Raymond M. Wimer

The marketing management program in the Whitman School is designed for students to encounter all the basic challenges in the industry: how a company decides what to sell, the customers and market to target, and the best means of reaching them. In many courses, students work in project teams—just as professionals do—to create strategies for product development, pricing, promotion, and distribution. Students learn to respond to the demands of competitors, the government, and larger social issues.

Marketing graduates are prepared for broad and promising career options, including advertising and promotion management, business-to-business marketing, consulting, marketing management, marketing research, new product development, product and brand management, retailing and wholesaling, and sales management.

## MAJOR REQUIREMENTS

In addition to the MAR 255 core requirement, students majoring in marketing must take the following courses (credit hours in parentheses):

Junior and Senior Year

MAR 356 Marketing Research (3)

Major electives (9)

Management electives (6)

Note: All marketing management majors are required to take MAR 356. Other major courses depend on career objectives and should be selected with the assistance of a major advisor. Management electives in the major area of specialization are identified for each marketing management student in consultation with a departmental advisor.

Marketing major electives may be chosen from the following:

MAR 307 Sales and Strategic Partnerships (3)

MAR 357 Consumer Behavior (3)

MAR 400 Selected Topics in Marketing (3)

MAR 401 Electronic Retailing and Marketing (3)

MAR 407 Sales Management in B2B Markets (3)

MAR 444 New Product Management (3)

MAR 445 Brand Management (3)

MAR 455 Marketing Communications\* (3)

MAR 456 Global Marketing Strategy (3)

SCM 401 Supply Chain and Logistics Management (3) or RMT 301 Retailing Fundamentals (3)

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## Mechanical Engineering/Business Administration (3-2 Program)

Contact - Danielle Goodroe, Assistant Director, Graduate Recruitment, Whitman School of Management, Suite 315, 315-443-3006, [degoodro@syr.edu](mailto:degoodro@syr.edu)

Can Isik, Associate Dean, LC Smith College of Engineering & Computer Science, 223 E Link Hall, 315-443-3604, [cisik@syr.edu](mailto:cisik@syr.edu)

Program Description - The joint B.S. Engineering/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the L.C. Smith College of Engineering and Computer Science and an MBA degree in the Whitman School of Management in five years with minimal additional expense and time.

Accreditation - The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

Admission - Students in the Engineering school will apply for the MBA program during their sophomore year. Students are required to take the GMAT as part of the application process. Applicants will be considered for the program based on their GMAT score, previous academic experience, work experience, professional references, and personal statements.

Degree Requirements - Students admitted to the MBA program will be awarded their B.S. in engineering degree concurrently with their MBA degree, as they will complete their B.S. and MBA requirements during their fifth year.

3+2 program requirements:

Students will complete 128 credits for the Mechanical Engineering degree and an additional 54 credits for the MBA degree.

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework

Year 4: Enrollment in some MBA courses and summer MBA internship, continued progress in undergraduate coursework

Year 5: Completion of BS and MBA coursework

Transfer Credit - Students can transfer a maximum of 6 credits of elective coursework for the MBA degree. The credits must be graduate level taken from

an AACSB accredited business school. A grade of “B” or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress - Students are required to maintain a GPA of 3.0 or higher to meet degree requirements for the MBA.

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## Real Estate

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty Milena Petrova, Yildirim Yildirim

The real estate major focuses on the management perspective of real estate and real life experiences. The major provides students with the skill set and knowledge required to excel in the increasingly competitive landscape of real estate industry. An understanding of real estate fundamentals, and the capacity to maintain this knowledge base in a changing commercial environment, is an emphasis of the program, as is the ability to critically examine real estate financial information from diverse and conflicting sources. Students graduate from the real estate program with an understanding of the economic and environmental impact of real estate and seek positions in the expanding real estate job market throughout the world.

### MAJOR REQUIREMENTS

Students majoring in real estate must take the following courses (credit hours in parentheses):

Junior and Senior Year

RES 431 Real Estate Principles (3)

RES 462 Real Estate Finance and Investment (3) or

RES 442 Real Estate Development Process (3)

RES electives (6)

Management Electives (6)

Real Estate electives may be chosen from the following:

RES 400 Special Topics in Real Estate (3)

RES 442 Real Estate Development Process (3)

RES 443 Real Estate Capital Markets (3)

RES 462 Real Estate Finance and Investment (3)

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## Real Estate Minor

ACC 201 Essentials of Accounting

FIN 301 Essentials of Finance

EEE 370 Introduction to Entrepreneurship

RES 431 Real Estate Principles

RES 442 Sales and Strategic Partnerships or RES 462 Real Estate Finance and Investment

One additional RES elective for which student has prerequisites

For information on declaring a minor in Whitman, [click here](#).

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## Retail Management

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty Linda M. Cushman, Amanda G. Nicholson, Raymond M. Wimer

Today's global marketplace demands skilled managers and leaders. The retail management program in the Whitman School prepares students for careers as buyers, store managers, apparel product developers, and sales and marketing representatives. The retail management faculty is committed to becoming an internationally recognized leader in providing the marketplace with well-educated, highly effective executives, advocates, and entrepreneurs. This major offers a student-centered approach to learning in partnership with national and international corporations and organizations. Through experienced faculty and visiting industry professionals, the program provides the basis of theoretical and practical knowledge that students need to succeed in the competitive and ever-changing environment.

Students in our programs participate in a wide variety of coursework and activities that prepare them for success in the field. Among the many opportunities are the college's Martin and Phyllis Berman Lecture Series, which brings prominent CEOs and entrepreneurs to campus to meet and address the student body, and a variety of supervised field trips that enable students to explore the current business environment. Students are encouraged to spend a semester abroad in one of our many Syracuse University centers, which also offer appropriate coursework for the discipline.

## MAJOR REQUIREMENTS

All retail management majors are required to take RMT 301, RMT 307, RMT 333\*, and RMT 475\*. Two other major courses, and management electives, depend on career objectives and should be selected with the assistance of a major advisor.

\* Students must complete RMT 333 and RMT 475 for the major. These courses must be used as management electives or free electives as advised.

Sophomore Year

RMT 301 Retailing Fundamentals (3)

Junior and Senior Year

RMT 333 Professional Practice (1)

RMT 307 Sales and Strategic Partnerships (3)

RMT 407 Retail Buying and Planning (3)

RMT 475 Supervised Internship (2)

Major elective (3)

Management elective (3)

Major elective may be chosen from the following:

RMT 314 Product Development for Retail (3)

RMT 357 Visual Merchandising and Store Planning (3)

RMT 457 Electronic Retailing and Marketing (3)

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## Retail Management Minor

Retail Management Minor

Requirements:

ACC 201 Essentials of Accounting

FIN 301 Essentials of Finance

EEE 370 Introduction to Entrepreneurship

RMT 301 Retailing Fundamentals

RMT 307 Sales and Strategic Partnerships

One additional 3-credit RMT course

Total Credits: 18

For information on declaring a minor in Whitman, [click here](#).

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## Strategic Management Minor

ACC 201 Essentials of Accounting

FIN 301 Essentials of Finance

LPP 255 Introduction to the Legal System

SHR 247 Introduction to Strategic Management

EEE 370 Introduction to Entrepreneurship

One 300- or 400-level SHR or LPP course for which the student has taken prerequisites, or SOM 354

For information on declaring a minor in Whitman, [click here](#).

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## Supply Chain Management

Contact: Office of Undergraduate Programs, 215 Whitman School of Management, 315-443-2361.

Faculty Frederick Easton, Burak Kazaz, Gary LaPoint, Julie Niederhoff, Patrick Penfield, Frances Gaither Tucker

A new kind of enterprise is emerging—the supply chain. A supply chain is a pipeline of information and materials, frequently global in scope. It includes not only the organization but also the suppliers, buyers, and others with whom it interacts.

Supply chain management requires a distinctive view of business: procurement, manufacturing, and distribution must be viewed and controlled as a seamless flow. Good supply chain managers eliminate delays and reduce the amount of resources tied up all along the chain. To perform effectively, a company must

learn to function as a single organism, and people at every level must look beyond the old rules.

An understanding of supply chain management is an asset to any manager, and there is a strong demand for specialists who can comprehend and manage the entire chain. Building on long-established strengths, the undergraduate major offers a solid grounding in this fast-evolving specialty.

Students have the opportunity to take APICS certification exams. Furthermore, by enrolling in a set group of courses, students will be eligible for the AST&L blanket waiver for certification.

## MAJOR REQUIREMENTS

In addition to the SCM 265 core requirement, students majoring in supply chain management majors take SCM 401 and SCM 402. Students take two other major electives. The major courses depend on career objectives and should be selected with the assistance of a major advisor. Two management electives are also chosen in consultation with a departmental advisor. (Credit hours in parentheses.)

### Junior Year

SCM 401 Supply Chain and Logistics Management (3)

Major electives (0-6)

Management electives (0-6)

### Senior Year

SCM 402 Supply Chain Management Systems (3)

Major electives (0-6)

Management electives (0-6)

Two major electives may be chosen from the following:

SCM 400 Special Topics in Supply Chain Management (3)

SCM 403 Introduction to Management Science (3)

SCM 421 Fundamentals of Sourcing (3)

SCM 431 Transportation and Distribution Center Management (3)

SCM 455 Lean Six Sigma (3)

SCM 456 Introduction to Project Management (3)

SCM 459 Law for Global Business (3)

# Courses

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## Accounting

### ACC 151 Introduction to Financial Accounting 4 S

Financial accounting concepts that aid entrepreneurs, managers, investors, and creditors in planning, operating, and analyzing a business. Emphasis is on interpretation of financial statements.

ACC 201 Essentials of Accounting 3 S  
Introduction for non-Whitman students to financial and managerial accounting and reporting concepts used by entrepreneurs and managers in planning and decision making.

ACC 252 Intro to Managerial Acc 3 S  
Introduction to the role of accounting information systems in measuring performance, influencing employee behavior, and facilitating planning decisions such as what products and services to offer, in which markets, and at what prices.  
PREREQ: ACC 151.

ACC 356 Intermediate Financial Accounting I 3 S  
Double Numbered with: ACC 601  
Accounting concepts and standards. Topics include: accounting cycle; income determination; financial statements; measurement and valuation of assets including cash, investments, receivables, inventory, property, plant, and equipment, and intangibles. Additional work required of graduate students.  
PREREQ: ACC 252.

ACC 357 Intermediate Financial Accounting II 3 S  
Double Numbered with: ACC 602  
Accounting concepts and standards. Topics include: accounting cycle, financial reporting, financial statement analysis, cash flows, income tax allocation, measurement and valuation of liabilities; equity, leases, and pensions. Additional work required of graduate students.  
PREREQ: ACC 356.

ACC 363 Cost Analysis & Control 3 S  
Double Numbered with: ACC 621  
In-depth examination of costing products and services, and using cost information in planning and control decisions. Pricing, budgeting, standards, strategic cost systems, just-in-time/backflushing costing, and activity-based costing. Additional work required of graduate students. Junior standing or graduate status.  
PREREQ: ACC 252.

ACC 385 Principles of Taxation 3 S  
Double Numbered with: ACC 685  
Tax planning and taxation of business transactions, such as basis, gains, losses, nontaxable exchanges, depreciation, amortization, other business deductions, and tax credits. Research and communication skills. Extra work required of graduate students.  
PREREQ: ACC 252.

ACC 460 Principles of Fraud Examination 3 Y  
Double Numbered with: ACC 760  
Nature of occupational fraud and abuse in organizations. How and why occupational fraud is committed, detected and deterred; how to proceed if fraud is suspected. Emphasis on asset misappropriation schemes, corruption, and financial statement fraud. Additional work required of graduate students.  
PREREQ: ACC 252.

ACC 476 Auditing Theory/Practice 3 S  
Double Numbered with: ACC 726  
Audit practice and reporting on financial statements. Audit standards, the demand for auditing, and regulatory, legal, and ethical influences on auditors. Audit objectives, evidence, control environment, and risk assessments. Case studies and problems. Extra work required of graduate students.  
PREREQ: ACC 357.

ACC 477 Advanced Financial Accounting 3 S  
Double Numbered with: ACC 756  
Accounting and reporting for business combinations, foreign currency transactions, derivatives, and governmental entities. Extra work required of graduate students.  
PREREQ: ACC 357 OR 602.

ACC 481 Taxation of Business Entities 3 IR  
Double Numbered with: ACC 777  
Federal taxation of the formation, operation, liquidation, and reorganization of partnerships, subchapter C, subchapter S, and limited liability corporations. Federal taxation of partners and shareholders. Extra work required of graduate students.  
PREREQ: ACC 385 OR 685.

ACC 482 Advanced Auditing 3 Y  
Double Numbered with: ACC 747  
Seminar discussion of advanced auditing research and cases. Topics include the market for assurance services, auditor decision making, audit risk, and information systems auditing. Extra work required of graduate students.  
PREREQ: ACC 476 OR 726.

ACC 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Business Administration

BUA 200 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. First offered in Summer 2015 R

BUA 470 Experience Credit 1-6 IR  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

BUA 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

BUA 490 Independent Study 1-6 IR  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

BUA 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Entrepreneurship And Emerging Enterprises

EEE 110 Discovering the Entrepreneur Within 1 S  
Self-exploration of issues surrounding creativity, innovation, and entrepreneurship (CIE) as they apply in all facets of life. Students apply their creative potential in various contexts, including a community-based social entrepreneurship project. Students must be enrolled in the Creativity, Innovation, and Entrepreneurship Learning Community. R2, 3 credits maximum

EEE 200 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EEE 370 Introduction to Entrepreneurship and Emerging Enterprises 3 S

Course focuses on what it takes to start, grow, and sustain new ventures. Topics include: understanding entrepreneurs and their teams, evaluating opportunities, creating a venture plan, securing resources. Readings and guest lecturers emphasized.

EEE 375 Entrepreneurial and Family Business Management 3 Y  
Special issues facing entrepreneurial and family businesses: choice of organizational form, business planning, tax and compensation planning, business valuation, and succession strategies. Case studies and guest lectures.

EEE 378 Imagination, Entrepreneurship and Creative Problem Solving 3 Y  
Creativity and ideation as they relate to entrepreneurship. Perspectives on opportunity discovery and assessment are examined. Theoretical and conceptual foundations for the application of creativity to business problem solving are investigated.  
PREREQ: EEE 370.

EEE 382 Entrepreneurial Marketing 3 Y  
The interface between entrepreneurship and marketing, including both the role of entrepreneurial thinking in marketing practice, and the marketing issues in new ventures. Exploration of emerging marketing forms, including guerilla, viral, and buzz marketing.

EEE 400 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EEE 420 Corporate Entrepreneurship 3 Y  
Double Numbered with: EEE 621  
Examination of the application of entrepreneurship concepts and behaviors within established organizations, assessment of factors contributing to a company's entrepreneurial orientation, and identification of ways to foster higher levels of entrepreneurship within firms.  
PREREQ: EEE 370.

EEE 439 Entrepreneurship and Digital Commerce 3 Y  
The role of emerging digital technologies and the internet in creating entrepreneurial opportunities.  
PREREQ: EEE 370.

EEE 440 Social Entrepreneurship in Action 3 Y  
Opportunities and challenges associated with using entrepreneurial solutions to address social problems. Applications include analyzing, launching, and operating social purpose organizations.

EEE 442 Emerging Enterprise Law 3 Y  
Law as regulator of emerging enterprises: formation, financing, siting the enterprise, intellectual property, debtor-creditor relations, global markets. Law as opportunity: in emerging fields such as pollution prevention, sustainable development, and international treaties.  
PREREQ: LPP 255.

EEE 443 Emerging Enterprise Consulting 3 Y  
Students nearing the completion of their studies work in consulting teams to assist local small firms and entrepreneurs. Problems are isolated and solutions are then developed and implemented. A team consultant's report is then prepared.

EEE 444 Dilemmas and Debates in Entrepreneurship 3 Y  
Double Numbered with: EEE 644  
Designed around a series of critical dilemmas confronted by entrepreneurs when creating and growing a venture. Entrepreneurs explore with students the issues surrounding these dilemmas in a structured format. Additional work required of graduate students.

EEE 446 Minority and Woman's Entrepreneurship: Race, Gender, and Entrepreneurial Opportunity 3 Y  
Topics covered include: race, gender, and ethnicity as factors that impact entrepreneurship. The theoretical underpinnings of minority and women's entrepreneurship and their opportunities, challenges, and strategies to venture formation.

EEE 451 Finance for Emerging Enterprises 3 Y  
A hands-on case course on raising and managing working capital in the emerging enterprise. Topics include: factoring, venture capital, receivables and payables management, planning for sustainable growth, etc. Course requires use of computer spreadsheets.  
PREREQ: EEE 370.

EEE 452 International Entrepreneurship 3 Y  
Crosslisted with: INB 452; Double Numbered with: EEE 652

A fusion of two areas of study: global business and entrepreneurship. The theories, concepts, and tools of international business are discussed from the perspective of the entrepreneur. Additional work required of graduate students.

EEE 457 Strategic and Entrepreneurial Management 3 S  
The capstone integrative experience for management majors culminating in the development of a comprehensive plan for a new business venture or a nonprofit organization.

EEE 458 Business Plan Laboratory 1 S  
Applied discussions regarding research, data collection, analysis, debate, insight, and writing skills required to create quality plans for original new venture concepts. Attention is devoted to business plan logic, structure and audiences.

EEE 464 Entrepreneurial Empowerment 3  
Double Numbered with: EEE 664  
Hands-on course that introduces students to the South African context, township entrepreneurship, the basics of the consulting process, the Supporting Emerging Enterprise consulting model, and approaches to managerial issues in emerging enterprises. Offered in South Africa only.

EEE 470 Experience Credit 1-6 IR  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

EEE 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Finance

FIN 256 Corporation Finance 3 S  
General principles: promotion, methods of raising fixed capital, various types of securities, administration of income expansion, financial difficulties.  
PREREQ: ACC 252 AND ECN 203 AND (MAS 261 OR MAT 221 OR 122); COREQ: MAR 255 AND SCM 265..

FIN 301 Essentials of Finance 3 S  
Introduction to financial statement analysis and interpretation, time value of money, capital budgeting and global financial network. Students may not receive credit for FIN 301 if they receive credit for FIN 256.  
PREREQ: ACC 151 OR 201.

FIN 302 Global Financial Systems Architecture 3 Y  
Crosslisted with: GET 302  
Structures of real-world information systems in the money supply chain. Emphasis on large-scale banking organizations and their challenges in moving and processing millions of complex transactions worldwide for all types of customers.

FIN 345 Financial Management 3 S  
Problems and procedures of financial management encountered in normal operations of a corporation. Planning and controlling working capital needs. Capital budgeting. Financial capital needs. Dividend and expansion policies.  
PREREQ: FIN 256 OR 301; COREQ: MAS 362.

FIN 346 Investments 3 S  
Analytical framework for investment decision making. Principles and techniques of analyzing industries and companies, managing specific portfolios.  
PREREQ: FIN 256 OR 301; COREQ: MAS 362.

FIN 355 Money & Banking 3 Y  
General principles: organization and control of the banking system, commercial bank functions and operations, organization and operation of the Federal Reserve System, and monetary theory and policy.

FIN 378 Financial Planning 3 Y  
Introduction to financial planning concepts, including analysis of personal financial statements, tax planning, credit management, retirement planning, estate planning, and insurance planning.  
PREREQ: FIN 256 OR 301.

FIN 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

FIN 453 New and Emerging Markets 3 Y  
Crosslisted with: INB 453  
Analysis of the business, economic, and financial environment of emerging markets. Portfolio investment and corporate finance in emerging markets.  
PREREQ: FIN 256 OR 301.

FIN 457 Internatl Financial Manag 3 Y  
Exchange rate, determination and forecasting, currency exposure management, international capital budgeting, cost of capital, international financial markets, currency based derivative markets, international taxation, and banking. Foreign direct investment and theory of the multinational enterprise.  
PREREQ: FIN 256 OR 301.

FIN 458 Fin Instns/Portfolio Mgmt 3 IR  
Goals, practices, and problems of various investing institutions. Modern portfolio theories and techniques.  
PREREQ: FIN 456.

FIN 459 Introduction to Derivatives 3 Y  
Double Numbered with: FIN 659  
Pricing, market structure, hedging, trading strategies, arbitrage relationships, and applications to corporate securities for options and futures contracts, swaps, and other derivative instruments. Additional work required of graduate students.  
PREREQ: FIN 256 OR 301.

FIN 461 Financial Modeling 3 Y  
Build models for financial statement analysis, valuation, capital budgeting, capital structure, portfolio selection, interest rate risk, option valuation, and other areas of finance using a computer tool such as Microsoft Excel.  
PREREQ: FIN 455.

FIN 463 Model Building for Investment Banking, Equity Research, and Credit Analysis 3 SS  
PREREQ: ACC 356.

FIN 464 Institutional Trading 3 Y  
Double Numbered with: FIN 664  
The course focuses on the practical aspects and costs of trading, and will facilitate an understanding of the trading problem, including order types, order routing processes and latest developments in securities markets and regulations. Additional work required of graduate students.

FIN 465 The Securities Market 3 Y  
Double Numbered with: FIN 665  
Role and nature of securities markets in our economy and the needs they serve. Market concept; criteria for studying the effectiveness of securities markets.  
PREREQ: (FIN 256 OR 301) AND MAS 362.

FIN 466 Value Investing 3 S  
Double Numbered with: FIN 666  
The fundamentals of value investing through the analysis of public corporate businesses and the securities and credit instruments they issue. Investment vs. speculation. Real world cases and applications. Additional work required of graduate students.  
PREREQ: FIN 256 OR 301.

FIN 468 Seminar in Finance 3 IR  
Double Numbered with: FIN 668  
Specialized work for advanced students on particular phase or topic in finance. Reading, reports, and thesis.  
PREREQ: FIN 256 OR 301.

FIN 469 Distress Investing 3 SS  
Double Numbered with: FIN 669  
The course prepares you to understand, analyze and evaluate investments in the securities of companies in financial distress. Uses a practical approach to learning as well as hands on experience analyzing actual special situations.  
PREREQ: FIN 256 OR FIN 301.

FIN 471 Financial Instit & Mkts 3 IR  
Commercial banks, savings institutions, credit unions, finance companies, investment companies, securities firms, pension funds, insurance companies, bank regulations, bank-off balance sheet activities, interest rate and exchange rate determination, interest rate management in financial institutions, financial markets and instruments, international banking.  
PREREQ: FIN 256 OR 301.

FIN 472 Case Studies in Real Estate Investment and Finance 3 Y  
Crosslisted with: RES 472; Double Numbered with: FIN 672  
The course examines different areas of the real estate market. Analysis of the real estate space market, the real estate capital markets, cash flow analysis and different financing techniques, with examples in different property types. Additional work required of graduate students.

### FIN 473 Control Investing 3 Y

Double Numbered with: FIN 673

What control investors do and how they do it: friendly and hostile takeovers, leveraged buyouts and other contests for control are covered.

PREREQ: FIN 466.

### International Business

#### INB 366 Economic Policies of the European Union 3 Y

Crosslisted with: ECN 366

Offered only in Strasbourg. European economy, with central focus on economic principles underlying decisions to create and extend scope of European Community and on economic policies EU has followed since creation.

#### INB 443 Southeast Asia in the World Political Economy 3 Y

Crosslisted with: GEO 443, IRP 443, PSC 443

Offered only in Hong Kong. Explores the historical and contemporary forces that have shaped the South East Asian region and its unique cultural, social, political and economic characteristics.

#### INB 444 Culture, Business and Political Economics in East Asia 3 Y

Crosslisted with: HST 444, IRP 444, PSC 444

Offered only in Hong Kong. Examines the historical and contemporary forces that shape the cultural, social and economic institutions in East Asia and how these institutions affect one another.

#### INB 452 International Entrepreneurship 3 Y

Crosslisted with: EEE 452; Double Numbered with: INB 652

A fusion of two areas of study: global business and entrepreneurship. The theories, concepts, and tools of international business are discussed from the perspective of the entrepreneur. Additional work required of graduate students.

#### INB 453 New and Emerging Markets 3 Y

Crosslisted with: FIN 453

Analysis of the business, economic, and financial environment of emerging markets. Portfolio investment and corporate finance in emerging markets.

PREREQ: FIN 256 OR 301.

### Law And Public Policy

#### LPP 255 Introduction to the Legal System 3 S

The legal system and public policy issues emphasizing the impact of the legal environment on management decision making. Includes ethics and international topics. Development of analytical and communication skills.

#### LPP 300 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

#### LPP 450 Sustainable Enterprise 3 Y

Crosslisted with: SHR 450

Economic, social, and environmental dimensions of sustainability and their interdependence. Influences on organizations to adopt sustainable approaches to operations and activities. Tools to promote and validate organizational sustainability. Transdisciplinary emphasis.

#### LPP 455 Law of Business Organizations 3 IR

Double Numbered with: LPP 755

Legal aspects of organizations formed to carry on business enterprises: agencies, partnerships, and corporations.

PREREQ: LPP 255 OR MBC 629 OR 643.

#### LPP 456 Land Development Law 3 IR

Double Numbered with: LPP 756

Regulations pertaining to land development. Nuisances, eminent domain, regulatory takings, zoning, growth, management controls, environmental impact analysis, and protection of sensitive land areas.

PREREQ: LPP 255 OR MBC 629 OR 643.

#### LPP 457 Law of Commercial Transactions 3 Y

Double Numbered with: LPP 757

Legal aspects of commercial transactions. Contracts, sale of goods, commercial paper, and secured transactions.

PREREQ: LPP 255 OR MBC 629 OR 643.

#### LPP 458 Environmental Law and Public Policy 3 IR

Double Numbered with: LPP 758

Range of environmental problems from a legal and public policy viewpoint: air, water, and toxics pollution; solid and hazardous waste; and environmental planning.

### LPP 459 The Law of Global Business 3 Y

Crosslisted with: SCM 459

The legal environment of international business: the framework of international law influencing international business. Topics include the international law and organizations, international contracts, carrier liability, customs, and world trade law.

PREREQ: LPP 255 AND SCM 265.

#### LPP 464 Employment Law 3 Y

The law of the employment relationship: employment-at-will, noncompete and nondisclosure covenants, equal employment opportunity legislation, labor relations and protective employment legislation.

PREREQ: LPP 255.

#### LPP 465 Business and Contemporary Society 3 IR

Role of business in contemporary society. Relations of the private and public sectors. Techniques available to business to contribute to the solution of social problems.

#### LPP 467 Management and Ethics 3 Y

Double Numbered with: LPP 767

Ethical dilemmas encountered by managers of organizations. Individual ethical responsibility versus role responsibility. Pressures within organizations to violate ethical duties. How an organization can be managed so that employees can deal effectively with ethical dilemmas. Extra work required of graduate students.

#### LPP 499 Honors Capstone Project 1-3 S

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### Marketing Management

#### MAR 255 Principles of Marketing 3 S

Marketing as a major business function and social process. Analysis of market forces. Marketing opportunities. Determination of price, product, distribution, promotion, and organization policies required to control and fulfill planned marketing programs.

PREREQ: ECN 203 AND (MAS 261 OR MAT 122 OR 221); COREQ: FIN 256 AND SCM 265.

MAR 301 Essentials of Marketing 3 S  
Exploration for non-Whitman students of the principles of marketing as a major business function and social process. Analysis of marketing forces. Marketing opportunities. Determination of price, product, distribution, promotion and organizational policies required.  
PREREQ: MINIMUM SOPHOMORE STANDING.

MAR 307 Sales and Strategic Partnerships 3 S  
Crosslisted with: RMT 307  
Applications of sales theory, concepts, training and technology in the fields of professional personal selling and sales management.  
PREREQ: MAR 255 OR 301 OR RMT 301.

MAR 356 Marketing Research 3 S  
Application of various research methods to marketing. Planning, design, execution, and interpretation of applied marketing research studies.  
PREREQ: MAR 255 OR 301; COREQ: MAS 362.

MAR 357 Consumer Behavior 3 S  
Motivation, learning theory, perception, attitude theory, and social referents: how they affect consumer behavior. Consumer measurement and strategy assessment.  
PREREQ: MAR 255 OR 301.

MAR 378 Industrial Marketing 3 IR  
Industrial market behavior and market segmentation. Planning and marketing research. Determination of price, product, distribution and promotion in the context of industrial marketing. Industrial marketing evaluation and control.  
PREREQ: MAR 255 OR 301.

MAR 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MAR 401 Electronic Retailing and Marketing 3 Y  
Crosslisted with: RMT 457  
Overview of current e-tailing practices in business to consumer marketplace. Internet technology and capabilities.  
PREREQ: MAR 255 OR 301.

MAR 407 Sales Management in B2B Markets 3 Y  
This course covers managing a sales force and a firm's selling effort. Topics include strategic planning, designing and developing a sales force, managing major accounts, sales marketing alignment and how sales people create value.  
PREREQ: MAR 255 OR 301.

MAR 444 New Product Management 3 Y  
The product innovation process. Learning how managers can best use models and analytical tools to improve decision-making in the development, launch, and management of new products.  
PREREQ: MAR 255 OR 301.

MAR 445 Brand Management 3 Y  
Concepts and tools essential for performing the role of a brand manager in a dynamic and competitive market. Coordinating marketing activities to achieve a profitable and sustainable market position of the brand.  
PREREQ: MAR 255 OR 301.

MAR 455 Marketing Communications 3 Y  
Management of marketing communications. Topics include budgets, planning campaigns, controlling impact and coordinating information flows.  
PREREQ: MAR 255 OR 301.

MAR 456 Global Marketing Strategy 3 S  
Building on concepts from previous marketing courses, this capstone course provides students both research and conceptual tools for understanding and making decisions about marketing strategy in the rapidly changing global environment.  
PREREQ: MAR 255 OR 301.

MAR 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### Managerial Statistics

MAS 261 Introductory Statistics for Management 3 S  
Basic statistical theory and data analysis methods. Describing data graphically and numerically. Probability distributions. Sampling. Statistical tests and intervals. Use of computer statistics programs. Emphasis on choice, limitations, and interpretation of methods for management use.  
PREREQ: MAT 183.

MAS 362 Decision Tools for Management 3 S  
Review of important statistical concepts. Mathematical models for management data emphasizing correct use and interpretation of results. Linear and logistic regression. Time series analysis. Model assumptions and limitations.  
PREREQ: (MAT 183 OR 286 OR 296) AND (MAS 261 OR MAT 122 OR 221).

MAS 423 Introduction to Nonparametric Statistics 3 IR  
Selected nonparametric statistical methods; those requiring few assumptions about the population. Related aspects of probability theory, hypothesis formulation and testing, and estimation for population location, dispersion, and functional form.  
PREREQ: MAS 362.

MAS 465 Applied Sample Survey Methods 3 IR  
Survey methods applicable to management and other social science areas. Various sample designs: cost and accuracy, estimation for population location, dispersion, and functional form.  
PREREQ: MAS 362.

MAS 466 Data Mining for Managers 3 IR  
Statistical approach to data mining; regression, time series, and multivariate methods applied to management. Analysis of high frequency data, large data set; forecasting, classification; neural network methods; case examples.  
PREREQ: MAS 362.

MAS 477 Time Series Analysis and Forecasting 3 Y  
Basic concepts applied to management. Discrete time-series analysis for forecasting and control. Selected statistical models. Regression analysis. ARIMA methods, econometric modeling. Forecasting and business planning. Evaluation of forecasts. Case studies.  
PREREQ: MAS 362.

MAS 488 Introduction to Causal Models 3 IR  
Analytical techniques for formulating and testing structural models with applications to management situations; path analysis; case examples.  
PREREQ: MAS 362.

MAS 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Management Information Systems

### MIS 270 Experience Credit 1-6

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

### MIS 325 Introduction to Information Systems for Managers 3 S

Management and effective use of information systems and e-business technologies to improve business decision-making, conduct electronic commerce, revitalize business processes, and gain competitive advantage.

### MIS 335 Information Systems for Decision Support 3 IR

Decision-making and decision modeling skills for improving business performance. Design and programming of business applications using MS-Excel and Visual Basic Applications (VBA).

PREREQ: MIS 325.

### MIS 345 Development and Programming of Business Applications 3 IR

Use of a programming language in the structural design and implementation of business applications. Use of good software design principles and cross-platform application integration capabilities.

### MIS 355 Management of Information Systems 3 IR

Concepts and techniques in managing the development and utilization of information systems. Systems planning, development, implementation, and control.

PREREQ: MIS 325.

### MIS 365 Business Value of Information Technology 1.5 Y

Crosslisted with: GET 365

Financial measures of IT value including TCO, ROI, and NPV; non-financial dimensions of business value such as strategic fit, IT investment risk; IT governance and IT models; measuring IT performance; IT change management.

### MIS 375 Management of Information Technology Contracting 1.5 Y

Crosslisted with: GET 375

Budgeting and controlling IT costs; IT procurement including requirements specification, requests for proposals, evaluation criteria, and vendor selection; evaluating and managing vendor performance; developing and monitoring contracts.

### MIS 425 Management Information Systems Analysis and Design 3 IR

Management of information systems development from a business perspective. Focus on mainstream and emerging systems analysis and design techniques. First-hand experience with commercial tools used in information systems development projects. PREREQ: MIS 325.

### MIS 435 Principles of Database Management 3 IR

Database and data warehousing concepts, design principles, and methods of use in assisting management decision-making and in building Web-based database applications. Focus on widely used commercial database environments.

PREREQ: MIS 325.

### MIS 445 Implementing a Web-enabled Enterprise 3 IR

Double Numbered with: MIS 645

Identify a business opportunity, develop an e-business strategy, and design the web store. Gain hands-on experience in setting up a fully functional web store.

### MIS 499 Honors Capstone Project 1-3 S

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Military Science

MSL 101 Leadership and Development 0 Y  
Basic drill and ceremonies, physical conditioning, land navigation, first aid, leadership techniques, weapons familiarization, and small-unit tactics.

MSL 102 Foundations of the US Army 0 Y  
Leadership fundamentals such as goal setting, problem solving, leadership attributes, core values.

MSL 201 Innovative Team Leadership 0 Y  
Leadership strategies and styles by examining team dynamics and leadership theories.

MSL 202 Leadership and Problem Solving 0 Y  
Examines challenges of leading teams; exploring the dynamics of adaptive leadership, practice /assess own leadership and communication styles.

### MSL 301 Leading Small Organizations 0 Y

This course is designed to teach small unit leadership and introduce students to the planning process and Army operations.

MSL 302 Advanced Leadership 0-1 Y  
Junior- and senior-level courses expanding on basic subject areas. Leadership and management development: command, control, staff operations, planning and organizing.

### MSL 371 Leading Small Organizations 3 Y

Crosslisted with: O&M 371

This course is designed to teach small unit leadership and introduce students to the planning process and Army operations. This course is preparation for the Leader Development and Assessment Course of the U.S. Army.

### MSL 372 Practicum in Leading Small Organizations 3 Y

Crosslisted with: O&M 372

This course uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading operations up to platoon level. Cadets review aspects of combat, stability, and support operations. They also conduct military briefings and develop proficiency in garrison operation orders.

### MSL 401 Military Professionalism and Ethics 0-3 Y

Crosslisted with: O&M 401

How Army values and leader ethics are applied and how they are relevant to everyday life.

### MSL 402 Leadership in a Complex World 0-3 Y

Crosslisted with: O&M 402

Examines dynamics of leading in complex situations. Study rules of engagement in the face of international terrorism and interacting with non government organizations.

## Organization And Management

### O&M 371 Leading Small Organizations 3 Y

Crosslisted with: MSL 371

This course is designed to teach small unit leadership and introduce students to the planning process and Army operations. This course is preparation for the Leader Development and Assessment Course of the U.S. Army.

## O&M 372 Practicum in Leading Small Organizations 3 Y

Crosslisted with: MSL 372

This course uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading operations up to platoon level. Cadets review aspects of combat, stability, and support operations. They also conduct military briefings and develop proficiency in garrison operation orders.

## O&M 401 Military Professionalism and Ethics 0-3 Y

Crosslisted with: MSL 401

How Army values and leader ethics are applied and how they are relevant to everyday life.

## O&M 402 Leadership in a Complex World 0-3 Y

Crosslisted with: MSL 402

Examines dynamics of leading in complex situations. Study rules of engagement in the face of international terrorism and interacting with non government organizations.

## O&M 405 Concepts of Air Force Management 0-3 Y

Crosslisted with: ASC 305

Theory and application of general concepts of leadership to Air Force situations. Group discussions, case studies, and role playing. Oral and written reports.

## O&M 406 Concepts of Air Force Management 0-3 Y

Crosslisted with: ASC 306

General theory and practice of management, especially in the Air Force. Information systems, quantitative approaches to decision making, and resource control techniques used by Air Force managers.  
PREREQ: O&M 405 OR ASC 305.

## Personnel Relations

PIR 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Quantitative Methods

QUM 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member R2, 3 credits maximum

## Real Estate

### RES 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### RES 431 Real Estate Principles 3 Y

The understanding of real estate fundamentals, including roles, activities, terminology, transaction processes and how the tools and models in real estate are used to make informed decisions, with emphasis on developing valuation skills.  
PREREQ: FIN 256 OR 301.

### RES 442 Real Estate Development 3 Y

Double Numbered with: RES 642  
Build understanding of the real estate development process. Deliver the prerequisite understanding of terms, concepts and competencies necessary for a basic understanding of and participation in real estate development.  
PREREQ: FIN 256 OR 301.

### RES 443 Real Estate Capital Markets 3 Y

Double Numbered with: RES 643  
Real estate debt and equity instruments. Primary and secondary mortgage markets, mortgage banking, loan instruments, and securitization. Lender and borrower decisions regarding real estate financing. Additional work required of graduate students.  
PREREQ: FIN 256 OR 301 AND RES 431.

### RES 462 Real Estate Finance and Investment 3 Y

Real estate investment, finance, and valuation. Different measures of investment performance, impact of the financing decision, and various real estate financing techniques.  
PREREQ: RES 431.

### RES 470 Experience Credit 1-6 R

### RES 472 Case Studies in Real Estate Investment and Finance 3 Y

Crosslisted with: FIN 472; Double Numbered with: RES 672  
The course examines different areas of the real estate market. Analysis of the real estate space market, the real estate capital markets, cash flow analysis and different financing techniques, with examples in different property types. Additional work required of graduate students.  
PREREQ: FIN 256 AND RES 431.

## Retail Management

### RMT 301 Retailing Fundamentals 3 S

Retail mix: location, layout, organization, merchandise, pricing, customer services, sales promotion, and consumer trends. Retail research introduced through examination of target market and demographics.

### RMT 307 Sales and Strategic Partnerships 3 S

Crosslisted with: MAR 307

Applications of sales theory, concepts, training and technology in the fields of professional personal selling and sales management.  
PREREQ: MAR 255 OR 301 OR RMT 301.

### RMT 314 Product Development for Retail Management 3 S

Processes involved in total soft goods product development cycle from managerial perspective. Includes forecasting, costing, pricing, global trade agreements, tariffs, sourcing, distribution, and marketing.  
PREREQ: RMT 301.

### RMT 333 Professional Practice 1 S

Necessary career skills and job search strategies to be successful on their career track. Topics include networking tactics, cover letter composition, resume writing, interview skills, and on-the-job interpersonal strategies.

### RMT 357 Visual Merchandising and Store Planning 3 S

Composition, color, and design theory applied to merchandise display in retail setting. Fundamentals of store planning: space allocation, lighting, exteriors.  
PREREQ: RMT 301.

### RMT 407 Retail Buying and Planning 3 Y

Introduction to the fundamental strategies and mathematical calculations used in the retail industry including financial strategy, buying strategy, and pricing strategy.  
PREREQ: RMT 301.

### RMT 457 Electronic Retailing and Marketing 3 Y

Crosslisted with: MAR 401

Overview of current e-tailing practices in business to consumer marketplace. Internet technology and capabilities.  
PREREQ: MAR 255 OR 301 OR RMT 301.

### RMT 475 Supervised Internship 2 Y

Individual work experience related to student's major area of interest and career goal. On-the-job supervised experience integrated with classroom history.  
PREREQ: RMT 333.

RMT 490 Independent Study 1-6 IR  
R

RMT 499 Honors Capstone Project 1-6  
R

### Supply Chain Management

SCM 265 Introduction to Supply Chain Management 3 S

The concepts, issues, and techniques for managing supply chains. Analysis and problems of material and information flows in supply chains. Must be taken with FIN 256 and MAR 255.

PREREQ: (ECN 203 OR (ECN 101 AND ECN 102)) AND (MAS 261 OR MAT 122 OR 221).

SCM 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SCM 401 Supply Chain and Logistics Management 3 S

Influence of supply chain management and logistics on corporate strategy and profitability. Topics include transportation economics and operations, customer service, and international logistics, as well as other related topics.

PREREQ: MAR 255 AND SCM 265.

SCM 402 Supply Chain Management Systems 3 Y

Supply chain management systems: electronic communication, scanning, and tracking systems, enterprise-wide transactional systems, material and distribution requirements planning, supply chain planning.

PREREQ: MAR 255 AND SCM 265.

SCM 403 Introduction to Management Science 3 Y

Modeling techniques and applications for managerial decision making.

PREREQ: MAS 261 OR MAT 122 OR 221.

SCM 421 Fundamentals of Sourcing 3 Y

Impact of purchasing and supply chain management on competitive success. Ethical, contractual, and legal issues faced by purchasing professionals. Strategic nature of purchasing, negotiating tactics, and cutting-edge technology used in "world class" purchasing departments.

PREREQ: MAR 255 AND SCM 265.

SCM 431 Transportation and Distribution Center Management 3 Y

Explores carrier management and operations. Studies distribution center design and operations in-depth. Includes hands-on experience in working real world distribution center and transportation problems.

PREREQ: MAR 255 AND SCM 265.

SCM 455 Lean Six Sigma 3 Y

Double Numbered with: SCM 755

Six sigma process-improvement approach focused on quality, reliability and value to customers. Skills include techniques for the define, measure, analyze, improve and control (DMAIC) approach. Lean concepts from supply chain management. Additional work required of graduate students.

PREREQ: SCM 265 AND MAS 362.

SCM 456 Introduction to Project Management 3 Y

Elements of successful project management. The organization and planning necessary from requirements definition to project closure. Project management processes and techniques.

PREREQ: SCM 265.

SCM 459 The Law of Global Business 3 Y  
Crosslisted with: LPP 459

The legal environment of international business: the framework of international law influencing international business. Topics include the international law and organizations, international contracts, carrier liability, customs, and world trade law.

PREREQ: SCM 265 AND LPP 255.

SCM 477 Global Supply Chain Management 3 Y

This course covers global facility network design, logistical planning across borders, the impact of duties, duty drawbacks and tax differentials, and benefits and risks (e.g. disruption) in outsourcing and offshoring manufacturing and service operations.

PREREQ: SCM 265.

SCM 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### Strategy And Human Resources

SHR 247 Introduction to Strategic Management 3 S

How a firm's leadership structure guides the strategic management process. Topics covered include the role of the CEO and top management team, internal and external analysis and strategy formulation and implementation.

SHR 346 Organizational Behavior 3 Y  
Individual and group behavior in complex organizations. Influence of organization structure and management practices on individual and group work behavior.

SHR 355 Strategic Human Resource Management 3 S

Human resources as a source of competitive advantage and financial performance. Employment law, reward and control systems, human resource architecture, workforce development.

SHR 447 Advanced Topics in Strategic Management 3 Y

Solution of unstructured managerial problems requiring the application of students' integrated knowledge of the management curriculum using comprehensive organizational case problems.

PREREQ: SHR 247 AND FIN 256 AND MAR 255 AND SCM 265.

SHR 448 Management in a Cross-cultural Environment 3 IR

Factors that have an impact on managerial effectiveness in an international organization: language, religion, values and attitudes, educational structure, social organization, technology, political climate, and legal environment.

PREREQ: SOM 354.

SHR 450 Sustainable Enterprise 3 Y  
Crosslisted with: LPP 450

Economic, social, and environmental dimensions of sustainability and their interdependence. Influences on organizations to adopt sustainable approaches to operations and activities. Tools to promote and validate organizational sustainability. Transdisciplinary emphasis.

SHR 454 Compensation Administration 3 IR

Double Numbered with: SHR 754

Concepts, models, theories, and legislation related to employee compensation: wage theory, job analysis, job evaluation, job structure pricing, employee motivation, individual appraisal and reward, and benefits.

PREREQ: SHR 355 OR 656.

SHR 462 Leadership and Organization Change 3 Y

Double Numbered with: SHR 762

Nature of the organizational development field and dominant methods, models and perspectives taken. Opportunities provided to increase skills and effectiveness in diagnosing and intervening in ongoing systems.

SHR 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project  
under the supervision of a faculty member. R2,  
3 credits maximum

#### School Of Management

SOM 110 Management Learning  
Community Seminar 1 Y  
Discussion of connections between coursework  
and out-of-classroom experiences. Divided  
into three sections: how one learns, process of  
learning, and impact of learning environment.  
COREQ: SOM 122 AND WRT 105.

SOM 122 Perspectives of Business and  
Management 3 Y  
Understanding of role and responsibility of  
management in society; fundamental  
knowledge of nature and integration of  
functional disciplines in business; skills  
essential to effective management;  
development of base for academic/career  
mission and achievement.

SOM 144 Transition to Whitman School  
of Management 1 S  
Introduction to Whitman School of  
Management and Syracuse University for  
external transfer students. Topics include rules  
and regulations, programs, academic  
opportunities, and Syracuse and campus life.  
Reading and writing on University life and  
issues.

SOM 201 Community Service for  
Management Students 0 S  
Students develop and practice leadership skills  
in public or not for profit agencies by  
integrating and applying academic knowledge  
to problems. Designed to cultivate in students  
the commitment for a lifetime participation  
in the community.

SOM 290 Independent Study 1-6 IR  
Exploration of a problem, or problems, in  
depth. Individual independent study upon a  
plan submitted by the student. Admission by  
consent of supervising instructor(s) and the  
department. 1, 6 credits maximum

SOM 301 Internship for Management  
Students 0 S  
Students develop and practice leadership skills  
by applying knowledge gained in their  
academic program to business problems and  
needs. Intended to encourage mutually  
beneficial relationships among students and  
businesses.

SOM 354 Managing in a Global Setting 3  
S  
Introduction to the concepts, framework, and  
issue of global business and how they influence  
management decisions: multinational firms;  
international trade; and the cultural, political,  
institutional, social, and economic  
environment of the global marketplace.

SOM 490 Independent Study 1-6  
R

SOM 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project  
under the supervision of a faculty member. R2,  
3 credits maximum

# Faculty

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Susan Albring, Associate Professor of Accounting  
Ph.D., University of Arizona, 2003

Alejandro Amezcua, Assistant Professor of Entrepreneurship  
Ph.D., Syracuse University, 2011

Amber Anand, Associate Professor of Finance  
Ph.D., Baruch College, 2001

Kofi Appiah Okyere, Assistant Professor of Accounting  
Ph.D., University of Wisconsin-Madison, 2005

Natarajan Balasubramanian, Associate Professor of Management  
Ph.D., University of California, Los Angeles, 2007

Tom Barkley, Assistant Professor of Finance  
Ph.D., University of Florida, 2007

Amiya Basu, Professor of Marketing  
Ph.D., Stanford University, 1984

Michel Benaroch, Associate Dean for Research, Professor of Management Information Systems  
Ph.D., New York University, 1992

Pamela Brandes, Associate Professor of Management  
Ph.D., University of Cincinnati, 1997

George R. Burman, Professor of Entrepreneurship  
Ph.D., University of Chicago, 1973

Kristin Byron, Chair and Associate Professor of Management  
Ph.D., Georgia State University, 2003

Donald Cardarelli, Assistant Professor of Management  
M.B.A., Syracuse University, 1989; Ph.D. (honorary), Nazareth College, 1997

Anna Chernobai, Assistant Professor of Finance  
Ph.D., University of California at Santa Barbara, 2006

Major Coleman IV, Assistant Professor of Finance  
Ph.D., University of California, Irvine, 2012

Joseph Comprix, Chair and Associate Professor of Accounting  
Ph.D., University of Illinois, 2000

Linda M. Cushman, Associate Professor of Retail Management  
Ph.D., University of Tennessee-Knoxville, 1995

Ravi Dharwadkar, Professor of Management  
Ph.D., University of Cincinnati, 1997

Fernando Diz, Martin J. Whitman Professor of Finance, Director of Ballentine Investment Institute  
Ph.D., Cornell University, 1989

Frederick Easton, Professor of Supply Chain Management, Director of the Robert H. Brethen Operations Management Institute  
Ph.D., University of Washington, 1986

Gerald Edmonds, Adjunct Professor, Marketing  
Ph.D., Syracuse University, 1997

Randal Elder, Professor of Accounting  
Ph.D., Michigan State University, 1993

Scott Fay, Associate Professor of Marketing  
Ph.D., University of Michigan, 2001

Mitchell Franklin, Assistant Professor of Accounting Practice  
Ph.D., Walden University, 2009

Yitzhak Fried, Professor of Management  
Ph.D., University of Illinois at Urbana-Champaign, 1985

Dinesh Gauri, Associate Professor of Marketing  
Ph.D., State University of New York at Buffalo, 2007

Will Geoghegan, Visiting Assistant Professor of Management  
Ph.D., National University of Ireland, Galway, 2009

Dennis J. Gillen, Associate Professor of Management  
Ph.D., University of Maryland, 1981

Denis Grégoire, Assistant Professor of Entrepreneurship  
Ph.D., University of Colorado at Boulder, 2005

David Harris, Professor of Accounting, Director of Bennett Center for Tax Research  
Ph.D., University of Michigan, 1994

Jeffrey Harris, Dean's Professor of Finance  
Ph.D., Ohio State University, 1995

Donald Harter, Associate Dean for Masters Programs, Associate Professor of Management Information Systems  
Ph.D., Carnegie Mellon University, 2000

J. Michael Haynie, Barnes Professor of Entrepreneurship  
Ph.D., University of Colorado at Boulder, 2005

Badr Ismail, Professor Emeritus of Accounting  
Ph.D., University of Illinois, 1974

Kenneth A. Kavajecz, Dean of the Martin J. Whitman School of Management  
Ph.D., Northwestern University, 1997

Burak Kazaz, Associate Professor of Supply Chain  
Ph.D., Purdue University, 1997

Bruce Kingma, Professor of Entrepreneurship and Emerging Enterprises, Professor of Information Studies  
Ph.D., University of Rochester, 1989

Lisa Knych, Assistant Professor of Law and Public Policy  
J.D., Syracuse University, 1985

Roger Koppl, Professor of Finance  
Ph.D., Auburn University, 1988

Alexandra Kostakis, Assistant Professor of Entrepreneurial Practice  
M.B.A., New York University, 1995

Peter E. Koveos, Walter and Olivia Kiebach Chair in International Business, Professor of Finance, Senior Director of International Programs  
Ph.D., Pennsylvania State University, 1977

Gary LaPoint, Assistant Professor of Supply Chain Practice  
M.B.A., Syracuse University, 1987

E. Scott Lathrop, Professor of Marketing Practice  
Ph.D., Cornell University, 1994

Eunkyu Lee, Chair and Professor of Marketing  
Ph.D., Duke University, 1993

Lihong Liang, Assistant Professor of Accounting  
Ph.D., Pennsylvania State University, 2002

Susan Long, Associate Professor of Managerial Statistics, Co-Director of Transactional Records Access Clearinghouse  
Ph.D., University of Washington, 1980

G. Thomas Lumpkin, The Chris J. Witting Chair in Entrepreneurship  
Ph.D., University of Texas at Arlington, 1996

Catherine Maritan, Associate Professor of Management  
Ph.D., Purdue University, 1998

Tridib Mazumdar, Howard R. Gendal Professor of Marketing  
Ph.D., Virginia Polytechnical Institute, 1987

Alexander McKelvie, Chair and Associate Professor of Entrepreneurship  
Ph.D., Jönköping International Business School, 2007

Maria Minniti, Bantle Chair in Entrepreneurship and Public Policy  
Ph.D., New York University, 1997

MaryAnn Monforte, Assistant Professor of Accounting  
M.B.A., Syracuse University, 1995

Todd Moss, Assistant Professor of Entrepreneurship  
Ph.D., Texas Tech University, 2010

D. Craig Nichols, Assistant Professor of Accounting  
Ph.D., Indiana University, 2005

Amanda G. Nicholson, Associate Dean for Undergraduate Programs and Professor of Retail Practice  
Ph.D., Syracuse University, 2011

Georgette Nicolaides, Assistant Professor of Statistics Practice  
M.B.A., University of Texas at Arlington, 2003

Julie Niederhoff, Assistant Professor of Supply Chain Management  
Ph.D., Washington University in St. Louis, 2007

Patrick Penfield, Assistant Professor of Supply Chain Practice  
M.B.A., Le Moyne College, 1998

John Petosa, Professor of Accounting Practice  
J.D., Syracuse University, 1995

Milena Petrova, Assistant Professor of Finance  
Ph.D., University of Florida, 2006

S.P. Raj, Distinguished Professor of Marketing  
Ph.D., Carnegie Mellon University, 1980

Lindsay Rapp, Assistant Dean of Undergraduate Programs  
M.A., George Washington University, 2007

Kira Reed, Associate Professor of Management  
Ph.D., University of Connecticut, 2000

Daniel Rice, Assistant Professor of Practice, Law and Public Policy  
J.D., Syracuse University, 1990

Breagin Riley, Assistant Professor of Marketing  
Ph.D., Northwestern University, 2009

Minet Schindehutte, Associate Professor of Entrepreneurship  
Ph.D., University of South Africa, 1990

Peter Scott, Assistant Professor of Entrepreneurial Practice  
M.B.A., University of Michigan, 1994

Ravi Shukla, Associate Professor of Finance  
Ph.D., State University of New York at Buffalo, 1989

Susan Smith, Professor of Marketing Practice  
M.B.A., Boston College, 1981

Clint B. Tankersley, Associate Professor of Marketing  
Ph.D., University of Cincinnati, 1974

Alex Thevaranjan, Associate Professor of Accounting  
Ph.D., University of Minnesota, 1993

John Torrens, Assistant Professor of Entrepreneurial Practice  
Ph.D., Northcentral University, 2004

Frances Gaither Tucker, Associate Professor of Marketing and Supply Chain Management  
Ph.D., Ohio State University, 1980

Raja Velu, Professor of Managerial Statistics  
Ph.D., University of Wisconsin, 1983

Padmal Vitharana, Associate Professor of Management Information Systems  
Ph.D., University of Wisconsin-Milwaukee, 2000

Ginger Wagner, Assistant Professor of Accounting Practice  
M.B.A., Syracuse University, 2003

William J. Walsh, Assistant Professor of Accounting Practice, Director of Joseph I. Lubin School of Accounting  
M.B.A., Syracuse University, 1989

A. Joseph Warburton, Assistant Professor of Finance  
J.D., University of Michigan, 1996; Ph.D., University of Michigan, 2009

David Weinbaum, Associate Professor of Finance  
Ph.D., New York University, 2002

Johan Wiklund, Professor of Entrepreneurship  
Ph.D., Jönköping International Business School, 1998

Raymond M. Wimer, Professor of Retail Practice  
M.S., Syracuse University, 1998

Yildirim Yildirim, Chair and Associate Professor of Finance  
Ph.D., Cornell University, 2001

Pierre Yourougou, Clinical Associate Professor of Finance  
Ph.D., New York University, 1996

Joyce Zadzilka, Assistant Professor of Accounting Practice  
M.B.A., Syracuse University, 1996

# Maxwell School Of Citizenship And Public Affairs

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James B. Steinberg, Dean  
200 Eggers Hall  
[www.maxwell.syr.edu/](http://www.maxwell.syr.edu/)

## About The School

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200 Eggers Hall

The Maxwell School of Citizenship and Public Affairs was established in 1924 to develop public sector leaders who have strong social science backgrounds and the practical skills required to lead large public organizations. Today the School is the home to six social science academic disciplines, an interdisciplinary doctoral program in social sciences, and two graduate professional degree programs that train public leaders for careers here and abroad.

With its 157 faculty members, 105 staff, 850 graduate students and 1,800 undergraduate majors, Maxwell members produce a significant amount of new knowledge and educate a large number of students to pursue careers in the public and private sectors, as well as careers as researchers and scholars.

For its efforts, Maxwell programs rank highly among their peers because the School attracts talented faculty and students, produces high quality scholarship, and develops already able students into eminent thinkers and analysts.

For a complete listing of faculty associated with the Maxwell School, see the “Faculty” section of this catalog.

## Executive Education

Through its executive education program, Maxwell offers several executive degrees, certificates of advanced study, and training programs for students from a number of countries who may study here for a few weeks or up to a year. Maxwell hosts Humphrey Fellows from a large number of countries; and Civic Education Leadership Fellows, Leaders for Democracy Fellows, and Edward R. Murrow Fellows from the Middle East.

## Study Abroad

Most students pursuing the International Relations degree take advantage of the Global Program offerings. Many students choose to find internships abroad and may choose to study at one of several overseas centers.

## Undergraduate Majors

Maxwell is home to the social sciences. Its faculty members teach lower-division survey courses in each of the social science disciplines, offer interdisciplinary courses in social sciences, and provide an array of majors and minors in social science areas. Undergraduate degrees are offered in anthropology, economics, geography, history, international relations, political science, policy studies, and sociology.

Students may take multiple majors within the social sciences or pursue additional majors in areas outside of the Maxwell School. Many of our undergraduate programs offer distinction in their majors. Students who graduate with distinction typically are selected for the distinction, conduct research with one or more faculty members, and write a scholarly paper based on their research.



# Courses

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## Anthropology

### ANT 100 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ANT 111 Introduction to Cultural Anthropology 3 S

Economics, politics, religion, symbolism, rites of passage, developmental cycle, and expressive culture. Required for Anthropology majors.

### ANT 112 Introduction to African American Studies in Social Sciences 3 S Crosslisted with: AAS 112

Historical and sociopolitical materials. Approaches to studying the African American experience, antecedents from African past, and special problems.

### ANT 121 Peoples and Cultures of the World 3 S

Case studies of global cultural diversity. Exploration of daily life, rites of passage, marriage, family, work, politics, social life, religion, ritual, and art among foraging, agricultural, and industrial societies.

### ANT 131 Introduction to Biological Anthropology 3 Y

Biological anthropology subfields; anthropology's relationship to history of science. Evolutionary theory; mechanisms of evolution; survey of the non-human primates; humans ancestral to modern *Homo sapiens*; and modern human variation. Required for Anthropology majors.

### ANT 141 Introduction to Archaeology and Prehistory 3 Y

Survey of the prehistoric past spanning the origins of humankind through the rise of complex societies. Class activities and field trips provide a hands on introduction to archaeological interpretation.

### ANT 145 Introduction to Historical Archaeology 3 Y

Crosslisted with: HST 145  
Role of history and archaeology in our understanding of 17th- to 19th-century Europe, Africa, and America. Historical archaeology as a mechanism to critique perceptions of the past. Firsthand record of ethnic groups and cultural settings not recorded in writing.

### ANT 185 Global Encounters: Comparing World Views & Values Cross-Culturally 3 Y

Predominant views of reality and values in the cultures of Asia, Africa, and the Americas. Humanistic study of cultures and nature of cross-cultural understanding.

### ANT 200 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ANT 202 Languages of the World 3 Y Crosslisted with: LIN 202

Introduction to Universal Grammar. Similarities and differences in structures of human languages. Syntax and morphology. Theory development.  
PREREQ: LIN 201.

### ANT 221 Morality and Community 3 O

Crosslisted with: REL 221  
Examines how globally diverse religious groups create distinct moral systems in order to provide their members with the feeling of belonging to unique and meaningful communities.

### ANT 270 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### ANT 273 Indigenous Religions 3 E

Crosslisted with: NAT 244, REL 244  
The connections between material life and religious life in cultures throughout the world. The diverse ways that various cultures inhabit their landscapes.

### ANT 290 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

### ANT 300 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ANT 311 Anthropological Theory 3 S

Anthropological theory focusing on debates about human nature, cultural and racial diversity, and the goals of anthropology as a discipline. Required for majors.

### ANT 318 African Cultures 3 IR

Selected contemporary African cultures. West Africa and the impact of the slave trade. Aspects of colonialism and neocolonialism and their relationship to current social and political development.

### ANT 322 South American Cultures 3 Y Crosslisted with: LAS 318

Archaeology and cultural history. Racial, linguistic, and cultural areas from 1492 to today. Studies of contemporary Indian and Mestizo populations.

### ANT 323 Peoples and Cultures of North America 3 IR

Crosslisted with: NAT 323  
Racial, linguistic, and cultural areas of North America from the Rio Grande to the Arctic. Selected areas and tribes. Data from archaeology, historical records, and contemporary anthropological fieldwork.

### ANT 324 Modern South Asian Cultures 3 SI

Crosslisted with: SAS 324, WGS 324  
Societies of India, Pakistan, Bangladesh, and Sri Lanka. Social organization, economic and political structures, religions and world view, survey of languages, the arts. Transition and modernization, rural and urban problems.

### ANT 325 Anthropology of American Life in Film 3 Y

Analysis of American culture using film and literature. Concept of "national character." Major cultural configurations and themes.

### ANT 326 Africa Through the Novel 3 IR Crosslisted with: WGS 327

Cultural, political, and social life of Africa and Africans through African literature. Each semester deals with a motif (e.g., novels of Achebe).

### ANT 327 Anthropology of Race in Latin America and the Caribbean 3 IR

History of racial ideologies in Latin America and the Caribbean; interactions of racial ideologies with self concepts and life chances; racial ideologies' shaping of expressive culture and religion; antiracism movements and legislation; race and transnational migration.

### ANT 346 Gender Through the Ages 3 IR

The study of gender in archaeology from the late Stone Age to Modern era.

ANT 348 History of Archaeology 3 IR

Double Numbered with: ANT 648

Tracing the discipline's origins with the Renaissance dilettante. Brief survey of scientific and quantitative methods.

ANT 349 Archaeology at the Movies: The Scientific Study of the Past in Popular Culture 3 Y

Introduction to modern archaeology and the scientific study of the past. Utilizing fictional portrayals of archaeological interpretation in popular culture the course examines some of the major research questions of modern anthropology.

ANT 352 Food, Culture and Identity 3 S

Offered only in London. Introduction to a variety of critical approaches; questions about power and representation; role of food in construction of identity.

PREREQ: RENEE CROWN HONORS PROGRAM OR 3.4 MINIMUM GPA.

ANT 355 Spanish Society and Pop Culture 3 S

Crosslisted with: SOC 345

Offered only in Madrid. Explores what is considered important, good, and fashionable in Spain today and how these values relate to historical developments as well as foreign influences.

PREREQ: SPA 201.

ANT 356 Applied Anthropology 3 IR

Describes past and present uses of anthropology in social policy. Examines the discipline's role in addressing global issues such as economic development, environmental degradation, indigenous rights, refugees, and health care. Careers in nonacademic settings.

ANT 357 Health, Healing, and Culture 3 O

Cross-cultural perspective on illness, health, medicine, and the body; medical pluralism; biomedicalization; illness and moral reasoning; local and global political economies of health and healing; globalization and medicine. Applied medical anthropology.

ANT 358 Peace, War and Security 3 E

Anthropology of peace, war and security examining the biological basis for war, archaeology of early warfare, effects of colonial expansion among indigenous peoples and postcolonial society, contemporary peacekeeping, and humanitarian intervention.

ANT 363 Anthropology of Family Life 3 Y

Crosslisted with: WGS 363

Historical and cross-cultural study of forms of family and domestic organization, marriage, status and sex roles, ideals, and customs of family life.

ANT 365 Sexual Attraction in Cross-cultural Perspective 3 E

Sexual attractiveness across cultures. Cultural differences as well as cultural universals.

ANT 367 Gender in a Globalizing World 3 IR

Crosslisted with: GEO 367, WGS 367

Economic and cultural processes of globalization as they affect different groups of men, women, and households; including gender and work, development and environmental change, and redefinitions of masculinity and femininity across the globe.

ANT 372 Issues in Intercultural Conflict and Communications 3 IR

Effects of various cognitive and value orientations on cross-cultural communication, particularly in the Third World. Impact of mass media, proselytization, dissimulation, tourism, and foreign aid on indigenous orientations and on communication.

ANT 373 Magic and Religion 3 S

Crosscultural study of magical and religious behavior, ritual, and belief systems in simple and complex societies. Specialists and their craft: shamans, priests. Curing, possession, witchcraft. Millennial and counterculture movements. Religious ideologies and innovations.

ANT 376 Folklore 3 SI

Folklore as a cultural system expressing the value orientations of nonliterate, illiterate, and minority populations. Various genres of folklore (myth, song, art) and the folklore of several specific societies.

ANT 377 Quilts and Community 3 E

Explores role of quilts and quilting communities. Discussion, films, exploration of quilts and their makers-and communities that result. Class learns quilt making process. No sewing experience required.

ANT 380 International Course 1-6

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

ANT 381 Ancient Rituals and Beliefs in Modern Spain 3 Y

Offered only in Madrid. From Paleolithic and Neolithic settlements of the Iberian Peninsula to modern immigration into Spain, this course examines the complex layering of ancient belief systems in a modern country, using Spain as a laboratory.

ANT 382 Health in the Middle East 3 IR

Crosslisted with: HTW 382, MES 382

Surveys major cultural, biological and environmental features of the Middle East and relates them to aspects of health including infectious disease, chronic disease, reproductive health, population, war, poverty and globalization.

ANT 390 Independent Study 1-6 S

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

ANT 400 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester R

ANT 402 Ethnic History of Britain 3 S

Crosslisted with: HST 422

Offered only in London. Examines the ways in which migration has shaped and reworked British national identity over the past two thousand years through the study of original historical sources, literature, film and music, and explores the contributions that migrants have made to modern British society.

ANT 403 Culture, Confucianism and Chinese Modernity 3 Y

Crosslisted with: HST 443

Offered only in Beijing. Contemporary China from historical and cultural perspectives. Exploration of political and ideological conflicts between China and the West. Patterns of Chinese culture. Impact of Confucianism on Chinese society and its influence outside of China

ANT 404 Family and Gender in Renaissance Italy 3

Crosslisted with: HST 404, WGS 404

Historical and interdisciplinary exploration of life stages, rites of passage, marriage, family, social life, sodomy, prostitution, career options, and alternate life strategies as illustrated by case studies. Offered only in Florence.

ANT 405 Conservation and Management Protected Areas: South Africa-OTS 4 IR

Crosslisted with: GEO 405

Taught in South Africa through the Organization for Tropical Studies program. Analyze management of wildlife and natural resources within ecological, political, social, historical, and economic context of South Africa.

ANT 406 History and Culture of South Africa OTS 4

Taught in South Africa through OTS program. Human history of South Africa. Range of cultural, social aspects of current South African society. Origin and maintenance of cultural diversity of region, archaeological records, early migration patterns.

ANT 407 Environment and Policy in the Tropics OTS 4

Taught in Costa Rica through OTS program. Issues conservation biology and policy: habitat degradation and fragmentation, design of nature reserves, land-use planning, agro ecosystems, environmental economics, and conservation ethics.

ANT 408 The Practice of Eros: A History of Sexuality in Europe (1400-1800) 3

Crosslisted with: HST 408, WGS 408

Authorized and "alternative" sexuality in Europe 15th to 18th centuries (especially Italy, France, and England.) "Licit love" (courtship, marriage, conjugal relations) as opposed to "illicit unions" (adultery, rape, prostitution, bestiality, homosexuality, lesbianism). Offered only in Florence.

ANT 409 A History of Witchcraft 3

Crosslisted with: HST 409, REL 409, WGS 409

History of witchcraft from various perspectives: its intellectual roots, the causes and dynamics of the witch-hunt, and the beliefs and self-perceptions of those who were called "witches". Offered only in Florence.

ANT 414 Cities, Spaces and Power 3 O  
Double Numbered with: ANT 614

Processes of urbanization, migration, adjustments of peasants in cities, ethnic and cultural variation in urban areas. Cultural differences in industrial development. Uses of applied anthropology in urban situations. Sometimes offered abroad.

ANT 415 Culture & Personality 3 IR

The person-in-culture and the function of culture in personality formation. Cross-cultural problems of child rearing, learning and education, life-cycle patterns, cultural conditioning, normality, and deviance. The individual and cultural milieu.

ANT 416 Political Anthropology 3 IR

Double Numbered with: ANT 616

Social power in the global political economy. Co-existence of various emergent and residual social formations such as tribe, peasant, and state. Conflicts over identities in terms of nationality, gender, ethnicity, race and/or class. Additional work required of graduate students.

ANT 417 Economic Anthropology 3 IR

Survey of primitive modes of production: major adaptive strategies (collecting, hunting, horticulture, and pastoralism), division of labor, and ecological influences impinging on these productive techniques.

PREREQ: ANT 111.

ANT 421 Gender & Sexuality in South Asia 3 O

Crosslisted with: SAS 421; Double Numbered with: ANT 621

Seminar examines gender and sexuality in South Asia through ethnographies and films. Topics explored relating to gender and sexuality include: colonialism; nationalism; development; globalization; kinship; the life cycle; caste and class; religion; same-sex/"third sex" identities. Additional work required of graduate students.

ANT 422 Etruscans and Romans: Ancient Art and Society in Italy 3 Y

Crosslisted with: HOA 303

Explores art and society of ancient Italy from ca. 1000 B.C. to A.D. 138, with special emphasis on the early Etruscans through Rome under Hadrian. Requires previous course in art history. Offered only in Florence.  
PREREQ: ANY HOA 100-499.

ANT 424 Negotiation: Theory and Practice 3 Y

Double Numbered with: ANT 624

Negotiation skills for resolving differences effectively and achieving mutually satisfying outcomes. Position based versus interest based negotiation. Advanced techniques of communication such as chunking, reframing, anchoring, metaphor and rapport to obtain negotiation outcomes of excellence. Additional work required of graduate students.

ANT 426 Cultures and Politics of Afghanistan and Pakistan 3 E

Crosslisted with: IRP 426, SAS 426; Double Numbered with: ANT 626

Introduction to Afghanistan and Pakistan, recent histories, cultures, current politics. Covers geography, religious systems, gender roles, economic systems, foreign policy issues, refugees, migration. Additional work required of graduate students.

ANT 427 Brazil: Anthropological Perspectives 3 IR

Double Numbered with: ANT 627

History and culture of Brazil; indigenous populations; Afro-Brazilians; race and ethnic relations; development; kinship; gender; religion; urbanization; politics; nationalism; globalization. Additional work required of graduate students.

ANT 428 Transformation of Eastern Europe 3 IR

Double Numbered with: ANT 629

Change and continuity after the demise of communism as experienced by ordinary citizens. Transformations in agriculture, industry, social, and political institutions; the rise of ethnic nationalism; and ethnic conflict. Additional work required of graduate students.

ANT 429 Cultures of the Iberian Peninsula 3 Y

Taught in Spanish. A general cultural introduction to the peoples who populated Spain and Portugal. Emphasis on those living in the Iberian peninsula before Roman and Carthaginian settlement and their influence on future generations. Field study tours to archeological and historic sites. Offered only in Madrid.

ANT 431 Human Variation 3 IR

Genetics as applied by anthropologists to humans. Description of the genetic systems most commonly studied. Descriptions of polygenic, polymorphic variations and the methods by which they are gathered.

ANT 433 Human Osteology 3 E

Double Numbered with: ANT 633

This course is an intensive study of the human skeletal system. The focus is identification of fragmentary skeletal elements and their osseous structure, skills relevant to archaeological and forensic contexts. Laboratory practicum forms the basis.

ANT 434 Anthropology of Death 3 E

Double Numbered with: ANT 634

Death in anthropological perspective. Survey of the many ways death has entered into the work of archaeologists, biological anthropologists, ethnographers and social theorists.

ANT 436 Bioarchaeology 3 O

Double Numbered with: ANT 636

Surveys the analysis of human skeletal remains in archaeological and medico-legal settings. Methods and techniques of analysis and interpretation will be emphasized. Case studies will be used to illustrate application to variable social and historical contexts. Additional work required of graduate students.

ANT 442 Methods in Archaeology 3 O

Double Numbered with: ANT 642

Formulation and conduct of archaeological research with a focus on field and laboratory methods used to obtain and analyze data. Survey techniques, excavation strategies, archaeological classification, and data base management. Additional work required of graduate students.

PREREQ: ANT 141 OR 145.

ANT 443 Field Methods in Archaeology 6

SS

Supervised training in the excavation of archaeological sites, including analysis, cataloging and accessioning of artifacts. R

ANT 444 Laboratory Analysis in

Archaeology 3 E

Double Numbered with: ANT 644

Introduction to archaeo-logical materials analysis, artifact-classification systems, processing of data, materials analyses (ceramic, lithic, etc.). Conservation and curation of collections. Extra work required of graduate students.

PREREQ: ANT 141 OR 145.

ANT 445 Public Policy and Archaeology 3

IR

Crosslisted with: NAT 445; Double Numbered with: ANT 645

Proactive critique of public policy and implementation efforts to preserve and protect archaeological and historical sites and resources. Additional work required of graduate students.

ANT 446 Caribbean Archaeology 3 IR

Double Numbered with: ANT 646

Caribbean archaeology from the region's early prehistory through the historic period. Cultural diversity, indigenous societies, Hispanic and colonial impacts, and the African Diaspora.

ANT 447 Archaeology of North America 3

IR

Crosslisted with: NAT 447; Double Numbered with: ANT 647

Introduction to the regional prehistory of North America north of Mexico, from the late Pleistocene until European contact. Adaptation of prehistoric human populations to their ecosystems. Additional work required of graduate students.

PREREQ: ANT 141 OR 145.

ANT 449 World Heritage Sites 3 E

Double Numbered with: ANT 649

A seminar exploring global perspectives on UNESCO World Heritage Sites. Review of laws and policies aimed at protecting cultural and natural sites that have been defined as universally significant. Includes evaluation and critique of policies and practices. Additional work required of graduate students.

ANT 450 Undergrad Research Prog 1-6 S

R

ANT 452 Anthropology and Public Policy 3 IR

Double Numbered with: ANT 652

Cultural aspects of the development and implementation of public policy. Emphasizing decision making methodologies and ethnographic studies of the consequences of implemented policies. Additional work required of graduate students.

ANT 453 Poverty/Policy&Humn Svce 3 IR

Double Numbered with: ANT 653

National programs and local interventions that address poverty related social conditions in Syracuse and Onondaga county. Field study of current policies and practices in government and in health, education, and human services agencies. Additional work required of graduate students.

ANT 455 Culture and AIDS 3 IR

Crosslisted with: WGS 455; Double Numbered with: ANT 655

Relationship between AIDS and cultures in which it spreads. Cultural practices and sexuality and social effects of widespread AIDS, including healthcare in Asia, Africa, Latin America, and USA. Additional work required of graduate students.

ANT 456 Representations of Indigenous Peoples in Popular Culture 3 IR

Crosslisted with: NAT 456; Double Numbered with: ANT 656

Contested images used by colonizers and other non-indigenous people to represent Native Americans and other indigenous peoples. How indigenous people represent themselves in a variety of media. Additional work required of graduate students.

ANT 458 Anthropology of Social Change 3 Y

Introduces the basic concepts used by anthropologists to study change. Cultural heterogeneity of people of the Iberian peninsula, used as a means to understand social and cultural change in contemporary Spain and Portugal. Some themes examined include culture contact and acculturation, planned and nondirected change, and role of individual. Offered only in Madrid.

ANT 459 Contemporary Native North American Issues 3 IR

Crosslisted with: NAT 459; Double Numbered with: ANT 659

Contemporary issues including federal Indian policy, population controls, fishing rights, religious freedom, land disputes, gaming, repatriation, environmental colonialism, and Native American artistic response. Additional work required of graduate students.

ANT 461 Museums and Native Americans 3 IR

Crosslisted with: NAT 461; Double Numbered with: ANT 661

The contested relationships among Native North Americans and museums from earliest contact until the present. Topics include: "salvage" ethnography, collecting practices, exhibition, and recent shifts in power. Additional work required of graduate students.

ANT 462 Culture and Reproductive Health and Medicine 3 IR

Crosslisted with: HTW 462, WGS 462; Double Numbered with: ANT 662

Cultural anthropological approaches to cross-cultural variations in reproductive practices (pregnancy, childbirth, infertility, etc.) Impact of globalization, biomedicalization, international development on reproduction and reproductive health. Medical anthropology and gender studies.

ANT 463 Global Health 3 IR

Crosslisted with: HTW 463; Double Numbered with: ANT 663

Global health in anthropological perspective. Examines how culture affects people's experience and response to morbidity and mortality. Considers topics like gender and health, reproductive health, infectious disease, health and inequality and health and war.

ANT 465 Critical Issues in Medical Anthropology 3 O

Double Numbered with: ANT 665

Illness and healing in ecological and cross-cultural perspectives; strengths and weaknesses of Western and non-Western methods of healing; problems of introducing Western medicine to other cultures. Additional work required of graduate students.

ANT 466 Culture and Sexual Behavior 3 IR

Double Numbered with: ANT 666

Cross-cultural patterns of dating and courtship, sexuality, marriage, fertility, and divorce from biosocial and medical perspectives. Additional work required of graduate students.

ANT 467 Culture and Mental Disorders 3 E

Double Numbered with: ANT 667

Mental disorders viewed as illnesses or social constructions. Cross-cultural variation and universals. Western and non-Western methods of treatment. Additional work required of graduate students.

ANT 468 Middle East in Anthropological Perspective 3 IR

Crosslisted with: IRP 468, MES 468; Double Numbered with: ANT 668

Anthropology of the social, cultural, geographical, and political realities of the Middle East. Additional work required of graduate students.

ANT 469 Medical Anthropology in Ecological Perspective 3 O

Double Numbered with: ANT 669

Interaction of biological and cultural factors in disease causation, diagnosis, and treatment in Western and non-Western societies. Introducing Western medicine to non-Western cultures. Additional work required of graduate students.

ANT 470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

ANT 471 Religion and Society in Brazil 3-4 IR

Crosslisted with: REL 471

Role of religion in society; religions of Brazil, including Catholicism, liberation theology, afro-religions. Spring break field stay in Rio de Janeiro; methods of study; preparation of research proposal.

ANT 472 Language, Culture, and Society 3 Y

Crosslisted with: LIN 472, WGS 472; Double Numbered with: ANT 672

Cross-cultural survey of the role of language in culture and society, including cognition and language usage along the dimensions of class, gender, race, ethnicity, and social status.

ANT 473 Peace and Conflict in the Balkans: Anthropological Perspectives 3 IR

Double Numbered with: ANT 673

Introduction to Balkan histories, cultures, and societies. Topics include ethnic nationalism, the wars of Yugoslav dissolution, effects of international humanitarian interventions on everyday life, and politics of reconciliation and reconstruction. Additional work required of graduate students.

ANT 474 Culture and Folklore 3 IR

Crosslisted with: WGS 474; Double Numbered with: ANT 674

Ways in which folklore (oral and material traditions, including personal narratives), reflects key cultural ideas such as gender, ethnicity, and history. Analytical methods for examining folk traditions. Additional work required of graduate students.

ANT 475 Culture and Disputing 3 IR  
Double Numbered with: ANT 675

Explores modalities of disputing, dispute resolution, and conflict management in cross-cultural perspective. Decision making in meetings and organizations, negotiation, mediation, intercultural negotiation, and third party interventions. Ethnographic materials are drawn from many cultures. Additional work required of graduate students.

ANT 476 Women, War and Peace 3 E  
Double Numbered with: ANT 676

Examines global politics, war and violence through a gender-sensitive lens. The topics include human trafficking, prostitution, militarization, poverty, nationalism, ethnic conflict, war-rapes, torture, genocide, reconciliation and recovery. Additional work required of graduate students.

ANT 477 Culture and Conflict 3 IR  
Double Numbered with: ANT 677

An overview of conflict in cross-cultural perspective. Covers a variety of approaches to using cultural analysis in the study of conflict and reviews case studies of specific conflicts. Additional work required of graduate students.

ANT 479 Anthropology of Global Transformations 3 IR

Double Numbered with: ANT 679

Impact of global processes, including industrialization, capitalist expansion, transnational migration, environmental change, and international tourism on the daily lives of men and women in Third World contexts. Additional work required of graduate students.

ANT 481 Ethnographic Techniques 3 O  
Double Numbered with: ANT 681

Research methods and techniques in cultural anthropology. Participant observation, interviewing, establishing rapport, research design, recording and analyzing field data, etc.

ANT 482 Life Histories/Narratives 3 IR  
Double Numbered with: ANT 682  
Evaluation of personal narratives (fieldwork memoirs, reflexive writings), oral histories and testimonials of respondents, a means of personalizing ethnographic discourse, giving more direct voice to respondents, and increasing multivocality. Issues of reflexivity, subjectivity, authority. Additional work required of graduate students.

ANT 483 Social Movement Theory 3 IR  
Double Numbered with: ANT 683  
Theoretical approaches to analysis of social movements including Marxist and other Utopian traditions of social analysis, rational choice and resource mobilization models, new social movement theory, and Gramscian analysis of power and resistance. Additional work required of graduate students.

ANT 484 Social Movement Research Methods 3 IR  
Double Numbered with: ANT 684  
A range of research methodologies relevant to the study of social movements. Stimulates critical thinking about these methodologies' ethical implications. Students develop proposals for projects carried out the following semester.

ANT 490 Independent Study 1-6 S  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

ANT 494 Underground Railroad 3 SI  
Crosslisted with: AAS 434, HST 434; Double Numbered with: ANT 694  
Myth and history of the Underground in the context of African American freedom efforts. Emphasis on events, personalities, and sites in upstate New York. Student field research and exploration of archival and Internet resources. Additional work required of graduate students.

ANT 495 Research for Distinction in Anthropology 3 S  
Research and background study in preparation to write a capstone 'Distinction' paper. The project will involve significant library and/or field work under faculty supervision. GPA requirement and faculty approvals needed.

ANT 496 Distinction in Anthropology 3 S  
Distinction paper: Advanced research under the supervision of a faculty supervisor. The capstone "Distinction in Anthropology" paper involves significant library and/or field work. GPA requirement and faculty approvals needed.

ANT 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ANT 500 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ANT 523 Globalization and its Discontents in Latin America 3 Y  
Crosslisted with: LAS 523  
Effects of and reactions to globalization and neo-liberal policies in rural communities, including industrialization, rural-urban and international migration and ethnic movements.

ANT 553 Women and Social Change 3 E  
Crosslisted with: WGS 553  
Function of changes in women's roles in sociocultural urbanization, revolution, and modernization. Women in Third World countries compared to women in industrialized countries.

ANT 571 Topics in Sociolinguistics 3 SI  
Crosslisted with: LIN 571, SOC 571  
Functions of language in society. Geographical, socioeconomic, and male-female differentiation. Functions of various types of speech events. Requirements include a research project. R1, 6 credits maximum

ANT 574 Anthropology and Physical Design 3 E  
Interrelationship of social and spatial organization in traditional and modern societies. Nonverbal communication: use of space, territoriality, and impact of physical design on human behavior.

## Economics

ECN 101 Introductory Microeconomics 3 IR  
Introduction to microeconomics. Consumer demand, theory of production, markets and prices, social welfare, and related topics. Credit is given for either ECN 101, 102 or ECN 203.

ECN 102 Introductory Macroeconomics 3 IR  
Introduction to concepts and methods of economic analysis. Emphasis on such macroeconomic topics as gross domestic product, unemployment, money, and theory of national income. Credit is given for either ECN 101,102 or ECN 203.

ECN 203 Economic Ideas and Issues 3 S  
Foundation of modern Western economic thought. The model economists have built on this foundation as applied to current issues facing individuals and society. Credit is given for either ECN 203 or ECN 101, 102 or ECN 109.

ECN 258 Poverty and Discrimination in America 3 IR  
Crosslisted with: WGS 258  
Nature and causes of inequality, poverty, and discrimination in rural and urban America. Income maintenance, employment, training, education, and other antipoverty programs; antidiscrimination and equal opportunity policies. Students may not receive credit for both ECN/WGS 258 and ECN/WGS 358.

ECN 270 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

ECN 290 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ECN 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
PREREQ: (ECN 101 AND 102) OR 203. R

ECN 301 Intermediate Microeconomics 3 S  
Concepts and tools for the analysis of the behavior of consumers and firms, consumption decisions, market structures, and general equilibrium. Pricing, production, purchasing, and employment policies. Both ECN 301 and 311 cannot be counted toward the major/minor. Credit cannot be given for ECN 301 after completing ECN 311. Quantitative skills requirements of liberal arts core recommended.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 302 Intermediate Macroeconomics 3 S  
National product and income concepts, measurements, and relationships; interrelationships of the major segments of the national economy; forces affecting the general level of economic activity. Quantitative skills requirements of liberal arts core recommended.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 304 The Economics of Social Issues 3 Y  
Application of tools developed in introductory economics to current issues facing society including, but not limited to: crime, education, farm policy, alcohol/tobacco/drugs, the environment, health care, poverty/inequality, immigration and discrimination.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 305 Economics of Personal Finance 3 Y  
This introductory course applies fundamental economic and financial concepts qualitatively to cover aspects of consumer personal finance, including record keeping, banking, saving, borrowing, using credit, investing, insurance, doing taxes, retirement, and end-of-life considerations. Students may not receive credit for both ECN 305 and FIN 378.  
PREREQ: ECN 203.

ECN 310 Special Topics In Economics 3 IR  
Various special topics of economic issues offered as available.  
PREREQ: (ECN 101 AND 102) OR 203. R

ECN 311 Intermediate Mathematical Microeconomics 3 Y  
Covers the same topics as covered in ECN 301, but the presentation is more mathematical than ECN 301. Both ECN 301 and 311 cannot be counted towards the major/minor. Credit cannot be given for ECN 301 after completing ECN 311.  
PREREQ: ((ECN 101 AND 102)) OR ECN 203) AND (MAT 284 OR 285 OR 295 OR 296).

ECN 312 Behavioral Economics 3 Y  
Offered only in London. Examines and revises assumptions underlying standard economic theories and models to develop a fuller understanding of human behavior, increase their explanatory power, and enable more accurate predictions from such theories  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 313 The Economics of Happiness 3 Y  
Offered only in Strasbourg. Economic matters and their evolution since WWII, examining critical issues such as quality of life, sustainable development, and measures of economic performance; how factors such as income, unemployment, inflation and inequality affect societal and personal happiness.  
PREREQ: (ECN 101 AND 102) OR 109 OR 203.

ECN 325 Economics and Gender 3 IR  
Crosslisted with: WGS 325  
Economic issues examined within a gender sensitive context. Includes the economics of family, the economics of marriage, and labor market discrimination and segregation.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 355 Economics of Health and Medical Care 3 IR  
Application of economics concepts to the study of health care, especially the U.S. system. Topics include the nature of the commodity health care; health production functions; markets; financing; behavior of providers; public policy; reform proposals.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 358 Economics of US Poverty and Discrimination 3 IR  
Crosslisted with: WGS 358  
Economic analysis of inequality, poverty, and discrimination, as applied to USA. Income maintenance, employment, training, education, and other antipoverty programs; antidiscrimination and equal opportunity policies. Students may not receive credit for both ECN/WGS 258 and ECN/WGS 358.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 361 Economics of European Integration 3  
Origins and history of European Union integration, integration of trade, financial and monetary policies, the Euro, and EU external trade relations. Offered regularly through SU Abroad.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 362 Globalization Development and Environment 3 S  
Crosslisted with: PSC 462  
Offered only in London. Differing perspectives on changing global economy and nature of modern state. Key ideas regarding development through experiences of developing countries in Asia and Africa.

ECN 363 Economic Development of China 3 S  
Offered only in Hong Kong. Examines the economic development of China since 1949, including impact of such policies as the Great Leap Forward, the Cultural Revolution, Deng's Open Door commitment, and current strategies.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 364 International Economic Relations 3 S  
Offered only in Hong Kong. Economic links binding countries and similar political entities. Topics include development of global trade regime, impacts of globalization, dynamics of financial crisis, rise of transnational corporations.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 365 The World Economy 3 S  
Non-technical introduction to analysis of international economic issues. Protectionism, the multinational firm, the debt crisis, international macroeconomic policy coordination, and European integration. May not be used to satisfy the economics major upper-division elective requirement.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 366 Economic Policies of the European Union 3 S  
Crosslisted with: INB 366  
Offered only in Strasbourg. European economy, with central focus on economic principles underlying decisions to create and extend scope of European Community and on economic policies EU has followed since creation.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 373 Industrial Organization & Policy 3 IR  
Analysis of structure, conduct, and performance of industry. Experience with antitrust laws and trade regulations. Case studies of specific industries.  
PREREQ: (ECN 101 AND 102) OR 203.

ECN 390 Independent Study 1-6  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department.  
PREREQ: (ECN 101 AND 102) OR 203. R

ECN 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ECN 410 Topics in Economic Applications 3 IR  
Various topics in economic policy and applications.  
PREREQ: (ECN 301 OR 311) AND 302. R

ECN 421 Game Theory and Economic Strategy 3 Y  
A choice by one economic agent typically affects other economic agents. This course teaches concepts useful in predicting how agents behave in such strategic situations. The focus is on applications in economics and other areas.  
PREREQ: (ECN 301 OR 311) AND (MAT 284 OR 285 OR 295 OR 296).

ECN 422 Introduction to Statistics and Econometrics 3 Y  
Basic theory and application of probability, statistical inference, and regression analysis for economics majors. Designed to expose the student to the statistical techniques economists use in estimating, testing, and forecasting economic relationships.  
PREREQ: (ECN 301 OR 311) AND ECN 302.

ECN 431 Public Economics 3 Y  
Theory of the public sector. Government expenditures, revenue, and debt. Intergovernmental fiscal relations. Government contributions to stabilization and growth. Interaction of public and private sectors.  
PREREQ: ECN 301 OR 311.

ECN 435 State and Local Public Finance 3 IR  
Economic analysis of state and local government structures. Description and equity-efficiency-yield implications of state and local government tax systems. Determinants and consequences of state and local government expenditures. Fiscal federalism.  
PREREQ: ECN 301 OR 311.

ECN 437 Environmental and Resource Economics 3 Y  
Optimal use of exhaustible and renewable resources and pollution. Examines energy sources, environmental amenities and water. Pollution control policies examined include emissions taxes, tradable permits, direct regulation, subsidies, and negotiation. Valuing environmental quality and other non-marketed goods; risk assessment, hedonic pricing and contingent valuation.  
PREREQ: ECN 301 OR 311.

ECN 441 Urban Economics 3 Y  
Theoretical and empirical analyses of growth, structure, and resource allocation in urban regions. Selected urban problems: housing and housing finance; poverty; transportational neighborhood degradation; and financing local public services.  
PREREQ: ECN 301 OR 311.

ECN 443 Real Estate Economics and Finance 3 Y  
Analysis of real estate markets & real estate finance. Consideration of land and mortgage markets; public policies; house price movements. Analysis of mortgage instruments; payment streams, mortgage contracts and risk between lenders and borrowers.  
PREREQ: ECN 301 OR 311.

ECN 451 Labor Economics 3 Y  
Contemporary theories and issues of public policy concerning labor supply and demand, wage determination, disincentive effects of public transfer payments (e.g. welfare), unemployment, human capital, and unions.  
PREREQ: ECN 301 OR 311.

ECN 465 International Trade Theory and Policy 3 Y  
Economic causes and consequences of international trade. Models of trade, gains from trade, tariffs and other controls on trade, and international institutions guiding the trading systems.  
PREREQ: ECN 301 OR 311.

ECN 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

ECN 481 Introduction Money & Banking 3 Y  
Financial instruments and structure: commercial banking organization, operation and control of the banking system. Federal Reserve System. Monetary policy and economic stability.  
PREREQ: ECN 302.

ECN 487 Economic Growth 3 Y  
The study of economic growth: models, their applications, and empirical evidence across different countries. Emphasis placed on understanding recent advances in the area: particularly, those pertaining to the nexus between growth and labor market.  
PREREQ: ECN 301 OR 311.

ECN 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

ECN 495 Distinction Thesis Seminar in Economics I 3 Y  
First semester in a year-long course for economics undergraduate thesis students who are oriented to professional economics research and guided as they define their thesis projects. Senior economic students only. Permission from Instructor.

ECN 496 Distinction Thesis Seminar in Economics II 3 Y  
Second semester in a year-long course for economics undergraduate thesis students who will present ongoing research, constructively engage the work of other thesis writers, and work in cooperation with a faculty mentor to complete research. Senior economic students only. Permission from Instructor.

ECN 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ECN 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ECN 505 Mathematical Economics 3 Y  
Introduction to use of basic mathematical techniques in economic analysis.  
PREREQ: (ECN 301 OR 311) AND (MAT 284 OR 285 OR 286 OR 295 OR 296).

ECN 510 Special Topics in Economics 3 IR  
Various special topics of economics issues offered as available.

PREREQ: ECN 301 OR 311. R5, 18 credits maximum

ECN 521 Economic Statistics 3 S

Statistical methods applied to economics. Conventional descriptive statistics, conceptual and measurement problems peculiar to economics. Analytical statistics, including time-series analysis, elementary theory of probability and statistical inference, correlation and regression analysis. Nonparametric methods. This course is not suitable for students who have taken six credits of statistics to fulfill their quantitative skills requirement. Quantitative skill requirements of liberal arts core is recommended.

PREREQ: (ECN 101 AND 102) OR 203.

ECN 522 Econometric Methods 3 Y

Statistical procedures. Problems of estimating parameters in regression models of economic behavior.

PREREQ: ECN 521 AND (ECN 301 OR 311).

ECN 525 Economics and Gender 3 Y

Crosslisted with: WGS 525

Offered only in Strasbourg. European economy, with central focus on economic principles underlying decisions to create and extend scope of European Community and on economic policies EU has followed since creation.

ECN 566 International Macroeconomics and Finance 3 Y

Monetary, fiscal, and regulatory consequences of mushrooming international financial markets including equities, bonds and other securities, commodity and options contracts, and bank deposits and loans.

PREREQ: ECN 302.

ECN 580 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Geography

GEO 103 Environment and Society 3 S

Relationship between society and the environment. Natural resource use, climate change politics, food and agriculture, energy, water, and sustainability.

GEO 105 World Geography 3 IR

World geography, people's relation to the land. Major concepts of geography for nonspecialists.

GEO 155 The Natural Environment 3 S

Patterns of the physical phenomena at and near the surface of the earth. Surface configuration, climate, vegetation, and soil and their areal interrelationships.

GEO 171 Human Geographies 3 S

An integrative overview to human geography. Topics include human-environmental relations, demographic change, cultural landscape; urban and agricultural land use and economic restructuring.

GEO 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. \* R

GEO 203 Society and the Politics of Nature 3 IR

Biophysical and social contexts of environmental problems and decision making. U.S. and international issues considered, linking local, regional, and global scales of analysis. Case examples include water management, energy policy, global warming, sustainable development.

GEO 215 Global Environmental Change 3 Y

Focusing on physical processes and patterns of environmental change, changes occurring as a result of human activities, and the social consequences of environmental change.

GEO 219 American Diversity and Unity (Honors) 3 Y

Ethnic and racial interactions that influenced American culture's present form, both visible (i.e., landscape) and invisible. Contemporary sociocultural changes in the frontier/West/Alaska, southern California, and the South. For honors students.

GEO 270 Experience Credit 1-6 IR

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

GEO 272 World Cultures 3 Y

The globalization of culture and the persistence of local cultures around the world. Case studies from different regions of the world examine geographical processes that shape ways of life.

GEO 273 World Political Economy 3 Y

Survey of emergence of an integrated global political economy from the sixteenth century to the present. Creation of "developed" and "under-developed" regions. Case studies of the impact of global transformations on regions and institutions.

GEO 300 Selected Topics 1-3 Y

Selected Topics R

GEO 311 The New North Americas 3 O

Critical study of social, political, economic, and cultural processes across contemporary North America. Focus on geographies of globalization, transnationalism, economic restructuring, and new social movements, with particular attention to race/ethnicity, gender, power, and resistance.

GEO 313 The United States 3 E

Cultural, social, and regional approaches to understanding the geography of the United States. American national identity and cultural landscape, regional consumer behavior patterns, and current regional issues.

GEO 314 Hazardous Geographic Environments 3 Y

Mapping and public policy for natural and technological hazards. Risk perception, geographic modeling, and vulnerability assessment. Mitigation measures, risk mapping, land-use restrictions, and emergency planning.

GEO 316 River Environments 3 Y

Characteristics of river environments, including hydroclimatology, floods, landforms, vegetation, human impacts, and resource management issues.

GEO 317 Geography of Mountain Environments 3 O

Physical and human geography of mountain regions. Focus on tectonic, geomorphological, biogeographical, and climatic processes; resource use problems and patterns, conservation, and development; environmental hazards.

GEO 318 Tropical Environments 3 E

Tropical ecosystems and their human dimensions, with an emphasis on the Neotropics. Distribution, structure, and function of natural systems; human-environment interactions; management and significance.

GEO 319 Cold Environments 3 E  
An exploration of environmental processes, interactions, and environmental problems in the cold regions of the world, emphasizing the Arctic.  
PREREQ: GEO 155 AND (GEO 103 OR 171 OR 272).

GEO 321 Latin American Development: Spatial Aspects 3 IR  
Crosslisted with: LAS 321  
Spatial dimensions of development process in Latin America since the 1930s in a variety of contexts and at several scales. Variety of spatial models that may be applied.

GEO 325 Colonialism in Latin America 3 S  
Processes of geographical change in Latin America from the sixteenth to the early twentieth century. Reconstruction of geographies of Latin America at critical periods.

GEO 326 The Geography of Climate and Weather 3 Y  
Atmospheric dynamics emphasizing spatial distributions of energy and moisture at several scales. Weather phenomena, regional climates, and human-induced perturbations and modifications of climate systems. Land-use change, climate change and urban climatologies.  
PREREQ: GEO 155 OR EAR 101.

GEO 327 Geography of Coastal Environments 3 O  
Natural environmental processes in the coastal zone. Emphasis on coastal transformation due to climate variability and change, estuarine pollution and habitat destruction, human modification; and subsequent associated societal hazards and implications.  
PREREQ: GEO 155.

GEO 331 The European Union 3 Y  
Geo-political foundations, economic and political developments, European community institutions, integration and external relations.

GEO 340 Geography of Oil 3 Y  
The topic of oil used to explore the concerns of human geography with society, space, and the natural environment. By learning about oil we will cover themes and concepts important to environmental, political, cultural, economic and urban geography.

GEO 347 Art and Environment in American Culture Since 1800 3  
Crosslisted with: HOA 482  
Visual arts and environmental concern in the U.S. from the early national period to the present. Emphasizing diversity of artists and forms, the changing cultural constructions of nature, and tracing an ecological tradition in art.

GEO 353 Geographies of Environmental Justice 3 E  
The relationship between environmental quality and social justice. Spatial aspects of unequal distribution of environmental risks and benefits. Case studies drawn from urban rural examples in both the United States and the Third World.

GEO 354 American Environmental History and Geography 3 Y  
Crosslisted with: HST 384  
Relationship between Americans and the natural environment from the colonial period to the present. Ecological imperialism, technology and nature, resource-management conflicts, urban environments, development of conservation and environmentalism.

GEO 356 Environmental Ideas and Policy 3 Y  
Fundamental ideas relating to underlying evolution and implementation of environmental policy in the USA.

GEO 358 Animals and Society 3 E  
Relations between people and animals employing approaches from the social sciences and humanities. Topics include history and geography of animals in America, managing wildlife, zoos, animals in popular culture, pets and companion animals.

GEO 361 Global Economic Geography 3 IR  
World patterns of production and consumption in the context of regional resources and population problems. Impact of technological change on geographic organization of economic systems. Concepts in economic geography and their policy implications.

GEO 362 The European City 3 Y  
Historical development of Europe through its cities. Growth and form of European cities; how they are governed and planned.

GEO 363 Cities of North America 3 IR  
Urban images and sense of place. Urbanization and urban growth. Urban functions and form. Social patterns, change, and transformations of urban landscapes. Housing, neighborhood, and land-use change.

GEO 367 Gender in a Globalizing World 3 IR  
Crosslisted with: ANT 367, WGS 367  
Economic and cultural processes of globalization as they affect different groups of men, women, and households; including gender and work, development and environmental change, and redefinitions of masculinity and femininity across the globe.

GEO 372 Political Geography 3 Y  
Geographic analysis of the political process at a variety of spatial scales - international, intra-national, and urban. Origins of territorial organization and conflicts over access to and use of space.

GEO 374 Environment and Development in the Global South 3 Y  
Critical analyses of international development in theory and practice, especially as it relates to environmental change in complex ways in the Global South. Topics include modernization, participation, community, gender, sustainability, agriculture, trade, water, climate change.

GEO 381 Cartographic Design 4 Y  
Basic elements of cartographic design, including symbolization, figure-ground relationships, color theory, and typography. Effect of scale and projection on design process. Computer-assisted methods of cartographic design, including graphic representations for geographic information systems.

GEO 383 Geographic Information Systems 3-4 S  
Double Numbered with: GEO 683  
Basic concepts in spatial data handling. Algorithms and data structures for Geographic Information Systems (GIS). Demonstration of power, potential, and limitations of GIS. Graduate students register for three credits. Undergraduate students register for four credits with required laboratory work.

GEO 386 Quantitative Geographic Analysis 3 E

Double Numbered with: GEO 686

Descriptive and inferential statistics for use geo-referenced data, spatial autocorrelation, and geostatistics. Geographic examples. Weekly labs. Individualized advanced work and term project.  
PREREQ: MAT 121 OR 183 OR 221 OR STT 101.

GEO 388 Geographic Information and Society 3 E

Double Numbered with: GEO 688

Effects of geographic information technologies on governments, communities, and individuals. Mapping as an information industry, a political process, a surveillance technology, and a communication medium. Copyright, access, hazard management, national defense, public participation, and privacy.

GEO 396 European Integration 3 Y

Crosslisted with: PSC 396

Focuses on the origins, nature, and likely future course of the European Union. More generally, examines five long-range challenges facing contemporary Europe: Demographic decline; globalization; Civic Integration; Great Power Rivalry; and Sustainable Development.

GEO 400 Selected Topics 1-3 Y

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

GEO 405 Conservation and Management

Protected Areas: South Africa-O TS 4

Crosslisted with: ANT 405

Taught in South Africa through the Organization for Tropical Studies program. Analyze management of wildlife and natural resources within ecological, political, social, historical, and economic context of South Africa.

GEO 415 Food: A Critical Geography 3 E

Critical examination of the social, political and environmental aspects of contemporary agri-food systems. Topics include industrial and alternative agriculture, fisheries, food policy, hunger, health issues and food justice. Involves field-based and mapping assignments.

GEO 425 South Africa 3 O

The geography, history, and societal complexity of South Africa. Its current place in the world, its parallels and lessons for the USA.

GEO 428 Auld Reekie: Scotland and the Road to London 3 IR

Field studies seminar examining popular and elite cultural forms that organize life in Britain. Emphasizes interaction with local culture environments to explore contemporary identities and how and why identity and attitude are formed. Offered in London only.

GEO 430 Energy, History and Society 3 IR

Explores the role of energy resources in shaping historical, social, and political change.

GEO 440 Race and Space 3 E

Critical geographic study of race and racism as formative aspects of sociocultural, economic and political processes. Focus on race/racism's operations across scales, with particular attention to gender, class, culture, colonialism, citizenship, power, and resistance.

GEO 443 Southeast Asia in the World

Political Economy 3 Y

Crosslisted with: INB 443, IRP 443, PSC 443

Offered only in Hong Kong. Explores the historical and contemporary forces that have shaped the South East Asian region and its unique cultural, social, political and economic characteristics.

GEO 450 Geographies of Migration and Mobility 3 IR

This course examines human migration and its sociocultural and political impacts on sending and receiving communities. Focused on the mobility of people, ideas, and commodities, it investigates migration's role in producing and transforming human geographies.

GEO 455 Biogeography 3 E

Double Numbered with: GEO 655

Exploration of the environmental factors that influence the distribution of organisms. Emphasis is on plant distributions and dynamics, and consideration includes both natural and human factors. Additional work required of graduate students.

GEO 463 Geography of Homelessness 3 E

Examines the roots and consequences of homelessness in contemporary cities. Focus on United States and globalization of American-style homelessness. Explores role of space and spatial relationships in shaping homeless people's lives and homeless policy.

GEO 470 Experience Credit 1-6 IR

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

GEO 482 Environmental Remote Sensing 3 Y

Principles and environmental applications of remote sensing. Uses and limitations of remotely-sensed data; typical image processing operations and analyses; laboratory work and individual term project using remotely-sensed imagery.

GEO 485 Community Geography 3 E

Double Numbered with: GEO 685

Introduces community-based and participatory research methods and participatory GIS, including origins, ethics and challenges. Examines how and why grassroots organizations use GIS and geospatial technologies. Students conduct local research projects. Additional work required of graduate students.

GEO 490 Independent Study 1-6 IR

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

GEO 491 Senior Seminar in Geography 3 Y

Research and presentations in a selected field of geography. Topic announced each time offered. Primarily for advanced geography majors and minors.

PREREQ: GEO 103 AND 155 AND 171. R

GEO 492 Senior Thesis Seminar 3 Y

Seminar for senior geography majors graduating with distinction. Individualized and small-group mentoring and directed research.

GEO 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

GEO 500 Topics in Geography 1-3 Y

In-depth studies of selected topics. R

GEO 510 Research on North America 1-3 IR

Reading and special work R

GEO 520 Research on Latin America 1-3 IR

Crosslisted with: LAS 520  
Reading and special work R

GEO 530 Research on Africa 1-3 IR

Reading and special work. R

GEO 537 Environmental Policy in a Development Context 3 S  
Crosslisted with: LAS 537  
Offered only in Santiago. Examines historical/intellectual/ material processes that transformed nature into natural resources to be exploited; ways global political process has guided global responses to environmental problems; Chilean environmental policy over the last 20 years.

GEO 538 Research on Europe 1-3 IR  
Reading and special work. R

GEO 540 Research on Southern and Eastern Asia 1-3 IR  
Reading and special work. R

GEO 550 Research on Physical Geography 1-3 IR  
Reading and special work. R

GEO 560 Research: Economic Geography 1-3 IR  
Reading and special work. R

GEO 561 Global Economic Geography 3 IR  
Globalization, world economic processes, international development, and policy issues; emphasizing geographical perspectives.

GEO 563 The Urban Condition 3 IR  
Contemporary cities. Economic growth and decline. Social polarization. Construction of the built environment. Case studies from around the world.

GEO 564 Urban Historical Geography 3 O  
Cities in western civilization through classical, medieval, mercantile, and industrial eras to 1945. Historical geographic meanings of urbanism; social construction of the built environment; and relationships between power, social justice, and urban spatial form.

GEO 570 Research on Cultural Geography 1-3 IR  
Reading and special work. R

GEO 572 Landscape Interpretation in Cultural Geography 3 SI  
Contemporary theories and methods. Traditional, historical-materialist, postmodernism, and post-structuralist approaches to landscape. Additional work required of graduate students.

GEO 573 The Geography of Capital 3 O  
In-depth reading of Marx's Capital to understand: (a) the relationship between political economy and the geographical landscape; (b) the formative role of "Capital" in contemporary geographic theory.

GEO 576 Gender, Place, and Space 3 IR  
Crosslisted with: WGS 576  
Contemporary debates in feminist geography on the gendered construction of space and the spatial construction of gender.

GEO 580 Research on Cartographic Techniques 1-12 IR  
Reading and special work. R

GEO 583 Environmental Geographical Information Science 3 Y  
Data types, collection techniques, and processing strategies in natural resource survey. Monitoring and environmental sciences. Basic concepts of GIS data structures and algorithms. Data quality issues. User requirements, management aspects, and implementation experience.  
PREREQ: GEO 383 OR 683.

GEO 595 Geography and the Internet 3 Y  
An introduction to the structure and functions of the Internet and its impact on spatial relations from the global to the local. A detailed examination of the World Wide Web and practical training in web page design.

## History

HST 101 American History to 1865 3 Y  
Founding and development of institutions. The Revolution and the new nation. Problems of growth and sectionalism. Challenge to the union.

HST 102 American History Since 1865 3 Y  
Reconstruction. Industrialization and its effects. Emergence as a world power. Economic and social problems, reforms. Global war and global responsibilities.

HST 111 Early Modern Europe, 1350-1815 3 Y  
Major characteristics of European political, social, and cultural life from Middle Ages to advent of democratic revolutions.

HST 112 Modern Europe: Napoleon to the Present 3 Y  
European lives and experiences in the age of industrialization, urbanization, and mass politics. World wars, fascism, the Russian Revolution, empires, Europe in the post-World War II era.

HST 121 Global History to 1750 3 Y  
The development of global society up to 1750. Exchanges, connections and interactions between Africa, Asia and the Pacific, India, Latin America and the Caribbean, and the Middle East. The relations between these regions, the Americas and Europe.

HST 122 Global History 1750 to Present 3 Y  
The development of global society since 1750. Exchanges, connections and interactions between Africa, Asia and the Pacific, India, Latin America and the Caribbean, and the Middle East. The relations between these regions, the Americas and Europe.

HST 145 Introduction to Historical Archaeology 3 Y  
Crosslisted with: ANT 145  
Role of history and archaeology in our understanding of 17th- to 19th-century Europe, Africa, and America. Historical archaeology as a mechanism to critique perceptions of the past. Firsthand record of ethnic groups and cultural settings not recorded in writing.

HST 180 International Course 1-6  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HST 200 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HST 201 Research Seminar in History 3 IR  
Introduction to the excitement and techniques of original research. Each seminar begins with introductory readings in a particular area of history; each student researches a question in original sources and presents the results in one or more essays.

HST 210 The Ancient World 3 Y

The Ancient Mediterranean emphasizing major political, cultural, religious, and social developments. The Near East, Classical Greece, Hellenistic Civilization, Roman Republic, Roman Empire up to the fourth century A.D. May not be repeated for credit.

HST 211 Medieval and Renaissance Europe 3 Y

Survey of developments from the end of the Roman Empire to the beginnings of the Age of Discovery. Considers political and economic developments, as well as society, culture, and religion.

HST 222 History of American Sexuality 3 Y

Examines sexuality in America from the colonial period to the present, exploring how American views of sex and desire have changed over time.

HST 231 English History 3 IR

Britain from the Roman occupation through the Revolution of 1688.

HST 232 English History 3 IR

Continuation of HST 231 from 1688.

HST 270 Experience Credit 1-6 Y

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

HST 280 International Course 1-12 Y

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HST 290 Independent Study 1-6 Y

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

HST 295 The Development of Air Power: First 50 Years 0-1 Y

Crosslisted with: ASC 295

Factors contributing to change in the nature of military conflict, the development of air power from its earliest beginnings, and the way air-power doctrine has evolved.

HST 296 The Development of Air Power: 1947 to the Present 0-1 Y

Crosslisted with: ASC 296

The development of air power from the end of World War II to the present. How air power is used in support of both military and nonmilitary national objectives.

HST 300 Selected Topics 1-3 Y

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HST 302 Early American History 3 IR

European invasion of America. Native American resistance. Institutions of conquest, colonization, and empire. Anglicization of the colonists and the acculturation of the Iroquois. Servitude, slavery, and the family.

HST 303 The Age of the American Revolution 3 IR

Provincial America, its peoples, and their societies. Imperial war and administration. Anglo-American politics and dissent. The war of national liberation. Confederation; formation of the Constitution.

HST 304 Age of Jefferson and Jackson 3 IR

Development of political parties and institutions from 1789 to 1850. Impact of major figures, such as Jefferson and Jackson. Social and economic factors.

HST 305 America in Crisis: The Civil War and Reconstruction 3 Y

Coming of the Civil War, leading figures in the crises, and problems of reconstructing the divided nation.

HST 306 The Long Civil Rights Era 3 Y

Explores the development of social and political protest for civil rights from World War I through the 1970's.

HST 307 The United States in the Modern Age, 1917-1963 3 IR

World War I. Social/political development in the twenties. Impact of the Depression. Roosevelt and the New Deal. World War II. Cold War, McCarthyism, private culture of the fifties, emergence of the Civil Rights movement.

HST 308 Recent History of the United States, 1963-Present 3 Y

The Great Society. Domestic ferment in the sixties. Vietnam. Watergate. Economic defeats of the seventies and eighties. Ronald Reagan's America. The politics of the nineties and the shaping of new prosperity.

HST 310 The Early Middle Ages 3 IR

History of Western Europe from c. 300 to c. 850. Political, religious, cultural, social, and economic developments. Special emphasis on reading and analyzing primary sources.

HST 311 Medieval Civilization 3 Y

Political, economic, religious, cultural history of Europe 800-1200, including the fall and rise of royal authority, disagreements over the roles of church and king, economic change, developing ideas and technologies, the rise of cities.

HST 312 Reformation of the 16th Century 3 IR

Protestant and Catholic Reformations. French Civil Wars, social foundations of modern religious denominations, and historical psychology of religious conversion experiences.

HST 313 French Revolution: Sun King to Guillotine 3 Y

How the Europe of Bach, Mozart, Voltaire, and Frederick the Great became the Europe of Beethoven, Goethe, the French Revolution, and Napoleon.

HST 314 Europe from Bismarck to the First World War 3 IR

Domestic development and foreign relations of major European states. Industrialization, urbanization, emergence of mass political parties, socialism and class conflict, social reform, growth of nationalist loyalties, imperialism, causes of World War I.

HST 315 Europe in the Age of Hitler and Stalin 3 Y

World War I as the great divide. Why fascism, crisis for democracies, Soviet dictatorship and its impact on Europeans, and World War II emerged one generation later.

HST 316 Europe Since 1945 3 IR

History of Europe from the fall of the Nazi-led 'New Order' to the present. Cold War in East/West Europe, economic growth/social change, decolonization, welfare state, fall of Communism, European Union, and contemporary Europe.

HST 318 The Middle East to 1900 3 IR

Crosslisted with: MES 318

Beginning with the rise and spread of Islam through the reform era of the nineteenth-century, this course focuses on the social and cultural history of the Ottoman Empire.

HST 319 The Middle East in the 20th Century 3 IR

Crosslisted with: MES 319

Social and cultural history of the Middle East in the twentieth-century, including themes such as colonialism, anti-colonial nationalism, modernity, social movements, women and gender, and contemporary issues.

HST 320 Traditional China 3 Y

Political, economic, social and cultural history before 1650. Emphasis on sources of change and stability. Main themes: Confucianism, Buddhism, and Daoism; invasion and rebellion; conquest and consolidation. May not be repeated for credit.

HST 321 Modern China 3 Y

Political, economic, social and cultural history since 1650. Main themes: Social change in city and countryside, impact of Western nations, enduring legacies of traditional China.

HST 322 Colonial Latin America 3 Y

Crosslisted with: LAS 322, SPA 325

Development of Amer-Indian civilization and the Spanish conquests. Evolution of the Spanish American economy and the unique American culture. Growth of the plantation economy of Brazil. The movements toward independence.

HST 323 Modern Latin America 3 Y

Crosslisted with: LAS 313

The turmoil of the postindependence period and the search for economic and political stability. Reasons for and consequences of export-led growth. The role of the United States in preserving the status quo in the Americas.

HST 324 Recent Latin American History 3 IR

Crosslisted with: LAS 324

Developments since World War I. Political, economic, and social change and growth of nationalism.

HST 325 Africa to 1800 3 Y

Crosslisted with: AAS 325

The first half of a two semester survey focusing on the evolution of African cultures and civilization in the traditional period. Topics: the emergence of man, migration of peoples, economic and social systems, state formation, the slave trade. Arabic influences and the early European settlement in South Africa.

HST 326 Africa Since 1800 3 Y

Crosslisted with: AAS 326

Second half of the survey, studying Africa when it was affected by European peoples and cultures. Topics: penetration by European explorers and missionaries, imperialism and colonialism, African resistance and rebellion, nationalism and liberation, neocolonialism and other problems of independence.

HST 327 A History of Southern Africa 3 IR

Begins before arrival of Europeans in southern Africa. Economic, geographic, sociological, and political factors contributing to development of this unique, racially based modern state. Includes Afrikaaner diaspora, Euro-African conflict during the nineteenth century, Anglo-Boer War, from union to apartheid, and resistance to European domination.

HST 328 Ancient and Medieval India 3 Y

Crosslisted with: SAS 328

Formation of traditional Indian kinship, religion, philosophy, and culture. Vedic society and the rise of Buddhism. Medieval Hindu kingdoms. Expansion and the legacy of Islam. Rise and disintegration of the Mughal empire.

HST 329 Making of Modern India 3 Y

Crosslisted with: SAS 329

British colonial expansion in India. Emergence of nationalism and related movements of religious, social, and cultural reform. Gandhi and non-violence. Struggle for independence and the politics of gender, class, caste, and religious community.

HST 330 The Iroquois 3 IR

The People of the Longhouse, the Five (afterwards Six) Nations, their archaeology, tradition, and history, from 1100 to 1815. May not be repeated for credit.

HST 332 African American History:

Through the 19th Century 3 Y

Crosslisted with: AAS 332

Cultural, economic, political, and social developments shaping experiences of North Americans of African descent. Foundations of collective identity and diversity. African American historiography. Interpretive and methodological issues in historical practice.

HST 333 African American History: After the 19th Century 3 Y

Crosslisted with: AAS 333

Continuation of AAS/HST 332.

HST 334 Social and Cultural History of the United States 3 IR

Social and cultural developments, 1607-1861. American population growth, rural and urban life, religion, education and learning, literature and the arts.

HST 335 American Social and Cultural History 3 IR

Crosslisted with: WGS 335

Nature of "American character" through the last century. Aspects of intellectual life, social mores, industry, and art that represent Americans' definitions of themselves and their nation.

HST 336 United States in World Politics to 1914 3 IR

American diplomacy to 1914.

HST 337 America in the World: The History of U.S. Foreign Relations, 1898-Present 3 IR

This course examines the history of U.S. foreign relations from 1898 to the present. It focuses on the political, economic, ideological, and cultural influences on U.S. foreign policy and the implications of American power broadly defined.

HST 338 History of the Southern United States to 1865 3 IR

Development of Old South society, economy, culture, and politics through readings, lectures, and discussions. First part of two-course survey of Southern United States.

HST 339 History of the Southern United States Since 1865 3 IR

Development of southern society, economy, culture, and politics after the Civil War. Readings, lectures, and discussions. Second part of a two-course survey of the Southern United States.

HST 340 Women in America: 17th Century to the Civil War 3 Y  
Crosslisted with: WGS 342  
Focus on significant social and political transformation, activism, and individuals

HST 341 The Modern American Presidency 3 Y  
Crosslisted with: PSC 329  
Evolution, operation, and perceptions of the American presidency during the last quarter-century. Modern chief executives and factors contributing to their success or failure.

HST 342 Modern American Political Thought 3 IR  
Crosslisted with: PSC 327  
American political thought from the impact of Darwinian science to the present. Basic thought patterns of 20th-century public life and philosophical foundations of contemporary political movements.

HST 343 History of New York State 3 IR  
New York's development since 1850, with special attention to the industrial order on its society, government, politics, and social thinking. Primarily for prospective teachers.

HST 345 Workers and Organized Labor in U.S. History, 1840 to Present 3 IR  
The history of American workers and their efforts at protesting the transformation of the U.S. economy. The Knights of Labor, the A.F.L., the I.W.W., and the C.I.O. Forms of dissent: culture, violence, and radicalism law.

HST 347 Modern American Politics Through Fiction 3 IR  
The political culture of modern America through the medium of popular fiction. Writing intensive and discussion based class, with enrollment limited to 20 Honors students.

HST 348 Queering the Middle Ages? 3 E  
Crosslisted with: QSX 348  
This course introduces students to the models and methods developed in the field of queer theory and applies them to a wide range of medieval texts (letters, novels, monastic rules, medieval historiography, legal texts etc.).

HST 349 Women in America: Civil War to Present 3 Y  
Crosslisted with: WGS 349  
Focus on significant social and political transformation, activism, and individuals.

HST 352 History of Ancient Greece 3 Y  
Ancient Greek political, economic, social, and cultural history based on interpretation of primary sources, both literary and archaeological, from the Bronze Age through Alexander the Great.

HST 353 History of Ancient Rome 3 Y  
Ancient Roman political, economic, social, and cultural history based on interpretation of primary sources, both literary and archaeological, from the foundation of the city to the dissolution of the Empire in the west.

HST 354 Decline and Fall of the Roman Empire 3 Y  
The late Roman Empire and the Mediterranean world from c.200 to c.700. Political, religious, cultural, social history. Rise of Christianity, transformation of classical culture, and the so-called Decline and Fall of Rome.

HST 355 The Italian Renaissance 3 Y  
Renaissance in Italy, between 1330 and 1500. Political, economic, and intellectual developments. Also offered regularly abroad.

HST 356 Italy Since 1600 3 IR  
History of Italy from the end of the Renaissance to the present. Struggle for unification, rise of fascism, and transformations of postwar Italy.

HST 357 Culture and politics in Early Modern England: Henry VIII to Charles I 3 Y  
Renaissance and Reformation in 16th-17th century England. Transformation of politics, culture, and society from Henry VIII through the reign of Charles I, 1485-1649.

HST 358 Revolution and Civil War in 17th Century England 3 IR  
Emergence of modern England, 1603-1714. Triumph of parliamentary institutions, development of capitalism, and beginning of the empire. Intellectual and cultural change: transition from religious controversy to the age of reason.

HST 359 Modern Britain 1850 to the Present 3 IR  
Political, cultural, and intellectual history of Britain from 1850. Considers the idea of Britishness as national identity, cultural construct, or imperial discourse. Questions the meaning of modernity as a model for change.

HST 360 Modern France from Napoleon 3 IR  
Political turbulence as the legacy of revolution and empire. Lushness and crisis. Peasants, workers, city people, army officers, psychiatrists, and priests. France in the age of total war.

HST 361 Germany to World War I, 1770-1918 3-4 IR  
Causes and consequences of the first unification of Germany: Authoritarian and military characteristics of Prussia. Its response to modern challenges. Bismarck's unification of Germany under Prussia. Strengths and weaknesses of the new German Empire. Overthrow in 1918.

HST 362 Nazi Germany and the Holocaust 3-4 Y  
Crosslisted with: JSP 362, QSX 362  
Rise of Nazism, fall of the Weimar Republic, fascist ideology, everyday life under Nazism for "Aryans," Jews, disabled people, Roma, gay people, Afro-Germans, others. Planning for genocide, the Holocaust, reactions and memories after 1945.

HST 363 Germany Since 1945 3-4 IR  
Aftermath of World War II. Development of a corporatist form of capitalist democracy in West Germany and a communist state in East Germany, 1945-1989. Burdens from the Nazi past. Unification in 1990. The current scene.

HST 364 The Origins of Modern Russia 3-4 IR  
Russian history from Muscovy to the Revolution of 1905, with an emphasis on political institutions, the stratification of society, and the growth of the intelligentsia.

HST 365 Russia in the Twentieth Century 3-4 IR  
A survey of Russian history from the Revolution of 1905 to the present, including WW I and revolutions of 1917, Leninism, Stalinism and the collapse of the USSR.

HST 367 Plague to AIDS 3 Y  
Examines the social, institutional, political, and cultural dimensions of disease, healthcare and medicine in Europe from the early modern period to the present day.

HST 368 Islam and the West 3  
Crosslisted with: MES 368, PSC 368  
Topics include globalization and interdependency of faiths, the "clash of civilizations", relations between religion and state in Islam and Christianity and whether it is possible to separate the world into monolithic entities "Islam" and "West".  
Offered in London only.

HST 369 The World at War: 1914-1918, 1939-1945 3 Y  
Major developments in military history of World War I and World War II. Film as one tool for understanding nature and scope of conflicts that changed the world.

HST 371 Gender in Latin American History 3 IR  
Crosslisted with: LAS 371, WGS 371  
History of women and gender relations from colonial period to the present. Influence of race, class, and ethnicity on gender. Relation of gender to labor, family, sexuality, and politics.

HST 372 Race in Latin America 3 IR  
Crosslisted with: LAS 372, NAT 372  
Race relations in Latin America from the late colonial era to present. Indigenous, immigrant, and Afro-Latin American experiences and how they have changed over time. Relations of race to national identity.

HST 375 British Empire 3 IR  
Crosslisted with: SAS 375  
Seminar on expansion of the British Empire (emphasis on India and Africa) in the 18th and 19th centuries. Explores histories of conquest, administration and imperial policy, and the ideologies of imperialism and colonialism.

HST 376 Renaissance London (Honors) 4  
History and development of London in the 16th and 17th centuries. Topics include the visual arts; cultural, economic, and social change; literature and the theater; crime; architecture; and royal politics and government.

HST 377 History of Venice 3 Y  
History of the city of Venice from its origins to the present. Considers Venice as an independent republic and imperial power and its significance in the Western imagination.

HST 378 Early Modern Mediterranean 3 Y  
Focus on Ottomans, Italy, France, Iberia, North Africa, 1348-1789. Topics include international relations and empire-building in Africa, Asia, and Europe; commerce, piracy, plague, religion, family/sexuality, architecture, political and cultural developments during Renaissance, Age of Discovery  
Enlightenment.

HST 379 Gender, Race, and Colonialism 3 IR  
Crosslisted with: WGS 379  
Explores the intersection of gender and race in colonial ideologies, imperial practices and anti-colonial nationalist movements, in the 18th and 19th centuries.

HST 380 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HST 383 Foundations of American Political Thought 3 IR  
Crosslisted with: PSC 326  
American political thought from the Puritans to Lincoln. American Revolution, establishment of the Constitution, and Jeffersonian and Hamiltonian systems.

HST 384 American Environmental History and Geography 3 Y  
Crosslisted with: GEO 354  
Relationship between Americans and the natural environment from the colonial period to the present. Ecological imperialism, technology and nature, resource-management conflicts, urban environments, development of conservation and environmentalism.

HST 385 United States Legal History, 1620 to Present 3 IR  
The role of law in American history from the colonial period to the present. The common law, the Constitution, the market revolution, slavery and emancipation, laissez-faire, legal realism, the New Deal, and civil rights.

HST 386 Crime and Society in American History, 1620 to Present 3 IR  
The history of American deviance and dissent from colonial Massachusetts to the present. Social transformation and the rise of urban crime. The changing role of the state. Police, radicalism, alcohol, vice, sexuality, and organized crime.

HST 387 Women, Abolition, and Religion in 19th Century America 3  
Crosslisted with: REL 341, WGS 341  
The role that religion may have played in women's understandings of themselves as abolitionists and social reformers. A selected group of women will be studied, with considerable attention given to Frances Harper.

HST 388 Vietnam: Movies, Memoirs and the Shaping of Public Memory 3 Y  
An exploration of Vietnam in public memory through film and personal memoirs.

HST 389 LGBT History 3 IR  
Crosslisted with: QSX 389, WGS 389  
The history of lesbian, gay, bisexual, transgender experience in period and region (North America, Europe, or Global) of instructor's expertise, with attention to the international context..

HST 390 Independent Study 1-6 SI  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

HST 391 Mary Magdalene: History of a Legend 3 IR  
Examines legends surrounding Mary Magdalene, from New Testament to Da Vinci Code. Uses diverse primary sources and scholarship; traces the legend's evolution and examines its changing significance.

HST 392 History of the Holocaust 3 Y  
Crosslisted with: JSP 392  
Study of the events and issues of historical interpretation in the Holocaust, 1933-1945. Attitudes and behavior of Nazi perpetrators, Jewish victims, and bystanders.

HST 393 East Asia and the Socialist Experience 3 Y  
Examines the adoption of socialism in East Asia. Historical account of how socialist China, Mongolia, North Korea and Vietnam arose, developed, "failed" and responded to globalization in the 20th century.

HST 394 Partition of India in Film 3 Y  
Crosslisted with: SAS 394  
Explores the partition of India in 1947 through South Asian films.

HST 395 Modern Japan 3 O  
Examines Japanese society from early-modern times (1600-1868) through modern (1868-1945) and postwar Japan (1945-today). Topics include: urbanization, mass culture and nationalism, popular protest, imperialism and empire, gender, war and occupation and globalization.

HST 396 Women and the American Frontier 3 Y  
Crosslisted with: WGS 396  
The North American frontier, from the 17th to the early 20th century, as it was experienced by women of various cultural and national origins.

HST 397 Modern Korea 3 E  
Examines political, economic and social history from 1860 until today. Topics include: colonialism, modernity, division, the Korean War, nation-building, nationalism, democratization, North Korean society, inter-Korean affairs, nuclear issues, Korean Diaspora and "Korea Wave."

HST 398 Saints and Sinners in the Middle Ages 3 Y  
Investigates notions of sanctity and modes to impose morality and social discipline in the medieval period. Reading narrative texts (esp. saints lives and literary texts) as historical sources.

HST 399 Utopia and Institution: Early Monasticism 3 IR  
Investigates the rise of monasticism in the West as a case study on institution forming and the attempts to organize perfect life in a community..

HST 400 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HST 401 Senior Seminar 3 Y  
Research techniques in the use of source material and historical evidence. Preparation of original research paper. Satisfies research requirement for history majors and minors. R1, 6 credits maximum

HST 402 Slavery and Abolition 3 Y  
Crosslisted with: AAS 402  
Evolution and diverse character of North American slavery and antislavery. Slavery as labor, legal, and property system, cultural and political phenomenon, and social and economic network. Politics and ethics of abolition.

HST 403 American History Through Documentary Film 3 Y  
Compares the presentation of US history through documentary film and traditional written sources. Special attention is given to telling history as an act of public memory.

HST 404 Family and Gender in Renaissance Italy 3  
Crosslisted with: ANT 404, WGS 404  
Historical and interdisciplinary exploration of life stages, rites of passage, marriage, family, social life, sodomy, prostitution, career options, and alternate life strategies as illustrated by case studies. Offered only in Florence.

HST 405 History of American Popular Culture 3 IR  
Exploration of the history of American popular culture and the use of popular culture to study history.

HST 406 Contemporary Issues in Chile and Latin America 3 S  
Crosslisted with: IRP 334, LAS 334, PSC 428, SPA 334  
Offered only in Santiago. This seminar features in-situ lectures and activities in Chile, Argentina and Uruguay introducing important political, sociological and environmental issues in the Southern Cone region.

HST 408 The Practice of Eros: A History of Sexuality in Europe (1400-1800) 3  
Crosslisted with: ANT 408, WGS 408  
Authorized and "alternative" sexuality in Europe 15th to 18th centuries (especially Italy, France, and England.) "Licit love" (courtship, marriage, conjugal relations) as opposed to "illicit unions" (adultery, rape, prostitution, bestiality, homosexuality, lesbianism). Offered only in Florence.

HST 409 A History of Witchcraft 3  
Crosslisted with: ANT 409, REL 409, WGS 409  
History of witchcraft from various perspectives: its intellectual roots, the causes and dynamics of the witch-hunt, and the beliefs and self-perceptions of those who were called "witches". Offered only in Florence.

HST 410 Science and Technology in the Modern World 3 SI  
Crosslisted with: STS 410  
Interaction of science with technology from 1700 to the present. Technological artifacts and their scientific background. Development of new technology from scientific research and from old-fashioned dreaming and tinkering.

HST 411 Contemporary Central and Eastern Europe 3 Y  
Crosslisted with: PSC 421  
Offered only in Strasbourg. This course is designed to help students grasp the overall nature of contemporary Eastern and Central Europe, with emphasis on the breakup of the Soviet Union, and challenges of democratization and of EU unification.

HST 412 Understanding 20th Century Spain 3 S  
Crosslisted with: PSC 422  
Offered only in Madrid. Course begins with War of Cuba and ends with Spain's new role in EU, NATO and UN. Particular focus on the rapid changes within Spain during this period and how these were accomplished.

HST 413 China Encounters the West: Qing Dynasty to Early Republic 3 Y  
Offered only in Beijing. This course surveys the political, social, and cultural history of Qing China, using the great city of Beijing, the Qing capital, as its backdrop.

HST 414 America: A Foreign Perspective 3 Y  
Offered only in London. US role in foreign policy from a British and global community perspective and issues of US identity and place in the world. Events include Suez Crisis, Cuban Missile Crisis, Vietnam, 9/11, the War on Terror.

HST 415 Europe, Russia and the Eastern Borderlands 3 Y  
Offered only in Strasbourg. The first part of course focuses on question of borders/territorial change, construction of nations, and emergence/collapse of empires. The second part examines general problems common to post-communist countries.

HST 416 Europe and Arc of Crises 3 Y  
Offered only in Strasbourg. Topics covered include European and American perspectives on Middle East; cultural, social and economic issues, such as inter-religious dialogue, migration and drug trafficking; the status of Turkey; Afghanistan and state terrorism.

HST 417 History of Women in Spain 3 S  
Crosslisted with: SPA 417, WGS 417  
Offered in Madrid only. History of women in Spain from primitive communities to the present. Topics include medieval, Golden Age, Enlightenment, and Romanticism; liberalism and feminism; women under Franco; Marxism and feminism; feminist movement in Spain.  
PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

HST 422 Ethnic History of Britain 3 S  
Crosslisted with: ANT 402  
Offered only in London. Examines the ways in which migration has shaped and reworked British national identity over the past two thousand years through the study of original historical sources, literature, film and music, and explores the contributions that migrants have made to modern British society.

HST 424 Dictatorships, Human Rights, and Historical Memory in the Southern Cone 3 S  
Crosslisted with: IRP 424, LAS 424, PSC 424  
Offered only in Santiago. The time period (1940-present) and its significance and contributions to the configuration of social, political and economic aspects of Chile today. Relies on primary sources, comparisons within the Southern Cone, and a focus on US role and influence during this period.

HST 434 Underground Railroad 3 SI  
Crosslisted with: AAS 434, ANT 494; Double Numbered with: HST 634  
Myth and history of the Underground in the context of African American freedom efforts. Emphasis on events, personalities, and sites in upstate New York. Student field research and exploration of archival and Internet resources. Additional work required of graduate students.

HST 441 Europe and International Security Issues 3 Y  
Crosslisted with: PSC 441  
Offered only in Strasbourg. Historical evolution of the concept of international security within the framework of European security-related institutions and the place of Europe in the context of new security challenges.

HST 443 Culture, Confucianism and Chinese Modernity 3 Y  
Crosslisted with: ANT 403  
Offered only in Beijing. Contemporary China from historical and cultural perspectives. Exploration of political and ideological conflicts between China and the West. Patterns of Chinese culture. Impact of Confucianism on Chinese society and its influence outside of China

HST 444 Culture, Business and Political Economics in East Asia 3 Y  
Crosslisted with: INB 444, IRP 444, PSC 444  
Offered only in Hong Kong. Examines the historical and contemporary forces that shape the cultural, social and economic institutions in East Asia and how these institutions affect one another.

HST 445 Contemporary British Politics and the Modern World 3 S  
Crosslisted with: PSC 445  
Offered only in London. British political system and the historical factors shaping it, as well as Britain's role in creating the modern world and its place in the world today.

HST 447 France from the Revolution to the Great War 3 Y  
Crosslisted with: FRE 447  
Study of the rise of the French Republic, its revolutions, and its recurrent lapses into authoritarian rule, notably under Napoleon I and III. Conducted in French. Offered in Strasbourg only. [Effective spring 2009]  
PREREQ: FRE 202.

HST 449 France from the Treaty of Versailles to European Integration 3 Y  
Crosslisted with: FRE 449  
Analysis of major events in recent French history, including the rise of the Popular Front, the Nazi Occupation, the end of colonial rule, and the process of European integration. conducted in French. Offered in Strasbourg only. [Effective spring 2009]  
PREREQ: FRE 202.

HST 451 Visual Culture Past and Present: Gender, Religion and Politics 3  
Crosslisted with: CRS 451, REL 451, WGS 451  
Offered only in Florence. Contemporary visual culture; its representation of gender, religion, and politics and the origins of that representation in a pictorial language first codified in Italy and Europe between circa 1450 and 1650.

HST 452 Italy: Past, Present and Future Challenges 3 S  
Crosslisted with: PSC 452  
Offered only in Florence. Italian society and politics from unification to present. Topics include role of the family, emigration and immigration, stereotypes and regional identities, processes and components of Italian society and culture. Analysis of current situation and future challenges.

HST 453 Twentieth Century Europe 3  
Crosslisted with: PSC 453  
Politics, society, war, and peace in Europe, 1919-1992. Nazi Germany, WW II, the Cold War, post-war reconstruction, social and economic transformations, and the revolutions of 1989 in Eastern Europe. Offered only in Florence.

HST 454 Family and Gender in Contemporary Italy 3 IR  
Crosslisted with: SOC 454, WGS 454  
Family structures and gender relations in Italy from the Unification to the present. Offered only in Florence.

HST 457 Gender, Politics, Society in Europe (1400-1800) 3 IR  
Crosslisted with: SOC 457, WGS 457  
Relationship between the sexes in politics, philosophy, literature, and art. Emergence of a dissident "voice" relative to gender identity and social role, with implications for race and religion. Offered only in Florence.

HST 470 Experience Credit 1-6  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

HST 480 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

HST 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

HST 495 Distinction Thesis in History 3 S  
Conducting research and writing a thesis for departmental distinction in History under the guidance of a faculty member.

HST 496 Distinction Thesis in History 3 S  
Conducting research and writing a thesis for departmental distinction in History under the guidance of a faculty member.  
PREREQ: HST 495.

HST 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

HST 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

HST 510 Studies in African American History 3 IR  
Crosslisted with: AAS 510  
Particular periods or aspects of African American history. R

### International Relations

IRP 334 Contemporary Issues in Chile and Latin America 3 S  
Crosslisted with: HST 406, LAS 334, PSC 428, SPA 334  
Offered only in Santiago. This seminar features in-situ lectures and activities in Chile, Argentina and Uruguay introducing important political, sociological and environmental issues in the Southern Cone region.

IRP 401 Global Policy Seminar 3 S  
A traveling, all-day weekly seminar on how U.S. foreign and national security policy is made and "how Washington works." Features guest speakers and visits to agencies and offices. Offered only in Washington, D.C.

IRP 402 Global Policy Seminar II 3 S  
A traveling, all-day weekly seminar on how U.S. foreign and national security policy is made and "how Washington works." Features guest speakers and visits to agencies and offices. Offered only in Washington, D.C., and in conjunction with IRP 401.

IRP 403 Global Issues 3 S  
Topics such as terrorism, weapons proliferation, AIDS, global warming, drugs, refugees, migration; lively debate, simulations. Offered only in Washington, D.C.

IRP 404 Global Political Economy Issue 3 S  
International trade and economic issues; the politics of economics and economic elements of global concerns. Guest experts, advocates from interest groups in the nation's capital. Offered only in Washington, D.C.

IRP 412 Global Governance: The United Nations System 3 Y  
Crosslisted with: PSC 412  
The theory and practice of global governance and international diplomacy through an in-depth study of the United Nations system. Critique readings and discuss current UN-related events. Fulfills the IR capstone for International Law and Organizations (ILO). Permission of instructor.  
PREREQ: PSC 124 OR 139.

IRP 413 Global Governance Practicum 3 Y  
Focuses on UN history, structure, and operation; processes of international negotiation and UN politics; and resolution writing and negotiation techniques. Apply theories and concepts of international relations studied in the classroom through active participation in an international conference simulation.  
PREREQ: PSC 124 OR 139. R1, 6 credits maximum

IRP 424 Dictatorships, Human Rights, and Historical Memory in the Southern Cone 3 S  
Crosslisted with: HST 424, LAS 424, PSC 424  
Offered only in Santiago. The time period (1940-present) and its significance and contributions to the configuration of social, political and economic aspects of Chile today. Relies on primary sources, comparisons within the Southern Cone, and a focus on US role and influence during this period.

IRP 426 Cultures and Politics of Afghanistan and Pakistan 3 E  
Crosslisted with: ANT 426, SAS 426  
Introduction to Afghanistan and Pakistan, recent histories, cultures, current politics. Covers geography, religious systems, gender roles, economic systems, foreign policy issues, refugees, migration. Additional work required of graduate students.

IRP 431 Environment and Development in China 3 S  
Offered only in Beijing. Addresses challenges in the environment and development arena in contemporary China, with analysis of conflict and resolution from multiple public policy perspectives.

IRP 443 Southeast Asia in the World Political Economy 3 Y  
Crosslisted with: GEO 443, INB 443, PSC 443  
Offered only in Hong Kong. Explores the historical and contemporary forces that have shaped the South East Asian region and its unique cultural, social, political and economic characteristics.

IRP 444 Culture, Business and Political Economics in East Asia 3 Y  
Crosslisted with: HST 444, INB 444, PSC 444  
Offered only in Hong Kong. Examines the historical and contemporary forces that shape the cultural, social and economic institutions in East Asia and how these institutions affect one another.

IRP 450 Undergrad Research Prog 1-6 S R

IRP 458 Contemporary Issues in Turkey 3 S  
Crosslisted with: PSC 458, SOC 458  
Offered only in Istanbul. Key political and social issues in contemporary Turkey. Democratization; relationship between secularism, the role of the military and Islam in political life; foreign policy including Turkish-US relations; nationalism, minorities, gender, human rights. Additional work required of graduate students.

IRP 468 Middle East in Anthropological Perspective 3 IR  
Crosslisted with: ANT 468, MES 468  
Anthropology of the social, cultural, geographical, and political realities of the Middle East. Additional work required of graduate students.

IRP 471 Global Internship 3 S  
Internship offered in Washington, D.C. as part of the Maxwell-Washington IR semester. Students accepted on the basis of academic qualifications.

IRP 480 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R1

IRP 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Middle Eastern Studies

MES 165 Discovering Islam 3 Y  
Crosslisted with: REL 165, SAS 165

Islam as a faith and a civilization. Understanding its origins, beliefs, rituals, and the historical development of its intellectual traditions in the pre-modern and modern eras, and its geographic, cultural and theological diversity today.

MES 200 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MES 308 Ancient Judaism and the Origins of Christianity 3 S  
Crosslisted with: JSP 308, REL 308  
Offered only in Madrid. Social, cultural, intellectual, and historical conditions which surrounded the birth of this new world religion in its ancient Mediterranean cradle--from Mesopotamia and Egypt to Greece and ancient Rome.

MES 315 Topics in Ethnic Literatures and Cultures 3 Y  
Readings in one or more ethnic literature and culture, such as Irish, Italian American, Judaic, Latino, Native American, or Asian American. First offered in Summer 2015 R2, 9 credits maximum

MES 318 The Middle East to 1900 3 IR  
Crosslisted with: HST 318  
Beginning with the rise and spread of Islam through the reform era of the nineteenth-century, this course focuses on the social and cultural history of the Ottoman Empire.

MES 319 The Middle East in the 20th Century 3 IR  
Crosslisted with: HST 319  
Social and cultural history of the Middle East in the twentieth-century, including themes such as colonialism, anti-colonial nationalism, modernity, social movements, women and gender, and contemporary issues.

MES 321 Christians, Jews and Muslims 3 S  
Crosslisted with: HUM 321, JSP 321, REL 321  
Offered only in Madrid. Key historic encounters between the three versions of monotheism, with reference to the richness of past cultural and religious legacy rooted in the Mediterranean region.

MES 336 Arabic Cultures 3 IR  
Crosslisted with: LIT 336  
Arabic culture through geography, literature, religion (Islam and other religions), ethnic groups, social divisions, films, the media, music, art, food, gender issues, and everyday life.

MES 342 Religion and Politics in the Israeli-Palestinian Conflict 3 IR  
Crosslisted with: JSP 342, PSC 342, REL 342  
Considers the extent to which religion matters in an enduring ethno-nationalist conflict. Approaches the Israeli-Palestinian conflict from an interdisciplinary perspective that explores the intersection of religion and politics.

MES 344 Politics of the Middle East 3 Y  
Crosslisted with: PSC 344  
Religious, political, economic, and social dimensions of life in modern Middle East. Legacy of Islam, encounter with Western modernity, Arab-Israeli conflict, and political economy of the region.

MES 345 Islam and Politics in Asia 3 IR  
Crosslisted with: PSC 345  
Survey of the diverse and protean role Islam plays in Asian public life by analyzing the variegated cultural, political, religious, and social milieu that it has encountered in Central, South, and Southeast Asia.

MES 349 Politics of Iran 3 IR  
Crosslisted with: PSC 349  
Historical and theoretical understanding of modern Iranian politics and society from the late 19th century to the present time.

MES 350 Gender, Violence, and Sexualities in the "War on Terror" 3 Y  
This course analyzes the ways in which gender has been employed in developing narratives of US national security and the War on Terror after 9/11.

MES 360 Reading Gender and Sexualities: Gender and Sexuality in the Arab World 3 S  
This course explores the ways in which gender and sexuality are represented in an array of visual, historical, and literary texts from the Arab world and its diaspora, starting from the pre-Islamic era up till the contemporary period.

MES 364 Enchanting Words: Muslim Poets, Singers and Storytellers 3 Y  
Crosslisted with: REL 364, SAS 364  
Understand the power of words and language in Muslim cultures expressed in oral and literary genres including poetry, humor, fables, folksongs and travel journals. Explore key themes such as virtue, reality, divine and human nature.

MES 365 God and Beauty in Islamic Art 3 Y  
Crosslisted with: REL 367, SAS 367  
Expressions of beauty, creativity and faith in Islamic calligraphy, ceramics, textiles, architecture, miniatures and music. Unity and diversity of the visual and performing arts of Muslims in different periods, cultures and regions.

MES 366 Representations of the Middle East 3 IR  
Crosslisted with: PSC 366  
The politics of "gazing" and cultural imagination through critical analysis of how the mass media articulates, transmits, promotes and legitimizes knowledge and information about the Middle East.

MES 367 Oil, Water and War 3 IR  
Crosslisted with: PSC 367  
Examines current level of knowledge about historical connections among war and the resources of petroleum and fresh water. Also looks at how alternative claims about these goods will be expressed in the future.

MES 368 Islam and the West 3  
Crosslisted with: HST 368, PSC 368  
Topics include globalization and interdependency of faiths, the "clash of civilizations", relations between religion and state in Islam and Christianity and whether it is possible to separate the world into monolithic entities "Islam" and "West". Offered in London only.

MES 382 Health in the Middle East 3 IR  
Crosslisted with: ANT 382, HTW 382  
Surveys major cultural, biological and environmental features of the Middle East and relates them to aspects of health including infectious disease, chronic disease, reproductive health, population, war, poverty and globalization.

MES 386 Sounds of the Silk Road 3 IR  
Crosslisted with: HOM 386, SAS 386  
The soundscapes of the overland Silk Road as a window into history, commerce, migration, social life, values, faith, tolerance and conflict. Case studies from Turkish, Arabic, Persian, Central Asia, and Southwest Asia musics.

MES 391 Revolutions in the Middle East 3 IR  
Crosslisted with: PSC 391  
A comparative study of revolutions in the Middle East in terms of causes, processes and outcomes.

MES 392 Sociology of Islamic Fundamentalism 3 IR  
Crosslisted with: PSC 392  
A study of the social origins and political outcomes of Islamic Fundamentalism.

MES 393 Middle Eastern Political Systems 3 IR  
Crosslisted with: PSC 393  
Study of Middle Eastern political systems in terms of cleavages and crisis.

MES 394 History of Islamic Political Thought 3 IR  
Crosslisted with: PSC 394  
A study of Islamic political and social attitudes pertaining to contemporary issues.

MES 395 Democratization in the Muslim World 3 IR  
Crosslisted with: PSC 395  
Reasons for and dynamics of democratization in some Muslim countries.

MES 404 'AZAHAR' The Islamic Conquest and the Christian Reconquest 2 S  
Crosslisted with: FLL 404, HUM 404  
Thirteen day interdisciplinary seminar. Lectures in situ. Artistic, historical, cultural monuments of Cordoba, Sevilla, Granada and Toledo or Salamanca. Theological, philosophical and historical thought as to recreate the artistic and cultural climate of medieval al-Andalus/Spain.

MES 406 The Middle East in Graphic Novels 3 E  
Graphic narratives that handle complex issues defining life in the Middle East and its diaspora, including wars and military conflicts, coming-of-age struggles, and gender relations.

MES 430 Senior Seminar in Middle Eastern Studies 3 Y  
A required course for students pursuing a minor or major in Middle Eastern Studies. An interdisciplinary study of special topics that fall under the rubric of Middle Eastern Studies: Western modernity, Islamic thought and practices, and popular culture.  
PREREQ: MES 344. R1, 6 credits maximum

MES 453 Feminisms, Sexualities, and Human Rights in Middle Eastern Societies 3 Y  
Crosslisted with: QSX 453, WGS 453  
This course maps women's rights movements, LGBTQ mobilizations, and minority activism in the Middle East. It focuses on the centrality of gender and sexuality to the politics of everyday life.

MES 465 Beyond the Veil: Gender Politics in Islam 3 Y  
Crosslisted with: REL 465, SAS 465, WGS 465; Double Numbered with: MES 626  
Politics of gender, religious identities, and resistance in the Islamic world. Gender scripts in Qur'anic scripture and Shariah laws. Contemporary realities of Muslim women living in different parts of the world. Additional work required of graduate students.

MES 468 Middle East in Anthropological Perspective 3 IR  
Crosslisted with: ANT 468, IRP 468; Double Numbered with: MES 668  
Anthropology of the social, cultural, geographical, and political realities of the Middle East. Additional work required of graduate students.

MES 495 Distinction Thesis in Middle East Studies 3 SI  
Thesis in partial fulfillment of the requirements for the Distinction in Middle Eastern Studies Program. Normally in the semester prior to graduation, topic chosen in conjunction with advisor.

MES 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R

### Native American Studies

NAT 105 Introduction to Native American Studies 3 S  
Overview of critical issues in Native American Studies: colonization, religious freedom, environment, sovereignty, and politics of identity, interdisciplinary, comparative, and indigenous perspectives in relation to histories, societies, and cultures.

NAT 142 Native American Religion 3 Y  
Crosslisted with: REL 142  
Religious beliefs and practices of native Americans; the diversity as well as similarity of religious expression.

NAT 200 Selected Topics in Native American Studies 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

NAT 208 Haudenosaunee Languages and Culture 3 O  
Languages and culture of the six Haudenosaunee Indian nations. Terminology and structure of Haudenosaunee languages. Creation story, Great Law of Peace, Code of Handsome Lake.

NAT 244 Indigenous Religions 3 E  
Crosslisted with: ANT 273, REL 244  
The connections between material life and religious life in cultures throughout the world. The diverse ways that various cultures inhabit their landscapes.

NAT 290 Independent Study 1-6 S  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

NAT 300 Selected Topics in Native American Studies 1-3 S  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

NAT 301 Iroquois Verb Morphology I 3 Y  
This course will analyze the Iroquois verb. The students will be introduced to the morphological structure common to all Iroquois languages.

NAT 302 Iroquois Verb Morphology II 3 Y  
This course will analyze the Iroquois verb. The students will be introduced to the morphological structure common to all Iroquois languages. This is the second course in a two part series.  
PREREQ: NAT 301.

NAT 305 Iroquois Phonetics and Phonology 3 Y  
Explores the sounds and sound systems of the Iroquois Languages (Onondaga, Mohawk, Seneca, Cayuga, Oneida, Tuscarora.) How sound systems are related to writing systems.

NAT 306 Iroquois Syntax and Semantics  
3 Y  
A study of semantic distinctions and syntactic structures in Iroquois Languages.  
PREREQ: NAT 305.

NAT 308 Iroquois Linguistics in Practice  
3-6 Y  
This course will guide the student through the practical application of phonetics, phonology, semantics, morphology and syntax to their Iroquois language learning and teaching experience.  
PREREQ: NAT 301 AND 302 AND 305 AND 306.

NAT 323 Peoples and Cultures of North America 3 IR  
Crosslisted with: ANT 323  
Racial, linguistic, and cultural areas of North America from the Rio Grande to the Arctic. Selected areas and tribes. Data from archaeology, historical records, and contemporary anthropological fieldwork.

NAT 346 Native North American Art 3  
Crosslisted with: HOA 387  
Critical exploration of meanings, functions, techniques, and varieties of art in Native North American cultures, ancient to present. Attention to continuities, changes, and cultural exchanges; anthropological vs. art historical perspectives: limitations of term "art."

NAT 347 Religion and the Conquest of America 3 IR  
Crosslisted with: REL 347  
The development of America through the contact between indigenous and colonial people's divergent religious understandings of land.

NAT 348 Religion and American Consumerism 3 IR  
Crosslisted with: REL 348  
Interrogates the relationship of American religious and economic practices, as compared with Native American traditions, during the 19th and 20th centuries.

NAT 372 Race in Latin America 3  
Crosslisted with: HST 372, LAS 372  
Race relations in Latin America from the late colonial era to present. Indigenous, immigrant, and Afro-Latin American experiences and how they have changed over time. Relations of race to national identity.

NAT 400 Selected Topics in Native American Studies 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

NAT 438 Native American Health Promotion 3 Y  
Crosslisted with: HTW 438; Double Numbered with: NAT 638  
Examines Native American culture and its contribution to wellness, including indigenous foodways, fitness and indigenous knowledge as an adjunct to chemical dependency treatment. Includes the historical roots of trauma as social determinants of health disparities. Additional work required of graduate students.

NAT 441 Federal Indian Policy and Native American Identity 3 IR  
Crosslisted with: SOC 441  
Shifts in Federal Indian policy and the social construction of American Indian identity. Identity struggles and identity politics in relation to blood and descent, community, land and sovereignty.

NAT 444 Contemporary Native American Movements 3 IR  
Crosslisted with: SOC 444  
Sociological analysis of Native American movements from 1960s to the present. National and regional movements in relation to jurisdictional issues and human rights. Red Power and pan-Indian movements are considered.

NAT 445 Public Policy and Archaeology 3 IR  
Crosslisted with: ANT 445; Double Numbered with: NAT 645  
Proactive critique of public policy and implementation efforts to preserve and protect archaeological and historical sites and resources. Additional work required of graduate students.

NAT 447 Archaeology of North America 3 IR  
Crosslisted with: ANT 447; Double Numbered with: NAT 647  
Introduction to the regional prehistory of North America north of Mexico, from the late Pleistocene until European contact. Adaptation of prehistoric human populations to their ecosystems. Additional work required of graduate students.  
PREREQ: ANT 141 OR 145.

NAT 456 Representations of Indigenous Peoples in Popular Culture 3 IR  
Crosslisted with: ANT 456; Double Numbered with: NAT 656  
Contested images used by colonizers and other non-indigenous people to represent Native Americans and other indigenous peoples. How indigenous people represent themselves in a variety of media. Additional work required of graduate students.

NAT 459 Contemporary Native North American Issues 3 IR  
Crosslisted with: ANT 459; Double Numbered with: NAT 659  
Contemporary issues including federal Indian policy, population controls, fishing rights, religious freedom, land disputes, gaming, repatriation, environmental colonialism, and Native American artistic response. Additional work required of graduate students.

NAT 461 Museums and Native Americans 3 IR  
Crosslisted with: ANT 461; Double Numbered with: NAT 661  
The contested relationships among Native North Americans and museums from earliest contact until the present. Topics include: "salvage" ethnography, collecting practices, exhibition, and recent shifts in power. Additional work required of graduate students.

NAT 490 Independent Study 1-6 S  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

#### Public Admin & Internatl Affrs

PAI 515 China in Transition 3 S  
Offered only in Beijing. Seminar examines the unprecedented, multi-faceted transitional changes occurring in China since the late 1970s. Impact of reforms on China's external relations.

PAI 580 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

## Political Science

### PSC 121 American National Government and Politics 3 S

American political institutions. Basic principles embedded in structure and practices of American government. Practical consequences of this political system for the citizen. Credit is given for PSC 121 or PSC 129, but not both.

### PSC 122 American State and Local Government and Politics 3 IR

Role of state and local politics in American politics. Changing notions of proper political process and governance. Nature of the political process. State and local interactions. Politics and policy pursuance.

### PSC 123 Comparative Government and Politics 3 Y

Comparison of selected governmental institutions, individual and collective political actors, and issues across the industrialized and developing world. Particular attention to dynamics of socioeconomic and political change.

### PSC 124 International Relations 3 S

Foreign policy, decision making, comparative foreign policy, international transactions, and the international system. Credit is given for PSC 124 or PSC 139, but not both.

### PSC 125 Political Theory 3 Y

Introduction to theories of major modern political philosophers (Locke, Rousseau, Hume, J.S. Mill, Marx). Contemporary theories of liberty, justice, and equality.

### PSC 129 American National Government and Politics (Honors) 3 IR

American political institutions and their founding. The public role in a democratic regime. Ability of contemporary arrangements to meet the demands of the modern world. Credit is given for PSC 121 or PSC 129, but not both.

### PSC 139 International Relations (Honors) 3 IR

Major world views which comprise contemporary international relations. Lectures, readings, journal writing, and small group discussion. Credit is given for PSC 124 or PSC 139, but not both.

PSC 141 Liberty and Power from the Ancient World to Modernity 3 Y  
Overview of those historical, social and political processes that have led to the birth of the modern world. Offered only in Florence for Discovery Florence students.

### PSC 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### PSC 202 Introduction to Political Analysis 3 S

Introduction to important political science concepts; basics of political argumentation and reasoning; and basic quantitative research and analysis techniques.

### PSC 270 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### PSC 290 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

### PSC 300 Selected Topics 1-3 S

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### PSC 302 Environmental Politics and Policy 3 Y

The environmental policy process and the politics that influence the formulation and adoption of environmental policies in the United States.

### PSC 303 The Development of the American State 3 IR

The size and scope of the national government has been a central organizing principle of political conflict throughout American history. This course explores the American state's changing relationship to society and economy over time.

### PSC 304 The Judicial Process 3 Y

American legal structure and process: policy making by courts, relations with other branches of the national government, and the changing role of the Supreme Court in our federal political system.

PSC 305 U.S. Congressional Politics 3 IR  
Functions of the legislative branch: representation, control of the public purse, and executive oversight. Recent changes brought about by electoral forces and internal reforms.

### PSC 306 African American Politics 3 Y Crosslisted with: AAS 306

Introduction to the African American experience in the American political system, from the colonial period to the present. Organization/leadership, federal institutions/relations, sociopolitical movements, and electoral politics.

### PSC 307 The Politics of Citizenship 3 Y

How governments understand membership through citizenship laws and practices. Includes the history of citizenship, evolution of modern citizenship, migration, and "post-national" citizenship.

### PSC 308 The Politics of U.S. Public Policy 3 IR

Relationship between American political institutions, politics and public policy. Significance of public policies for democratization in the U.S., highlighting dynamics of race, class, and gender. Development and implementation of policies.

### PSC 309 Interest Group Politics 3 IR

Uses theoretical and real world materials to examine the strengths and weaknesses of interest groups in American politics. The role of groups in shaping public interest and influencing policy decisions.

PSC 311 American Political Parties 3 IR  
Historical and contemporary roles of political parties in American government and politics.

### PSC 312 Urban Government and Politics 3 IR

Changes in populations, notions of governance, and means of governance in city and metropolitan politics. Effects of political arrangements on responses to people and the public policies pursued. Role of private power.

### PSC 313 Campaign Analysis 3 IR

In-depth analysis of specific campaigns. Review of literature, followed by analysis, involving: media review, targeting analyses, survey writing, polling, survey analysis, exit polling, and review of election results. Acquisition and application of skills.

**PSC 314 Public Opinion and Electoral Behavior 3 IR**

American mass public; origins, nature, effects of its political beliefs, and patterns of its voting behavior.

**PSC 315 Politics and Media 3 Y**

Sometimes called the 'fourth branch' of government, the media are an integral part of the political landscape. This course explores the role of the media in the operation of government and in the conduct of politics.

**PSC 316 The Supreme Court in American Politics 3 Y**

The Court's dual character as a legal and political institution. Explores the Court's decision-making process and the impact of those decisions on politics and policy.

**PSC 317 Local Internship 3 S**

Students work in conjunction with members of Congress, state legislature, or in local political campaigns. Representatives of these offices come to seminars for discussions about working in government and politics.

**PSC 318 Technology, Politics, and Environment 3 Y**

Advanced technology as a focal point of governmental and political conflict in the United States and other nations. Interplay of technology and politics as a struggle over who will control the future and for what ends.

**PSC 319 Gender and Politics 3 Y**

Crosslisted with: WGS 319

Relationships between gender and American political institutions, law, and policymaking processes. How social movements based on gender, prevailing gender ideologies, and gender relations have shaped American politics. Exploring how the American state has shaped the political meanings and relative positions of power associated with men and women.

**PSC 321 Populism and Conspiracy Culture 3 Y**

Populist movements and roots of conspiracy culture in American politics. Populist ideology centered around suspicion of a manipulative power elite is a recurrent theme in American political discourse of both left and right.

**PSC 322 International Security 3 Y**

Introduction to the field of security studies within the discipline of Political Science. Case studies with a special focus on the U.S. role in fostering international security, and contemporary dilemmas for U.S. national security.

**PSC 323 Politics of the Executive Branch 3 IR**

This course offers in-depth examination of the historical development of the U.S. Executive branch, particularly the capacity of the President and the bureaucracy for making and implementing policy within the larger political system.

**PSC 324 Constitutional Law I 3 Y**

Introduction to American constitutional interpretation. Historical survey of basic Supreme Court doctrines focusing on the first 150 years of judicial action. The Court's role as a political institution.

**PSC 325 Constitutional Law II 3 Y**

Contemporary constitutional interpretation, focusing on the Bill of Rights and the fourteenth amendment. Issues of race, gender, privacy, property, free speech, religious diversity, and political representation.

**PSC 326 Foundations of American Political Thought 3 IR**

Crosslisted with: HST 383

American political thought from the Puritans to Lincoln. American Revolution, establishment of the Constitution, and Jeffersonian and Hamiltonian systems.

**PSC 327 Modern American Political Thought 3 IR**

Crosslisted with: HST 342

American political thought from the impact of Darwinian science to the present. Basic thought patterns of 20th-century public life and philosophical foundations of contemporary political movements.

**PSC 328 American Social Movements 3 IR**

Crosslisted with: WGS 318

Social movements were always integral to American politics. Includes emergence, strategies, political context and influence of temperance, abolition of slavery, women's suffrage, labor, civil rights, anti-war, feminism, nuclear freeze, gay rights, and global justice movements.

**PSC 329 The Modern American Presidency 3 Y**

Crosslisted with: HST 341

Evolution, operation, and perceptions of the American presidency during the last quarter-century. Modern chief executives and factors contributing to their success or failure.

**PSC 331 Canadian Politics 3 IR**

An introduction to Canadian politics with a comparative perspective, this course covers core features of national government (parliament, courts, federalism) plus distinctive aspects such as Quebec nationalism, multiculturalism and indigenous rights.

**PSC 333 Politics of Latin America 3 Y**

Crosslisted with: LAS 333

Political processes and institutions in Latin America. The region's experience with modernization.

**PSC 334 Mexico and the United States 3 O**

Crosslisted with: LAS 335

The history and politics of Mexico, with special attention to relations between Mexico and the United States and the politics of immigration, NAFTA, the drug trade, and other bilateral issues.

**PSC 335 Politics of East Asia 3 Y**

Domestic and international politics of East Asia broadly defined. Political development and structure of major countries: Japan, Korea, and China. Politics of public policy, international, and transnational relations in the region.

**PSC 337 Political Psychology 3 IR**

Principles of social and cognitive psychology applied to political life. How political beliefs are developed and maintained, how such beliefs affect political behavior, and how individuals matter in policymaking as well as in the mobilization of political movements.

**PSC 338 Comparative Political Parties 3 IR**

How and why political parties form. The impact of electoral rules, social structures, and other factors on their organization, influence, and competition. Comparison of parties and national party systems around the world.

**PSC 339 Transitions to Democracy 3 IR**

The underlying forces and processes of political regime change and transitions to democracy in the modern world.

**PSC 341 Politics of Africa 3 Y**

Crosslisted with: AAS 341

Historical foundations of the move towards political freedom, democracy and self rule in Africa. Dynamics of the political process.

PSC 342 Religion and Politics in the Israeli-Palestinian Conflict 3 IR  
Crosslisted with: JSP 342, MES 342, REL 342  
Considers the extent to which religion matters in an enduring ethno-nationalist conflict. Approaches the Israeli-Palestinian conflict from an interdisciplinary perspective that explores the intersection of religion and politics.

PSC 343 Politics of Europe 3 Y  
The politics of Western and Eastern Europe. Domestic political and political economic institutions and the process of European integration.

PSC 344 Politics of the Middle East 3 Y  
Crosslisted with: MES 344  
Religious, political, economic, and social dimensions of life in modern Middle East. Legacy of Islam, encounter with Western modernity, Arab-Israeli conflict, and political economy of the region.

PSC 345 Islam and Politics in Asia 3 IR  
Crosslisted with: MES 345  
Survey of the diverse and protean role Islam plays in Asian public life by analyzing the variegated cultural, political, religious, and social milieu that it has encountered in Central, South, and Southeast Asia.

PSC 346 Comparative Third World Politics 3 Y  
Crosslisted with: AAS 346  
Examines thematically and comparatively the political systems of South America, Asia, and Africa, exploring topics such as colonization, decolonization, nation-building, the postcolonial state and its institutions, the recent wave of democratization, and the challenges of socioeconomic development.

PSC 347 Politics of Russia 3 Y  
Politics of Russia and the former Soviet Union. Political institutions, and political, economic, and social change, particularly since 1991.

PSC 348 Politics and the Military 3 IR  
The military's role in the modern state and in modern society. Broad geographic coverage, including the United States, Europe, Latin America, Africa, the Middle East, and Asia.

PSC 349 Politics of Iran 3 IR  
Crosslisted with: MES 349  
Historical and theoretical understanding of modern Iranian politics and society from the late 19th century to the present time.

PSC 350 Problems in International Relations 3 IR  
Selected problems and issues. Specific topics chosen by the instructor. R

PSC 351 Political Economy of Development 3 Y  
The interrelationship of political, social, and economic factors that produce development outcomes. The role of the state in markets and the relationship between democracy and development.

PSC 352 International Law 3 IR  
Fundamental principles and recognized rules that make up international law concerning conduct of nations. Protection of nationals abroad, jurisdiction in territorial waters and on high seas, rights and duties of diplomats and consuls, and the law of treaties.

PSC 353 International Organization 3 Y  
Causes and consequences of collective actions taken by state, intergovernmental, and transnational nongovernmental individual and collective actors. May include global and regional level issues of (human) security, economic and social development, environmental protection, and resource management.

PSC 354 Human Rights and Global Affairs 3 IR  
Human rights are today a focal point of rhetorical contestation among states, intergovernmental organizations, and transnational networks. This seminar surveys the opportunities and limits of human rights language in promoting social and political change.

PSC 355 International Political Economy 3 IR  
Institutions and politics of international economic relations. Trade, investment, macro-economic policy coordination, economic development, global resource issues, and the causes and consequences of global economic integration.

PSC 356 Political Conflict 3 Y  
Theory and practice of political conflict and peacemaking. Issues may include class, race, gender and ethnicity, war, terrorism, and protest.

PSC 357 U.S. Foreign Policy 3 Y  
Diplomacy of the United States toward major areas or powers, i.e., Latin America, Far East, and the Soviet Union. National defense, trade, and international organization.

PSC 358 Latin American International Relations 3 Y  
Crosslisted with: LAS 358  
Examines Organization of American States and other regional institutions. Considers how regional cooperation efforts have been shaped by political, economic, and cultural diversity of the countries in the region and by the changing global context.

PSC 359 Foreign Policymaking 3 IR  
How governments and intergovernmental organizations make foreign policy. Formulation of policy, selection among policy strategies, implementation, and evaluation of policy outcomes. Contemporary foreign policies.

PSC 361 Politics in the Cyber-Age 3 Y  
The impact of the information technology revolution on contemporary domestic and global political systems.

PSC 362 Religion, Identity and Power 3  
Crosslisted with: REL 355, SOC 362  
Examines ascendancy of religious movements; prominence of religious ideas; secularization and religion as a political force; conceptual and historical issues in relation to religious ideas and movements, including various Islamic revivals and the Christian right. Offered in London and Madrid only.

PSC 363 Ethics and International Relations 3 O  
Crosslisted with: PHI 363  
The role of ethical concerns, imperatives, and restraints in international relations. Includes realism, just war theory, the ethics of nuclear deterrence, and other topics at the discretion of the instructor.

PSC 364 African International Relations 3 Y  
Crosslisted with: AAS 364  
The place of Africans in the international system; specific issues emanating from the decolonization process. Issues of militarism, humanitarianism, peacekeeping, and genocide; challenges of globalization.

PSC 365 International Political Economy of the Third World 3 Y  
Crosslisted with: AAS 365  
Political and economic problems developing countries face in international economic relations, attempts to solve them. Discusses the making of the international system, the "third world," globalization, trade, debt, multinational corporations, multilateral lending agencies (IMF, World Bank).

PSC 366 Representations of the Middle East 3 IR

Crosslisted with: MES 366

The politics of "gazing" and cultural imagination through critical analysis of how the mass media articulates, transmits, promotes and legitimizes knowledge and information about the Middle East.

PSC 367 Oil, Water and War 3 IR

Crosslisted with: MES 367

Examines current level of knowledge about historical connections among war and the resources of petroleum and fresh water. Also looks at how alternative claims about these goods will be expressed in the future.

PSC 368 Islam and the West 3 Y

Crosslisted with: HST 368, MES 368

Topics include globalization and interdependency of faiths, the "clash of civilizations", relations between religion and state in Islam and Christianity and whether it is possible to separate the world into monolithic entities "Islam" and "West". Offered in London only.

PSC 369 Global Migration 3 IR

How should local communities, national governments, and international institutions respond to economic migrants and refugees? Are their policies effective? These questions will be explored through historical and contemporary perspectives from around the world.

PSC 371 Democratic Theory and Politics 3 IR

Democracy as a political concept and political process, in a comparative context. Some critiques and challenges facing democratic theory and practice.

PSC 372 Marxist Theory 3 IR

Fundamentals of Marxism through the original writings of Marx and Engels. Several interpretations of the various facets of Marxist theory, as developed by social democrats, Leninists, and other socialist thinkers.

PSC 373 Political Philosophy: The Social Contract Tradition and its Critics 3 Y

Crosslisted with: PHI 317

Political obligation in the writings of the three major social contract theorists, Hobbes, Locke, and Rousseau. Additional reading from their critics such as Burke, Mill, and Marx.

PSC 374 Law and Society 3 IR

Interaction of law with social values, customs, and organization. Relationship between a society's law and its broader environment.

PSC 375 Philosophy of Law 3 IR

Crosslisted with: PHI 397

Central issues in the philosophy of law such as the nature of law and obligation to obey the law; justification of punishment and of state restrictions on individual liberties; justice and the law.

PSC 376 Revolution and Civil Violence 3 IR

Causes and consequences of revolutions.

Political significance of riots. Psychology of revolutionary participation. Changing historical patterns of political violence. Western and non-Western forms of civil strife.

PSC 377 Religion and Politics 3 IR

Reciprocal relations between religious groups and political systems, especially in the United States. Religious groups as the objects of policy decisions, as sources of governmental legitimacy, and as agents of political and social change.

PSC 378 Power and Identity 3 Y

Examines classic and contemporary theories of identity and their manifestation in political practice. Also examines basic theories about how identities are constructed and their meaning/import. Covers race, ethnicity, sexuality, gender, and foreignness.

PSC 379 American Slavery and the Holocaust 3 IR

Crosslisted with: JSP 379, PHI 379

An in-depth study of the normative structure of both American Slavery and the Holocaust, focusing upon the ways in which each institution conceived of its victims and the character of the moral climate that prevailed in each case.

PSC 381 Political Fiction and Film 3 IR

The powers of fictional narrative to depict and explain politics. Content varies. Possible themes include comparison of religion, science, and politics; totalitarian movements; political assassinations; political morality and power.

PSC 382 Contemporary Political Philosophy 3 Y

Crosslisted with: PHI 417

Contemporary contractualist, rights-based, and communitarian theories of social justice.

PSC 383 Civil Society and Democracy 3 IR

Understanding the politics that occurs between individual citizens and citizens groups. Is civic trust diminishing? How civil society functions in new democracies, the impact of suburbanization, religion, and consumerism.

PSC 384 Sexuality and the Law 3 E

Crosslisted with: QSX 384

Examines politically significant legal debates regarding gender and sexuality. Issues covered may include privacy rights, discrimination on the basis of sexual orientation and gender identity, family law and parental rights, and same-sex marriage.

PSC 385 Rationality and Politics 3 IR

Introduction to the concept of technical rationality and its role in contemporary political science.

PSC 386 Gender, Militarism, and War 3 IR

Crosslisted with: SOC 354, WGS 354

Militarism and war are examined by focusing on their relationship to gender. What does gender have to do with war? How do masculinity and femininity along with race work to create soldiers and enemies?

PSC 387 Ethnic Conflict 3 Y

Examines ethnicity and its effects on politics. Engages the concept of ethnicity, how it structures politics and sparks conflict, and what political tools exist to manage these conflicts.

PSC 388 Politics of Globalization 3 Y

Examines the causes and consequences of globalization. In particular we explore who wins and who loses from political and economic globalization.

PSC 389 Politics of India 3 Y

Crosslisted with: SAS 389

Introduction to politics in post-independence India. Surveys India's party system, institutional structures, political practices and socio-economic policies. Examines the reasons for India's democratic stability despite high levels of illiteracy, poverty and ethnic heterogeneity.

PSC 391 Revolutions in the Middle East 3 IR

Crosslisted with: MES 391

A comparative study of revolutions in the Middle East in terms of causes, processes and outcomes.

PSC 392 Sociology of Islamic Fundamentalism 3 IR

Crosslisted with: MES 392

A study of the social origins and political outcomes of Islamic Fundamentalism.

PSC 393 Middle Eastern Political Systems 3 IR

Crosslisted with: MES 393

Study of Middle Eastern political systems in terms of cleavages and crisis.

PSC 394 History of Islamic Political Thought 3 IR

Crosslisted with: MES 394

A study of Islamic political and social attitudes pertaining to contemporary issues.

PSC 395 Democratization in the Muslim World 3 IR

Crosslisted with: MES 395

Reasons for and dynamics of democratization in some Muslim countries.

PSC 396 European Integration 3 Y

Crosslisted with: GEO 396

Focuses on the origins, nature, and likely future course of the European Union. More generally, examines five long-range challenges facing contemporary Europe: Demographic decline; globalization; Civic Integration; Great Power Rivalry; and Sustainable Development.

PSC 397 Realism and Power Politics in International Relations 3 Y

Realism lies at the core of American international relations. It has been the dominant approach to national security issues since the 1940s. The course covers several important realist theories, as well as critiques and applications.

PSC 398 How the United States Became a Great Power 3 Y

Between 1785 and 1900, the USA grew into a great power. This course investigates the foreign relations of the USA during this period. Which international relation theories best explain America's relationship with the European great powers?

PSC 399 God in Political Theory 3 IR

Crosslisted with: PHI 319, REL 371

An exploration of the key approaches to the relationship between the idea of God and religion and politics in political theory and philosophy.

PSC 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PSC 401 Government and Politics in Great Britain 3 S

Political geography, constitutional principles, governmental institutions, and political behavior in Great Britain. Comparisons with other western European political systems. Offered only in London.

PSC 402 Government and Politics in Italy 3 S

Political geography, constitutional principles, governmental institutions, and political behavior in Italy. Comparisons with other western European political systems. Offered only in Florence.

PSC 403 Government and Politics in France 3 S

Political geography, constitutional principles, governmental institutions, and political behavior in France. Comparisons with other western European political systems. Offered only in Strasbourg.

PSC 404 Government and Politics in Spain 3 S

Political geography, constitutional principles, governmental institutions, and political behavior in Spain. Comparisons with other western European political systems. Offered only in Madrid.

PSC 405 Politics of the European Union 3

Politics of European integration from a variety of perspectives: theoretical, historical, institutional, and policy-making. Fundamental post-war political process in modern-day Europe. Offered regularly through SU Abroad.

PSC 406 Citizenship from Modernity to Globalization 3

Crosslisted with: PHI 406

Offered only in Florence. Citizenship as a major crossroads in European political thought: key thinkers; permutations throughout European history; impact of globalization and European unification on concepts of citizenship, liberty, and justice.

PSC 407 Political Integration and Disintegration in Western Europe 3 IR

Crosslisted with: SOS 407

Origins of the modern territorial states of western Europe. Growth of supranational institutions, such as the European Economic Community, and their impact on European economic and political development. Offered only in Florence.

PSC 408 Comparative Social Movements 3 IR

Crosslisted with: SOS 408

Origin and policy impact of contemporary and historical European movements for social and political change. Labor movements, Eurocommunism, feminism, national socialism, fascism, and peace movements. Offered only in Florence.

PSC 409 The European Union 3 Y

Creation and current workings of the European Union. The relationship between the member states and issues such as a United States of Europe. Mandatory trip to Brussels (EU Commission, Parliament, and U.S. EU delegation). Offered in London only.

PSC 411 Senior Seminars 3 IR

Integrates student coursework by providing in-depth analysis of a particular topic. Recommended seminar choice is one in a subfield of the discipline in which the student has some prior preparation.

PSC 412 Global Governance: The United Nations System 3 Y

Crosslisted with: IRP 412

The theory and practice of global governance and international diplomacy through an in-depth study of the United Nations system. Critique readings and discuss current UN-related events. Fulfills the IR capstone for International Law and Organizations (ILO). Permission of instructor. PREREQ: PSC 124 OR 139.

PSC 413 Identity and Difference 3 Y

Crosslisted with: PHI 413, WGS 413

Interdisciplinary approach to examine concepts of identity and difference, challenges notions of subjectivity, nation and gender. Philosophical, political, and gender-related dimensions explored. Offered only in Florence.

PSC 414 European Identity Seminar 2 S  
Eleven-day interdisciplinary field studies seminar explores the multi-layered cultural and political identities in contemporary Europe, their overlapping (and at times, contradictory nature), and their effect on political and social developments. Offered in Strasbourg only. R1, 4 credits maximum

PSC 418 Comparative Public Policy in Practice 3 Y  
Crosslisted with: PAF 418  
Students gain inside knowledge of London through assignment to an organization related to a student's major and interests. Weekly lectures and seminars explore the wider social and political context in which the organizations are operating. Offered in London only.

PSC 421 Contemporary Central and Eastern Europe 3 Y  
Crosslisted with: HST 411  
Offered only in Strasbourg. This course is designed to help students grasp the overall nature of contemporary Eastern and Central Europe, with emphasis on the breakup of the Soviet Union, and challenges of democratization and of EU unification.

PSC 422 Understanding 20th Century Spain 3 S  
Crosslisted with: HST 412  
Offered only in Madrid. Course begins with War of Cuba and ends with Spain's new role in EU, NATO and UN. Particular focus on the rapid changes within Spain during this period and how these were accomplished.

PSC 424 Dictatorships, Human Rights, and Historical Memory in the Southern Cone 3 S  
Crosslisted with: HST 424, IRP 424, LAS 424  
Offered only in Santiago. The time period (1940-present) and its significance and contributions to the configuration of social, political and economic aspects of Chile today. Relies on primary sources, comparisons within the Southern Cone, and a focus on US role and influence during this period.

PSC 425 Hong Kong in the World Political Economy 3 S  
Offered only in Hong Kong. Role of Hong Kong in world political economy since creation by British after Opium Wars, to position as leading export economy and its retrocession to China in 1997.

PSC 427 Policy Seminar/Contemporary Europe 3 S  
Offered only in Strasbourg. Course gives a coherent contemporary picture of Europe in political/social/economic area and position in the world, with particular emphasis on the European Union.

PSC 428 Contemporary Issues in Chile and Latin America 3 S  
Crosslisted with: HST 406, IRP 334, LAS 334, SPA 334  
Offered only in Santiago. This seminar features in-situ lectures and activities in Chile, Argentina and Uruguay introducing important political, sociological and environmental issues in the Southern Cone region.

PSC 429 European Human Rights 3 S  
Offered only in Strasbourg. Introduction to current European human rights law. Through study of European Convention on Human Rights, students learn about culture/morals/values of peoples of Europe.

PSC 431 China in Transition 3 S  
Offered only in Beijing. Seminar examines the unprecedented, multi-faceted transitional changes occurring in China since the late 1970s. Impact of reforms on China's external relations.

PSC 432 The Pale and Beyond 3 S  
Crosslisted with: SOC 312  
Field studies seminar based in Dublin and Belfast, explores whether a shared sense of being Irish exists despite the struggle and separation between the largely Catholic south and the largely

PSC 441 Europe and International Security Issues 3 Y  
Crosslisted with: HST 441  
Offered only in Strasbourg. Historical evolution of the concept of international security within the framework of European security-related institutions and the place of Europe in the context of new security challenges.

PSC 442 Democratization in East Asia 3 Y  
Offered only in Hong Kong. Examines the efforts at democratization in East Asia, including such early efforts as the May Fourth Movement in China (1920s-1930s) and the Taisho Democracy in Japan (1920s). Comparisons are made with current situations in Taiwan, Hong Kong and South Korea.

PSC 443 Southeast Asia in the World Political Economy 3 Y  
Crosslisted with: GEO 443, INB 443, IRP 443  
Offered only in Hong Kong. Explores the historical and contemporary forces that have shaped the South East Asian region and its unique cultural, social, political and economic characteristics.

PSC 444 Culture, Business and Political Economics in East Asia 3 Y  
Crosslisted with: HST 444, INB 444, IRP 444  
Offered only in Hong Kong. Examines the historical and contemporary forces that shape the cultural, social and economic institutions in East Asia and how these institutions affect one another.

PSC 445 Contemporary British Politics and the Modern World 3 S  
Crosslisted with: HST 445  
Offered only in London. British political system and the historical factors shaping it, as well as Britain's role in creating the modern world and its place in the world today.

PSC 450 Undergraduate Research Program 1-4 S  
R

PSC 452 Italy: Past, Present and Future Challenges 3 S  
Crosslisted with: HST 452  
Offered only in Florence. Italian society and politics from unification to present. Topics include role of the family, emigration and immigration, stereotypes and regional identities, processes and components of Italian society and culture. Analysis of current situation and future challenges.

PSC 453 Twentieth Century Europe 3  
Crosslisted with: HST 453  
Politics, society, war, and peace in Europe, 1919-1992. Nazi Germany, WW II, the Cold War, post-war reconstruction, social and economic transformations, and the revolutions of 1989 in Eastern Europe. Offered only in Florence.

PSC 456 Religion and Conflicts in Contemporary Europe 3 Y  
Crosslisted with: REL 356  
Offered only in Strasbourg. Examines continent's long history of religious conflict, especially ways in which local and global religious tensions have developed in recent years.

PSC 458 Contemporary Issues in Turkey 3 S  
Crosslisted with: IRP 458, SOC 458  
Offered only in Istanbul. Key political and social issues in contemporary Turkey. Democratization; relationship between secularism, the role of the military and Islam in political life; foreign policy including Turkish-US relations; nationalism, minorities, gender, human rights. Additional work required of graduate students.

PSC 462 Globalization Development and Environment 3 Y  
Crosslisted with: ECN 362  
Offered only in London. Differing perspectives on changing global economy and nature of modern state. Key ideas regarding development through experiences of developing countries in Asia and Africa.

PSC 470 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

PSC 471 Internships: International, National, State 3 S  
Internships spent off campus in Washington, a state capitol, or an international or foreign organization. Proposal required; faculty sponsor must be arranged. May be counted toward major or minor by petition.

PSC 473 London Seminar 6 Y  
British political issues and institutions combined with interviews with leaders of Parliament, the national administration, political parties, the news media, and interest groups. Five weeks in London, England, during the summer.

PSC 489 Readings in Political Science (Honors) 1-6 S  
Directed tutorial-type program of readings in selected aspects of political science.

PSC 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

PSC 495 Distinction Thesis Seminar in Political Science I 3 Y  
Individual research work in conjunction with seminar participation guided by faculty seminar instructor and individual mentors. Defining thesis projects. Senior political science students only. Permission of instructor.

PSC 496 Distinction Thesis Seminar in Political Science II 3 Y  
Thesis students present ongoing research, constructively engaging with other thesis writers, and working with faculty mentor to complete research. Individual research work in conjunction with seminar participation. Senior political science students only. Permission of instructor.

PSC 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

PSC 500 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

#### South Asian Studies

SAS 101 Hindi/Urdu I 4 Y  
Crosslisted with: HIN 101  
Introductory proficiency-based course which prepares students to understand, speak, read, and write in culturally authentic contexts. Activities are conducted in Hindi/Urdu. Students cannot enroll in HIN101 after successfully completing HIN 102, HIN 201, or HIN 202 or higher.

SAS 102 Hindi/Urdu II 4 Y  
Crosslisted with: HIN 102  
Continuing proficiency-based course which develops communicative abilities in speaking, listening, reading, and writing in culturally authentic contexts. Activities are conducted in Hindi/Urdu. Students cannot enroll in ARB 102 after successfully completing HIN 201, HIN 202 or higher.  
PREREQ: HIN 101.

SAS 123 Religious Auto/Biography 3 IR  
Crosslisted with: REL 123  
A cross-cultural exploration of religious autobiographies. Understanding multiple dimensions of religious life through narratives of the self, the sacred, and society.

SAS 165 Discovering Islam 3 Y  
Crosslisted with: MES 165, REL 165  
Islam as a faith and a civilization. Understanding its origins, beliefs, rituals, and the historical development of its intellectual traditions in the pre-modern and modern eras, and its geographic, cultural and theological diversity today.

SAS 185 Hinduism 3 Y  
Crosslisted with: REL 185  
Religious life of contemporary Hindus in India: gods, goddesses, and other divines; worship; sectarian movements; and rituals in the home, at temples, and at other holy sites.

SAS 186 Buddhism 3 Y  
Crosslisted with: REL 186  
Buddhism as a world religion: its origin in India, its spread to other parts of Asia, and consequent changes in doctrine and practice through the ages.

SAS 201 Hindi/Urdu III 4 Y  
Crosslisted with: HIN 201  
Continuing proficiency-based course which refines and expands previously acquired linguistic skills in culturally authentic contexts. Activities are conducted in Hindi/Urdu. Students cannot enroll in HIN 201 after successfully completing HIN 202 or higher  
PREREQ: HIN 102.

SAS 202 Hindi/Urdu IV 4 Y  
Crosslisted with: HIN 202  
Continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. Incorporates reading, discussing, and analyzing texts as a basis for the expression and interpretation of meaning. Conducted in Hindi/Urdu. Students cannot enroll in HIN 202 after successfully completing a course higher than HIN 202.  
PREREQ: HIN 201.

SAS 283 India's Religious Worlds 3 O  
Crosslisted with: REL 283  
Inter-secting religious worlds of Hindus, Muslims, Sikhs, Jains, and Christians in modern India; focus on cosmology and morality in interaction with ritual practices, religious narratives, social life, media, and politics.

SAS 301 Contemporary Asian Americans 3 Y  
Crosslisted with: SOC 301  
An overview of the Asian American experience.

SAS 324 Modern South Asian Cultures 3 O

Crosslisted with: ANT 324, WGS 324  
Societies of India, Pakistan, Bangladesh, and Sri Lanka. Social organization, economic and political structures, religions and world view, survey of languages, the arts. Transition and modernization, rural and urban problems.

SAS 328 Ancient and Medieval India 3 Y

Crosslisted with: HST 328  
Formation of traditional Indian kinship, religion, philosophy, and culture. Vedic society and the rise of Buddhism. Medieval Hindu kingdoms. Expansion and the legacy of Islam. Rise and disintegration of the Mughal empire.

SAS 329 Making of Modern India 3 Y

Crosslisted with: HST 329  
British colonial expansion in India. Emergence of nationalism and related movements of religious, social, and cultural reform. Gandhi and non-violence. Struggle for independence and the politics of gender, class, caste, and religious community.

SAS 364 Enchanting Words: Muslim Poets, Singers and Storytellers 3 Y

Crosslisted with: MES 364, REL 364  
Understand the power of words and language in Muslim cultures expressed in oral and literary genres including poetry, humor, fables, folksongs and travel journals. Explore key themes such as virtue, reality, divine and human nature.

SAS 367 God and Beauty in Islamic Art 3 Y

Crosslisted with: MES 365, REL 367  
Expressions of beauty, creativity and faith in Islamic calligraphy, ceramics, textiles, architecture, miniatures and music. Unity and diversity of the visual and performing arts of Muslims in different periods, cultures and regions.

SAS 375 British Empire 3 Y

Crosslisted with: HST 375  
Seminar on expansion of the British Empire (emphasis on India and Africa) in the 18th and 19th centuries. Explores histories of conquest, administration and imperial policy, and the ideologies of imperialism and colonialism.

SAS 384 Goddesses, Women and Power in Hinduism 3 O

Crosslisted with: REL 384, WGS 384  
Interrelationship of power as female and female power in Hindu cosmology, mythology, and society. Complexities of mythic, domestic, and economic gender hierarchies.

SAS 385 Music and Dance of India 3 O

Crosslisted with: HOM 384  
Selected music and dance traditions of India in their cultural, historical, and performative contexts, representing classical, devotional, folk, tribal, and popular arts. Performance as a window into Indian culture, society, and modernization.

SAS 386 Sounds of the Silk Road 3 IR

Crosslisted with: HOM 386, MES 386  
The soundscapes of the overland Silk Road as a window into history, commerce, migration, social life, values, faith, tolerance and conflict. Case studies from Turkish, Arabic, Persian, Central Asia, and Southwest Asia musics.

SAS 389 Politics of India 3 Y

Crosslisted with: PSC 389  
Introduction to politics in post-independence India. Surveys India's party system, institutional structures, political practices and socio-economic policies. Examines the reasons for India's democratic stability despite high levels of illiteracy, poverty and ethnic heterogeneity.

SAS 394 Partition of India in Film 3 Y

Crosslisted with: HST 394  
Explores the partition of India in 1947 through South Asian films.

SAS 396 Art and Architecture of India 3 Y

Crosslisted with: ARC 331, HOA 396  
Art and architecture of the Indian subcontinent from the Indus Valley Civilization to the present.

SAS 400 Selected Topics: South Asian Studies 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SAS 421 Gender & Sexuality in South Asia 3 O

Crosslisted with: ANT 421; Double Numbered with: SAS 622  
Seminar examines gender and sexuality in South Asia through ethnographies and films. Topics explored relating to gender and sexuality include: colonialism; nationalism; development; globalization; kinship; the life cycle; caste and class; religion; same-sex/"third sex" identities. Additional work required of graduate students.

SAS 426 Cultures and Politics of Afghanistan and Pakistan 3 E

Crosslisted with: ANT 426, IRP 426; Double Numbered with: SAS 626  
Introduction to Afghanistan and Pakistan, recent histories, cultures, current politics. Covers geography, religious systems, gender roles, economic systems, foreign policy issues, refugees, migration. Additional work required of graduate students.

SAS 465 Beyond the Veil: Gender Politics in Islam 3 Y

Crosslisted with: MES 465, REL 465, WGS 465  
Politics of gender, religious identities, and resistance in the Islamic world. Gender scripts in Qur'anic scripture and Shariah laws. Contemporary realities of Muslim women living in different parts of the world. Additional work required of graduate students.

## Sociology

SOC 101 Introduction to Sociology 3 S  
Principal concepts, methods, and findings in sociology. Societal structures, processes, institutions, and social roles from both macro- and microanalytic human behavior perspectives.

SOC 102 Social Problems 3 S

Application of sociological theory and methods to identification, description, and analysis of contemporary social problems. Critique and analysis of alternative strategies for social change.

SOC 200 Selected Topics 1-3 S

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**SOC 230 Intergroup Dialogue 3**

Crosslisted with: WGS 230

Guided intergroup communication skills. Cycle of socialization; social identities, and social structures that create and maintain inequality; power of dynamic of racism, sexism, and other systems of oppression. Students explore conflict and enact collaboration to deepen understanding. R1, 6 credits maximum

**SOC 248 Ethnic Inequalities and Intergroup Relations 3 S**

Crosslisted with: WGS 248

Identification of individuals and groups by self and others as members of ethnic categories. Consequences of ethnic identifications for individual, group, and societal interaction. Emphasizing ethnic inequalities, group interactions, social movements and change, racism, prejudice, and discrimination.

**SOC 254 Comparative Study of American Ethnic Communities 3 SI**

Crosslisted with: AAS 254

Variety of ethnic communities in American society. Comparative analysis of similarities and uniqueness. Issues of group conflict, diversity, and unity.

**SOC 281 Sociology of Families 3 S**

Crosslisted with: WGS 281

Families and their connections to other social and economic institutions. Diversity of family forms and experiences. Formation and dissolution of relationships. Trends and changes.

**SOC 300 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**SOC 301 Contemporary Asian Americans 3 Y**

Crosslisted with: SAS 301

An overview of the Asian American experience.

**SOC 305 Sociology of Sex and Gender 3 S**

Crosslisted with: WGS 305

Social forces shaping women's and men's lives in contemporary societies. Changing gender expectations. Intersections of gender with race and ethnicity, class, and age. Social movements for women's and men's liberation.

**SOC 306 Sexuality in Spain 3 S**

Crosslisted with: QSX 306, WGS 306

Offered only in Madrid. Explores important transformations in Spaniards' concepts of sexuality and gender through readings, film screenings and observing certain urban areas in Madrid.

**SOC 309 Race, Gender and Sexuality in African Diaspora 3 S**

Crosslisted with: AAS 309, WGS 309

To introduce students to the reality of how racism informs the common sense understanding of Black sexuality.

**SOC 312 The Pale and Beyond 3 IR**

Crosslisted with: PSC 432

Field studies seminar based in Dublin and Belfast, explores whether a shared sense of being Irish exists despite the struggle and separation between the largely Catholic south and the largely

**SOC 318 Introduction to Research 3 S**

Techniques and problems of research in sociology. Research design, measurement, and data collection using surveys and other techniques. Computer analysis skills for social science data. Research project.

**SOC 319 Qualitative Methods in Sociology 3 S**

Crosslisted with: WGS 317

Field research methods including participant observation, unstructured interviewing, life histories, and case studies. Preparation and analysis of fieldnotes and interview data.

**SOC 334 Criminal Justice 3 Y**

Organization of criminal justice system in the United States and relations between its parts. Ideal versus actual roles of police, courts, and corrections in maintaining social control.

**SOC 335 Political Sociology 3 IR**

Double Numbered with: SOC 635

Relationships between society and politics. Impacts of individuals, groups, parties, and institutions on state power in global perspective. Additional work required of graduate students.

**SOC 343 The Deviance Process 3 Y**

Social processes that define behaviors or people as "deviant". Theories of anomic and nonconforming behavior. Individual, interpersonal, and structural consequences of labeling and exclusion.

**SOC 345 Spanish Society and Pop Culture 3 S**

Crosslisted with: ANT 355

Offered only in Madrid. Explores what is considered important, good, and fashionable in Spain today and how these values relate to historical developments as well as foreign influences.

PREREQ: SPA 201.

**SOC 351 Urban Poverty 3 IR**

Analysis of the causes, manifestations and responses to urban poverty in the U.S. Focus on welfare reform, the low-wage labor market, and housing and homelessness. Includes attention to poverty in local context of Syracuse.

**SOC 353 Sociology of the African American Experience 3 E**

Crosslisted with: AAS 353

Theory and research of African American sociologists in the historical, social, and political context of American sociology. Relation of their work to the African American experience and its reception and impact in the public policy arena.

**SOC 354 Gender, Militarism, and War 3 IR**

Crosslisted with: PSC 386, WGS 354

Militarism and war are examined by focusing on their relationship to gender. What does gender have to do with war? How do masculinity and femininity along with race work to create soldiers and enemies?

**SOC 355 Sociology-of Health and Illness 3 Y**

Crosslisted with: WGS 355

Conceptions of health and illness in society. The nature and organization of health professions and health delivery systems. Social aspects of health related behavior.

**SOC 357 Sociology of American Business 3 IR**

Relationship between business and society. Large corporation, small business and "franchise capitalism," merchandising and social change, social bases of investment and entrepreneurship, and business and politics.

SOC 361 Youth, Schooling and Popular Culture 3 Y

Crosslisted with: CFE 362, WGS 362

Positioned where school, media, and youth cultures intersect. How schools and media represent "good" and "bad" youth, and how youth negotiate schools and popular cultures. Includes theories of popular culture and adolescence. Additional work required of graduate students.

SOC 362 Religion, Identity and Power 3

Crosslisted with: PSC 362, REL 355

Examines ascendancy of religious movements; prominence of religious ideas; secularization and religion as a political force; conceptual and historical issues in relation to religious ideas and movements, including various Islamic revivals and the Christian right. Offered in London and Madrid only.

SOC 363 Urban Sociology 3 Y

Influence of the urban way of life. Ecological and population structure and changes in the modern composite city and metropolitan region. Urban planning in relation to economic patterns, family, education, government, recreation, and religion.

SOC 364 Aging and Society 3 Y

Crosslisted with: WGS 364; Double Numbered with: SOC 664

Current policy issues in an aging society. Health care, end-of-life, social security, productive aging, and generational equity. Special problems facing elderly women and minorities.

SOC 367 Sociology of Sport 3 S

Sport and race. Class and gender. College sports. Interrelationships among sport, media, and business/industry.

SOC 373 Sociology of Work 3 IR

Meaning and significance of work for individuals and societies. Changing nature of work. Structures of work and the labor force. Occupational recruitment, socialization, mobility, and discrimination.

SOC 377 Class, Status, and Power 3 IR

Double Numbered with: SOC 677

Structures, causes, and consequences of socio-economic inequalities in modern societies. Poverty and wealth, social mobility, and the persistence of inequality. Comparison and assessment of theories of social stratification.

SOC 397 Criminology 3 Y

Nature and significance of crime. Historical and modern explanations of crime. Varieties of crime. Issues in measuring crime and assessing its effects. Evaluation of crime control strategies.

SOC 400 Selected Topics 1-3 S

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SOC 406 Sociological Theory 3 S

Introduction to classic and contemporary theory in sociology. Relevance of theory to research and analysis of social issues.

SOC 409 Sociology of the Globalization of Music 3 Y

Intercultural course introducing the study of traditional and modern non-western music in cultural context. Focus on non-western urban, hybridized forms of popular music. Course fee covers tickets and related costs. Offered in London only.

SOC 410 Seminar on Social Change 3 IR

Crosslisted with: AAS 410

Changes in African American communities or in the circumstances of African Americans within a particular institutional arena. Movements to promote change and obstacles to change. Substantive focus varies. R

SOC 412 Multicultural London 3 Y

Political, social and economic patterns of urban development; recent debates about multicultural cities; development of urbanism; political strategies; ethnic pluralism in British society; issues of identity, race, ethnicity and religion. Mandatory site visits. Offered in London only.

SOC 413 There Goes the Neighborhood:

US Residential Segregation 3 SI

Crosslisted with: AAS 413

Chronicles patterns of racial residential segregation in the US by examining the methods that maintain racially distinct neighborhoods. Explores link between segregation and education, social mobility, health, and mortality.

SOC 415 Global Cities 3 E

Sociological perspectives on city character and development in the light of expanding urbanization on an international scale: demographic dynamics and immigration, economic growth, politics and governance, and other areas including infrastructure and environment connections and culture.

SOC 416 Race, Crime and Punishment 3 SI

Crosslisted with: AAS 416

The multiple and complex relationships between race, the power to punish, and crime control policies and practice. Exploration of the theories of crime and punishment from classic to postmodern.

SOC 417 Sociology of Disaster 3 S

Social effects of disaster from macro and micro levels of analyses. How social structures, groups and institutions react to the loss of social function as a result of disaster.

SOC 421 Population Issues 3 IR

Human mortality, fertility, and migration and how they affect social life. Life expectancy, low fertility, health disparities, family planning, and urbanization. United States and cross-national comparisons.

SOC 422 Work and Family in the 21st Century 3 S

Crosslisted with: CFS 422, WGS 422

Examines the social, demographic, and economic forces that are reshaping the boundaries between family and work.

SOC 423 Technology, Science and Society 3 O

How technology and science shape and re-shape our experiences of 'self' and 'body' and our visions of 'nature' explored through history, theory, science fiction, art, and our sociological imaginations.

SOC 424 Representations of Ability & Disability 3 E

Crosslisted with: DSP 424

Representations of disability in autobiographical accounts and professional narratives, and implications of these representations for educational practice and policy.

SOC 425 Feminist Organizations 3 Y

Crosslisted with: WGS 425; Double Numbered with: SOC 625

Women's movement history in the United States and internationally. Successes and problems of organizations built by feminist activism. Implications for a new generation of feminist (and other) activism. Additional work required of graduate students.

**SOC 426 Social Issues and Deliberative Democracy 3 IR**

Examination of social issues and public policy through the process of public deliberation. Class projects involving community forums. Social research, critique and analysis of public policy and social change.

**SOC 427 New York City: Black Women Domestic Workers 3 Y**

Crosslisted with: AAS 427, WGS 427; Double Numbered with: SOC 627

Historical understanding of Black women's engagement in paid domestic work in the United States, increasing need for domestic workers in the ever-changing economy and family, and the social construction of Black women as "ideal" domestic workers.

**SOC 428 Culture, Sub-culture and Style 3 S**

Offered only in London. Examines cultural change, debates about culture, and how cultural phenomena are related to the societies from which they emerge.

**SOC 429 Politics, Gender and Race in the Contemporary Spanish Short Story 3 S**

Crosslisted with: SPA 429, WGS 429

Offered only in Madrid. Overview of the Spanish short story from late 19th century to present. Themes of political and social rifts of Spanish society in the 20th century, female representations, and images of exclusion. PREREQ: SPA 202 OR (SPA 300 OR ABOVE).

**SOC 432 Gender and Disability 3 Y**

Crosslisted with: DSP 432, WGS 432

This course will investigate the intersection of gender and disability and how it impacts such issues as representation/self-representation, art and poetry, illness, education, sexuality, reproduction and motherhood, and caring work.

**SOC 433 Race, Class, and Gender 3 Y**

Crosslisted with: WGS 433

Intersection of oppression and privilege via socially constructed categories of "race," "class," and "gender." Racism, sexism, institutional authority, and multiculturalism.

**SOC 434 Globalization and Social Change 3 IR**

How globalization is reshaping people's lives in the US and other societies. Causes, directions, consequences. Linking and standardization of patterns of consumption, culture, and production around the world.

**SOC 435 Sexual Politics 3 IR**

Crosslisted with: WGS 435

Social construction of sex and sexuality. Formation and organization of sexual communities, of sexuality as a form of social control. Social issues related to sexuality.

**SOC 438 Disability and Popular Culture 3 Y**

Crosslisted with: DSP 438

Explore representations of disability through the analysis of books, movies, television, cartoons, and journalism. It will examine how disability is portrayed by people with and without disabilities, and discuss influences on public perceptions of disability.

**SOC 440 Sociology of Disability 3 IR**

Crosslisted with: DSP 440

A theoretical understanding of disability through the lens of sociology and that of disability studies and demonstrates how cultural institutions shape conceptions of disability in society.

**SOC 441 Federal Indian Policy and Native American Identity 3 IR**

Crosslisted with: NAT 441

Shifts in Federal Indian policy and the social construction of American Indian identity. Identity struggles and identity politics in relation to blood and descent, community, land and sovereignty.

**SOC 444 Contemporary Native American Movements 3 IR**

Crosslisted with: NAT 444

Sociological analysis of Native American movements from 1960s to the present. National and regional movements in relation to jurisdictional issues and human rights. Red Power and pan-Indian movements are considered.

**SOC 445 The Caribbean: Sex Workers, Transnational Capital, and Tourism 3 Y**

Crosslisted with: AAS 445, WGS 445; Double Numbered with: SOC 645

A political economy approach to educating students about the human and capital costs of tourism to the Caribbean. The integral relationship between sex work and Caribbean tourism exposes the region's development that has resulted in its current configuration.

**SOC 446 The Social Impact of the Internet 3 IR**

Double Numbered with: SOC 646

Sociological implications of instantaneous communication, online publishing, identities and interactions, communities transcending geographic borders, and openly available information and opinion. Additional work required of graduate students. Offered only online.

**SOC 447 Social Change and Conflict in Modern China 3 IR**

Social and economic transformations in China in terms of social classes, cultural patterns, urban change, family patterns, ethnic tensions, and struggles over political rights. Questions of Taiwan and Tibet. How China's development affects the U.S.

**SOC 448 The Dynamics of Prejudice and Discrimination 3 IR**

Double Numbered with: SOC 648

Research and theory of prejudice and discrimination: inclusion/exclusion of individuals/social groups; classification of in/out groups; contributing roles of processes (difference, power, labeling, silencing). Recommended for upper-level students with some social science background and other coursework dealing with social inequities.

**SOC 449 The Sociology of Evil 3 IR**

Double Numbered with: SOC 649

Social conditions and processes allowing systematic dehumanization; perspectives of victim, perpetrator, audience, possibility of reconciliation. Extreme examples of evil; subtle ways of dehumanizing the other. Ethnic cleansing, international trafficking, terrorism. Additional work required of graduate students. Offered only online.

**SOC 454 Family and Gender in Contemporary Italy 3**

Crosslisted with: HST 454, WGS 454

Family structures and gender relations in Italy from the Unification to the present. Offered only in Florence.

**SOC 456 LGBT Studies in Sociology 3 IR**

Crosslisted with: QSX 456, WGS 456

Recent sociological research in lesbian, gay, bisexual, and transgender studies addressing sexuality, identity, community, representation, politics, social change and their inter-relations.

SOC 457 Gender, Politics, Society in Europe (1400-1800) 3 IR  
Crosslisted with: HST 457, WGS 457  
Relationship between the sexes in politics, philosophy, literature, and art. Emergence of a dissident "voice" relative to gender identity and social role, with implications for race and religion. Offered only in Florence.

SOC 458 Contemporary Issues in Turkey 3 S  
Crosslisted with: IRP 458, PSC 458  
Offered only in Istanbul. Key political and social issues in contemporary Turkey. Democratization; relationship between secularism, the role of the military and Islam in political life; foreign policy including Turkish-US relations; nationalism, minorities, gender, human rights. Additional work required of graduate students.

SOC 466 Organizations and Society 3 IR  
Nature and types of organizations and organizational processes. Dynamic relationships of organizations to societies and individual identities.

SOC 470 Experience Credit 1-6 SI  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

SOC 490 Independent Study 1-6 S  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

SOC 492 Work and Inequality 3 IR  
Crosslisted with: WGS 492  
Current and past issues in research and policy concerning inequalities associated with work. Social construction and structural arrangements of work in American society.

SOC 495 Senior Thesis 3 Y  
Contemporary issues in sociology. Study of a particular problem by research methods. Collection and analysis of data. Written thesis and oral presentation required.

SOC 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

SOC 500 Selected Topics 1-3 SI  
In-depth selected study of certain social problems. R

SOC 513 Statistics for Social Science 3 Y  
Designed for first-year graduate students and sociology majors considering graduate study. Measures of central tendency and dispersion, hypothesis testing, and indices of association between variables. Application of statistics to social science data.

SOC 571 Topics in Sociolinguistics 3 SI  
Crosslisted with: ANT 571, LIN 571  
Functions of language in society. Geographical, socioeconomic, and male-female differentiation. Functions of various types of speech events. Requirements include a research project. R1, 6 credits maximum

## Social Science

SOS 200 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SOS 400 Selected Topics 1-3 Y  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

SOS 407 Political Integration and Disintegration in Western Europe 3 IR  
Crosslisted with: PSC 407  
Origins of the modern territorial states of western Europe. Growth of supranational institutions, such as the European Economic Community, and their impact on European economic and political development. Offered only in Florence.

SOS 408 Comparative Social Movements 3 IR  
Crosslisted with: PSC 408  
Origin and policy impact of contemporary and historical European movements for social and political change. Labor movements, Eurocommunism, feminism, national socialism, fascism, and peace movements. Offered only in Florence.

SOS 575 Philosophy of Social Science 3 O  
Crosslisted with: PHI 575  
Philosophical and methodological issues in social and behavioral science. Role of laws in explanation of human action, methodological individualism and holism, functional explanation, value-neutrality, behaviorism, and computer simulation.

# Faculty

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Alan Allport, Assistant Professor, History  
Ph.D., University of Pennsylvania, 2007  
Modern British and European history; war and social change; family and children's history

Kristi J. Andersen, Chapple Family  
Professor of Citizenship and Democracy;  
Laura J. and L. Douglas Meredith Professor;  
Maxwell Professor of Teaching Excellence,  
Political Science  
Ph.D., University of Chicago, 1976  
American politics, political parties, public opinion, women and politics

Douglas V. Armstrong, Laura J. and L.  
Douglas Meredith Professor of Teaching  
Excellence, Anthropology  
Ph.D., University of California, Los Angeles,  
1983  
Archaeology of North America, historical  
archaeology, ethnohistory, Caribbean, North  
America

Elizabeth Ashby, Assistant Professor,  
Economics  
Ph.D., Syracuse University, 2006  
Public finance, labor economics, applied  
microeconomics, public economics

Shena Ashley, Assistant Professor, Public  
Administration & International Affairs  
Ph.D., Georgia State University, 2007  
Nonprofit organizations, evaluation

Badi Baltagi, Distinguished Professor,  
Economics  
Ph.D., University of Pennsylvania, 1979  
Applied and theoretical econometrics

William C. Banks, Laura J. and L. Douglas  
Meredith Professor of Teaching Excellence,  
Public Administration & International Affairs  
and Board of Advisors Distinguished Professor,  
Law  
J.D. University of Denver, 1974  
Comparative legal systems, domestic and  
international terrorism, emerging powers,  
covert war powers, civil military relations

Michael Barkun, Professor Emeritus,  
Political Science  
Ph.D., Northwestern University, 1965  
Millenarian and utopian movements,  
jurisprudence, international law

Hossein Bashiriyeh, Lecturer, Political  
Science  
Ph.D., University of Liverpool (England),  
1982  
20th Century Political Thought; Democratic  
Transitions; Thomas Hobbes

Kenneth Baynes, Professor, Philosophy and  
Political Science (by courtesy)  
Ph.D., Boston University, 1987  
Social and political philosophy, critical  
theory, continental philosophy

Jacob Bendix, Associate Professor,  
Geography  
Ph.D., University of Georgia, 1992  
Biogeography, geomorphology, human  
impacts on environmental systems, media  
coverage of environment

David H. Bennett, Laura J. and L. Douglas  
Meredith Professor of Teaching Excellence,  
History  
Ph.D., University of Chicago, 1963  
Political extremism in America, 20th-century  
American history, modern military history

James P. Bennett, Associate Professor  
Emeritus, Political Science  
Ph.D., Massachusetts Institute of Technology,  
1978  
International relations, methodology

Catherine A. Bertini, Professor of Practice,  
Public Administration & International Affairs  
B.A., SUNY Albany, 1971  
Managing international and humanitarian aid  
organizations, former Under-Secretary-  
General for Management at the United  
Nations; Former Executive Director, World  
Food Program

Robert Bifulco, Associate Professor Public  
Administration & International Affairs  
Ph.D., Syracuse University, 2001  
Public finance, budgeting and financial  
management

Sari Knopp Biklen, A.A.U.W. Meredith  
Professor and Chair, Cultural Foundations of  
Education and Professor, Sociology (by  
courtesy)  
Ed.D., University of Massachusetts, 1973  
Qualitative research methodology, gender,  
race, and education, sociology of popular  
culture, cultural studies

Edwin A. Bock, Professor Emeritus, Public  
Administration & International Affairs  
A.B., Dartmouth College, 1943  
Political and administrative leadership;  
executive politics; national planning;  
government, mass media, and the arts

Robert C. Bogdan, Distinguished Professor  
Emeritus, Sociology  
Ph.D., Syracuse University, 1971  
Qualitative research methods, special  
education, visual sociology, disability studies

G. Matthew Bonham, Professor, Political  
Science  
Ph.D., Massachusetts Institute of Technology,  
1967  
International relations, foreign policy decision  
making, international negotiation,  
methodology

Susan R. Borker, Associate Professor  
Emerita, Sociology  
Ph.D., University of Chicago, 1971  
Quantitative methods, sex and gender roles,  
labor force issues

Mehrzaad Boroujerdi, Professor, Political  
Science  
Ph.D., American University, 1990  
The Middle East, comparative politics,  
international relations

Susan Branson, Professor, History  
Ph.D., Northern Illinois University, 1992  
U.S. women's history, U.S. social history, U.S.  
political history

Stuart I. Bretschneider, Laura J. and L.  
Douglas Meredith Professor of Teaching  
Excellence, Public Administration &  
International Affairs; Director, Center for  
Technology and Information Policy  
Ph.D., Ohio State University, 1981  
Quantitative methods, information  
management, computer application and  
strategic planning

Walter Broadnax, Distinguished Professor,  
Public Administration & International Affairs  
Ph.D., Syracuse University, 1975  
Strategic public management, executive  
leadership

Stuart Brown, Professor of Practice, Public  
Administration & International Affairs  
Ph.D., Columbia University, 1985  
International economics, macroeconomics,  
emerging markets, political economy

Hans C. Buechler, Professor, Anthropology  
Ph.D., Columbia University, 1966  
Culture change, internal and international  
migration, urban problems, ethnic identity,  
ethnic elites, political anthropology, life  
history methodology, Andes, Latin America,  
Spain, Switzerland, Central Europe, eastern  
Germany

John S. Burdick, Professor, Anthropology  
Ph.D., City University of New York, 1990  
Religious movements, politics, gender,  
medical, African Americans, Brazil, Latin  
America

Leonard E. Burman, Paul A. Volcker Chair in Economic Policy; Professor of Practice, Public Administration and Economics Ph.D., University of Minnesota, 1985  
Federal tax policy, healthcare and budget reform

Joan N. Burstyn, Professor Emerita, History Ph.D., University of London, 1968  
History of women in British and American education, history of higher education

Kristina Buzard, Assistant Professor, Economics Ph.D., University of California, San Diego, 2012  
International trade, urban economics

Keith J. Bybee, Professor, Political Science and the Paul E. and the Hon. Joanne F. Alper '72 Judiciary Studies Professor, Law Ph.D., University of California, San Diego, 1995  
American public law, legal theory, political philosophy, American politics and the politics of race

Horace Campbell, Professor, Political Science and African American Studies Ph.D., Sussex University, 1979  
Comparative politics of Africa and the Caribbean, African international relations, armaments, culture, pan Africanism, peace studies, political economy

Linda Carty, Associate Professor, African American Studies and Sociology (by courtesy) Ph.D., University of Toronto, 1989  
Race, class, and gender studies; comparative sociology; international development, post-colonial discourse; Third World feminism

A.H. Peter Castro, Associate Professor, Anthropology Ph.D., University of California, Santa Barbara, 1988  
Applied anthropology, international development, conflict management, ecology, forestry, agrarian societies, refugees, colonialism, East Africa

Craige B. Champion, Associate Professor, History Ph.D., Princeton University, 1993  
Hellenistic Greece, Greek democracy and republican Rome, ancient imperialism, ethnic identity formation in classical antiquity, the politics of culture in ancient Greece and Rome, classical historiography

Robert Christen, Professor of Practice, Public Administration and International Affairs M.S. Ohio State University, 1984  
Microfinance, agricultural economics, development finance

Matthew R. Cleary, Associate Professor, Political Science Ph.D., University of Chicago, 2004  
Comparative politics, Latin American politics, comparative political economy

Andrew W. Cohen, Associate Professor, History Ph.D., University of Chicago, 1999  
Legal history, American labor history, 20th century American history

Elizabeth F. Cohen, Associate Professor, Political Science Ph.D., Yale University, 2003  
Political theory, history of political thought, immigration and citizenship

Goodwin Cooke, Professor of Practice Emeritus, Political Science B.A., Harvard University, 1953  
Former U.S. Foreign Service Officer, experience in Asia, Europe, Canada, and Africa; ambassador to Central African Republic

William D. Coplin, Laura J. and L. Douglas Meredith Professor of Teaching Excellence, Public Affairs Ph.D., American University, 1964  
International relations, public policy analysis

Francine D'Amico, Part-time Associate Professor, International Relations Ph.D., Cornell University, 1989  
Latin American politics and international relations

Bruce W. Dayton, Research Assistant Professor, Political Science; Assistant Director, Moynihan Institute of Global Affairs Ph.D., Syracuse University, 1999  
International environmental affairs, political psychology, public policy dispute resolution

Rafael Fernández de Castro, Jay and Debe Moskowitz Endowed Chair, Public Administration and International Affairs Ph.D., Georgetown University, 1995  
Foreign Policy, US-Mexico Relation, Inter-American Studies

Renée de Nevers, Associate Professor and Vice Chair, Public Administration & International Affairs and Political Science (by courtesy) Ph.D., Columbia University, 1992  
International security policy, international organizations

Christopher R. DeCorse, Professor, Anthropology Ph.D., University of California, Los Angeles, 1989  
Archaeology, historical archaeology, culture change, trade, West Africa, general anthropology

Thomas H. Dennison, Professor of Practice; Co-Director, Masters in Public Health Program; Program Advisor, Health Service Management and Policy (HSMP), Public Administration & International Affairs Ph.D., Pennsylvania State University, 1987  
Health care administration, finance and policy

Marjorie L. DeVault, Professor, Sociology Ph.D., Northwestern University, 1984  
Sex and gender studies, qualitative methods, feminist studies

Albrecht Diem, Associate Professor, History Ph.D., University of Utrecht, 2000  
Early Medieval Europe, early Christianity, monasticism

David Kwame Dixon, Assistant Professor, African American Studies and Political Science (by courtesy) Ph.D., Clark Atlanta University, 1996  
International relations, comparative politics and political economy

Dawn Dow, Assistant Professor, Sociology Ph.D., University of California, Berkeley, 2012  
Race/ethnicity, family, intersectionality (race, class, gender), gender, sociology of law, qualitative research methods and theory

Gavan Duffy, Associate Professor, Political Science Ph.D., Massachusetts Institute of Technology, 1987  
Political methodology, political behavior and communication, American politics

William D. Duncombe, Professor, Public Administration & International Affairs Ph.D., Syracuse University, 1989  
Public budgeting and finance, quantitative methods, development administration, education policy and finance

- Donald H. Dutkowsky, Professor, Economics  
Ph.D., State University of New York at Buffalo, 1982  
Macroeconomic, monetary theory and policy, applied econometrics
- Michael R. Ebner, Associate Professor and Chair, History  
Ph.D., Columbia University, 2004  
History of modern Europe, Italy, Fascism, and political violence
- Samuel Eddy, Professor Emeritus, History  
Ph.D., University of Michigan, 1958  
Classical, Greece and Rome
- Colin Elman, Associate Professor, Political Science; Director, Center for Qualitative and Multi-Method Inquiry  
Ph.D., Columbia University, 1999  
International relations theory, qualitative research methods
- Miriam Fendius Elman, Associate Professor, Political Science  
Ph.D., Columbia University, 1996  
International security, democracy, politics of the Middle East
- Gary V. Engelhardt, Professor, Melvin A. Eggers Faculty Scholar, Faculty Associate, Aging Studies Institute, Economics  
Ph.D., Massachusetts Institute of Technology, 1993  
Housing economics, public finance, tax policy, public economics, labor economics
- Margarita Estévez-Abe, Associate Professor, Political Science  
Ph.D., Harvard University, 1999  
Comparative politics, political economy, gender, and Japan
- Jerry Evensky, Laura J. and L. Douglas Meredith Professor for Teaching Excellence, Economics  
Ph.D., Syracuse University, 1984  
History of economic thought, labor economics, philosophy of economics (methodology), economic education
- Cissie C. Fairchild, Professor Emerita, History  
Ph.D., Johns Hopkins University, 1972  
European social history, early modern France, women's history
- Christopher G. Faricy, Assistant Professor, Political Science  
Ph.D., University of North Carolina at Chapel Hill, 2010  
American politics, public policy, economic inequality
- Carol Faulkner, Professor, History  
Ph.D., Binghamton University, 1998  
19th century American history, slavery
- Michael A. Flusche, Associate Professor Emeritus, History  
Ph.D., Johns Hopkins University, 1973  
American Civil War and Reconstruction, American South
- Shana Gadarian, Assistant Professor, Political Science  
Ph.D., Princeton University, 2008  
American politics and political communication, political behavior, political psychology, research methods and public health
- Peng Gao, Associate Professor, Geography  
Ph.D., University of Buffalo, 2003  
Geographic information systems modeling, human impacts on physical environments, fluvial systems
- Susan H. Gensemer, Associate Professor, Economics  
Ph.D., Purdue University, 1984  
Micro-economic theory, decision theory, quantitative economics, economics and gender
- Jeffrey Gonda, Assistant Professor, History  
Ph.D., Yale University, 2012  
20th-century American politics and society, U.S. race and rights, U.S. urban
- Cecilia A. Green, Associate Professor, Sociology  
Ph.D., University of Toronto, 1998  
Historical sociology, Caribbean, race/class/gender, globalization
- Vernon L. Greene, Professor and Chair - Social Science Ph.D., Public Administration & International Affairs  
Ph.D., Indiana University, 1978  
Political theory, citizenship, program evaluation, quantitative methods
- Dimitar D. Gueorguiev, Assistant Professor, Political Science  
Ph.D., University of California at San Diego, 2014  
Chinese politics, developing economies, authoritarian institutions, governance, corruption, public participation, program design and evaluation
- Paul M. Hagenloh, Associate Professor, History  
Ph.D., University of Texas, Austin, 1999  
Modern Russia/Soviet Union: Modern dictatorships, history of policing, genocide, critical theory
- Sarah Hammersma, Assistant Professor, Public Administration and International Affairs  
Ph.D. University of Wisconsin, Madison, 2004  
Public economics, labor economics, applied microeconomics
- Jonathan K. Hanson, Assistant Professor, Political Science  
Ph.D., University of Michigan, Ann Arbor, 2007  
Comparative political economy and development, East Asia, quantitative methods
- Madonna Harrington Meyer, Laura J. and L. Douglas Meredith Professor for Teaching Excellence, Sociology  
Ph.D., Florida State University, 1991  
Aging, health care, gender policy
- Margaret Hermann, Gerald B. and Daphna Cramer Professor of Global Affairs; Professor, Political Science; Director, Moynihan Institute of Global Affairs  
Ph.D., Northwestern University, 1965  
Political leadership, political psychology, foreign policy decision making, comparative foreign policy
- Samantha Kahn Herrick, Associate Professor, History  
Ph.D., Harvard University, 2002  
Medieval European history, Christian hagiography and apostolic legends, memory, power
- William Horrace, Professor and Chair, Melvin A. Eggers Economics Faculty Scholar, Economics  
Ph.D., Michigan State University, 1996  
Theoretical and applied econometrics, spatial econometrics

Yilin Hou, Professor, Public Administration & International Affairs  
Ph.D. Syracuse University, 2002  
Public budgeting and finance

Azra Hromadzic, Assistant Professor, Anthropology  
Ph.D. University of Pennsylvania, 2009  
political anthropology, ethno-political violence and post-conflict reconciliation, socialism and post-socialism, citizenship and globalization, gender, youth identity and cultures, comparative education, Eastern Europe and the Balkans

Matthew Huber, Assistant Professor, Geography  
Ph.D. Clark University, 2009  
political economy, historical geography, energy and capitalism, oil, resource governance and social theory

Seth Jolly, Assistant Professor, Political Science  
Ph.D., Duke University, 2006  
European Union, democratic institutions, comparative and international political economy, political parties, ethnic conflict, race and politics, political methodology

Amy Kallander, Associate Professor, History  
Ph.D., University of California, Berkeley, 2007  
Modern Middle East

George Kallander, Associate Professor, History  
Ph.D., Columbia University, 2006  
Korean and northeast Asian history and culture

Chihwa (Duke) Kao, Professor, Economics  
Ph.D., State University of New York at Stony Brook, 1983  
Econometrics, statistics, mathematical economics

Leyla Karakas, Assistant Professor, Economics  
Ph.D., Johns Hopkins University, 2014  
Political economy, game theory, applied microeconomics, public economics

Neil Katz, Associate Professor Emeritus, Public Affairs  
Ph.D., University of Maryland, 1974  
Nonviolent conflict and change, conflict resolution, modern American peace movements

Thomas M. Keck, Associate Professor and Michael O. Sawyer Chair in Constitutional Law and Politics  
Ph.D., Rutgers University, 1999  
Supreme Court, American constitutional development

William F. Kelleher Jr., Associate Professor, Anthropology  
Ph.D., University of Michigan, 1990  
Colonialism, history and memory, work and class, political violence, Northern Ireland, North America

Jerry S. Kelly, Distinguished Professor, Economics  
Ph.D., Harvard University, 1969  
Social choice, econometric theory, microeconomic theory

Ralph Ketcham, Maxwell Professor Emeritus of Citizenship and Public Affairs; History, Public Affairs, and Political Science  
Ph.D., Syracuse University, 1956  
American political thought, era of American Revolution, public policy, comparative political cultures, comparative political theory, American intellectual history

O samah F. Khalil, Assistant Professor, History  
Ph.D., University of California, Berkeley, 2011  
U.S. Foreign Policy and the origins and expansion of Middle East studies

Soonhee Kim, Professor, Public Administration & International Affairs  
Ph.D., State University of New York at Albany, 1998  
Public management, human resources management, leadership development

Sharon N. Kioko, Associate Professor, Public Administration & International Affairs  
Ph.D., Indiana University, 2008  
State and local government finance, financial management and accounting, program evaluation

Audie Klotz, Professor, Political Science  
Ph.D., Cornell University, 1991  
International relations, transnational actors and activism

Thomas J. Kniesner, Krisher Professor Emeritus, Economics  
Ph.D., Ohio State University, 1974  
Labor economics, health economics

Natalie Koch, Assistant Professor, Geography  
Ph.D., University of Colorado, Boulder, 2012  
Political Geography, urban space, citizenship and nationalism in Central Asia and the Persian Gulf

Louis Kriesberg, Maxwell Professor Emeritus, Sociology  
Ph.D., University of Chicago, 1953  
World conflicts, conflict resolution, race/ethnic/minority relations

Jeffrey D. Kubik, Associate Professor, Economics  
Ph.D., Massachusetts Institute of Technology, 1997  
Labor economics, public finance

Radha Kumar, Assistant Professor, History  
Ph.D., Princeton University, 2014  
Modern South Asia, Urban History, Caste in India

Prema Kurien, Professor, Sociology  
Ph.D., Brown University, 1993  
International migration and immigration, sociology of religion, race and ethnicity, religion and society in India

Norman A. Kutcher, Laura J. and L. Douglas Meredith Professor of Teaching Excellence, History  
J.D., Boston College, 1985; Ph.D., Yale University, 1991  
Cultural, social, and intellectual history of China

Chris Kyle, Associate Professor, History  
Ph.D., Auckland University, 1994  
Toponomology, society, law and culture of Westminster and London, the social history of Parliaments in early modern Britain

Derek Laing, Associate Professor, Economics  
Ph.D., University of Essex, United Kingdom, 1990  
Macroeconomics, monetary theory, labor economics, industrial organization

W. Henry Lambright, Professor, Political Science and Public Administration & International Affairs  
Ph.D., Columbia University, 1966  
Science, technology, and public policy; energy, environment, and resources policy; technology and politics; bureaucratic politics

Elisabeth D. Lasch-Quinn, Professor,  
History  
Ph.D., University of Massachusetts, Amherst,  
1990  
Modern American social, cultural, intellectual  
history; social/political thought; cultural  
criticism; public philosophy; ethics;  
democracy; civil society; race; family

Jesse D. Lecy, Assistant Professor, Public  
Administration and International Affairs  
Ph.D., Syracuse University, 2010  
Non-profit organizations, urban policy

Yoonseok Lee, Assistant Professor,  
Economics  
Ph.D., Yale University, 2006  
Econometric theory, emiparametric/  
nonlinear (dynamic) panel data models, many  
(weak) instrument problem, high dimensional  
models, social interaction and spatial  
dependence

Andrew Lipman, Assistant Professor,  
History  
Ph.D., University of Pennsylvania, 2010  
Colonial North American and U.S. to 1877,  
Native Americans, Early American material  
cultures

Chung-Chin (Eugene) Liu, Assistant  
Professor, Economics  
Ph.D., Syracuse University, 2006  
Economic development, labor economics,  
international economics, immigration

Richard R. Loder, Part-time Professor of  
Sociology  
Ph.D., Syracuse University, 1978  
race and ethnicity, social process and social  
change, federal Indian policy and identity,  
Native American Studies

Andrew S. London, Professor, Sociology  
Ph.D., University of Pennsylvania, 1993  
Health and health care, demography, families,  
HIV/AIDS, carework, poverty, veterans, aging  
and the life course, LGBT Studies

Leonard Lopoo, Associate Professor, Public  
Administration & International Affairs;  
Director, Center for Policy Research  
Ph.D., Chicago, 2001  
Poverty economic geography, child and  
family policy

Julia Loughlin, Professor Emeritus,  
Sociology  
Ph.D., Columbia University, 1971  
Sex and gender roles, race/ethnic/minority  
relations, science and technology

Mary E. Lovely, Chair of International  
Relations (Undergraduate); Professor,  
Economics  
Ph.D., University of Michigan, 1989  
International economics, public finance, labor  
economics

Amy Lutz, Associate Professor, Sociology  
Ph.D., SUNY Albany, 2002  
Race, ethnicity, stratification, political  
sociology, Latin American/Latino studies

Yingyi Ma, Associate Professor, Sociology  
Ph.D., Johns Hopkins, 2006  
Social stratification and social inequality,  
sociology of education, immigration,  
quantitative methods

Robin P. Malloy, E.I. White Chair and  
Distinguished Professor of Law and Professor,  
Economics (by courtesy)  
J.D., University of Florida, 1980; LL.M.,  
Illinois, 1983  
Real estate transactions, law and economics,  
land use and development, property

William P. Mangin, Professor Emeritus,  
Anthropology  
Ph.D., Yale University, 1954  
Urban, race and ethnicity, applied qualitative  
methods; Peru, United States, Spain

Laurie Marhoefer, Assistant Professor,  
History  
Ph.D., Rutgers University, 2008  
Modern European history (Germany), gender  
history

Frederick D. Marquardt, Assistant  
Professor Emeritus, Maxwell Professor of  
Teaching Excellence, History  
Ph.D., University of California, Berkeley,  
1973  
German and European social history

Peter T. Marsh, Professor Emeritus, History  
Ph.D., University of Cambridge, 1962  
19th/20th century Britain, international  
political economy

Allan C. Mazur, Professor, Public Affairs  
Ph.D., Johns Hopkins University, 1969  
Biosociology, sciences and technology

Robert D. McClure, Chapple Family  
Professor Emeritus; Professor Emeritus,  
Political Science and Public Affairs  
Ph.D., Indiana University, 1969  
American politics, leadership, mass  
communication

Gladys McCormick, Assistant Professor,  
History  
Ph.D., University of Wisconsin, 2009  
Latin America and the Caribbean, 19th- and  
20th-century Mexico

Daniel McDowell, Assistant Professor,  
Political Science  
Ph.D., University of Virginia, 2012  
International relations, international political  
economy, international financial institutions

John G. McPeak, Associate Professor and  
Vice Chair, Public Administration &  
International Affairs  
Ph.D., Wisconsin, 1999  
Development economics, natural resource  
economics, African agricultural development

Donald Meinig, Professor Emeritus,  
Geography  
Ph.D., University of Washington, 1953  
Cultural and historical geography of North  
America

John Mercer, Professor Emeritus, Geography  
Ph.D., McMaster University, 1971  
Urban and political geography, housing,  
comparative studies

Christina Merchant, Professor of Practice,  
Public Administration & International Affairs  
M.S., American University, 1990  
Conflict management systems design, federal  
mediation, alternative dispute resolution

Ines A. Mergel, Associate Professor, Public  
Administration & International Affairs  
D.B.A., University of St. Gallen, 2005  
Information management, social network  
analysis

Susan W. Millar, Associate Professor,  
Geography  
Ph.D., Rutgers University, 1995  
Physical geography, periglacial  
geomorphology, arctic science, climate change

Jerry Miner, Professor Emeritus, Economics  
Ph.D., University of Michigan, 1958  
Public economics, human resources economics

Don Mitchell, Distinguished Professor,  
Geography  
Ph.D., Rutgers University, 1992  
Cultural, political economy of landscape, social  
theory, labor, geographies of power and  
marginalization, Marxism

- Devashish Mitra, Professor; Gerald B. and Daphna Cramer Professor of Global Affairs, Economics  
Ph.D., Columbia University, 1996  
International trade, political economy, development economics
- Chandra Talpade Mohanty, Professor and Chair, Women's and Gender Studies Department, Sociology  
Ph.D., University of Illinois at Urbana-Champaign, 1987  
Transnational feminist theory, postcolonial feminism, globalization and anti-capitalist praxis, the politics of knowledge, and anti-racist education
- Mark Monmonier, Distinguished Professor, Geography  
Ph.D., Pennsylvania State University, 1969  
Geographic information (technology, policy, and societal role), cartographic communication and map design, history of cartography in the 20th century, environmental mapping
- Glyn Morgan, Associate Professor, Political Science  
Ph.D., University of California at Berkeley, 2001  
Modern political theory, European Union and religion in public life
- Anne E. Mosher, Associate Professor, Geography  
Ph.D., Pennsylvania State University, 1989  
Historical geography of North America, urban and urban historical geography, research methods in historical geography, interdisciplinary theories of space and place
- Quinn Mulroy, Assistant Professor, Political Science  
Ph.D., Columbia University, 2012  
American political development, political institutions, public policy, American legal system, bureaucracy, Congress, race and environmental policy and law, research methodology
- Robert Murrett, Professor of Practice, Public Administration & International Affairs  
M.A., Georgetown University and M.A., Defense Intelligence College  
Intelligence, national security, military strategy
- Piyusha Mutreja, Assistant Professor, Economics  
Ph.D., University of Iowa, 2010  
International economics, economics development, macroeconomics
- Tina Nabatchi, Associate Professor, Public Administration & International Affairs  
Ph.D., Indiana University, 2007  
Deliberative democracy, alternative dispute resolution in the federal government
- James Newman, Professor Emeritus, Geography  
Ph.D., University of Minnesota, 1968  
Population and settlement geography, diet and nutrition, human geography of Africa, prehistory
- Shannon A. Novak, Associate Professor, Anthropology  
Ph.D., University of Utah, 1999  
Bioarchaeology, ethnohistory, gender, political violence, materiality of the body, North America
- Inge O'Connor, Assistant Professor, Economics  
Ph.D., Syracuse University, 1996  
Public economics, labor economics
- Rosemary O'Leary, Professor Emeritus, Public Administration and International Affairs  
J.D. University of Kansas, 1981; Ph.D. Syracuse University, 1988  
Public management, environmental policy, dispute resolution, law
- Jan Ivar Ondrich, Professor, Economics  
Ph.D., University of Wisconsin, 1983  
Econometrics, labor economics, urban economics
- Jackie Orr, Associate Professor, Sociology  
Ph.D., University of California, Berkeley, 1999  
Contemporary theory, sociology of science, technology and medicine, gender studies
- John L. Palmer, University Professor and Dean Emeritus, Public Administration & International Affairs and Economics  
Ph.D., Stanford University, 1970  
Public management and public policy, social welfare policy
- Arthur Paris, Associate Professor, Sociology  
Ph.D., Northwestern University, 1974  
Urban sociology; race/ethnic/minority relations; science and technology
- Eleonora Patacchini, Associate Professor, Economics  
Ph.D., University of Southampton (UK), 2004  
Panel data econometrics, spatial statistics and graph theory, urban economics
- Lourenço Paz, Assistant Professor, Economics  
Ph.D., University of Maryland, 2009  
International trade and labor economics
- Deborah Pellow, Professor, Anthropology  
Ph.D., Northwestern University, 1974  
Gender, ethnicity, urban society, anthropology of space and place, Africa
- Thomas Perreault, Professor, Geography  
Ph.D., University of Colorado, 2000  
Political ecology, environment and development, social movements, indigenous resource use, Latin America
- Rebecca Peters, Assistant Professor, Public Administration & International Affairs (Anthropology by courtesy)  
Ph.D., Brown University, 2011  
Lusophone Africa; International Development, especially the cultures of non-governmental health organizations; Globalization; Medical Anthropology, especially the study of reproductive health; Anthropology of Science and Medicine.
- Guido Pezzarossi, Assistant Professor, Anthropology  
Ph.D., Stanford University, expected August 2014  
Archaeology of colonialism, historical archaeology, Guatemala, New England, postcolonial and materialist theory
- Spencer Piston, Assistant Professor, Political Science  
Ph.D., University of Michigan, 2014  
Race, public opinion and political behavior, politics of inequality
- William S. Pooler, Associate Professor Emeritus, Sociology  
Ph.D., University of Michigan, 1971  
Quantitative methodology, family, criminal justice
- David C. Popp, Professor, Public Administration & International Affairs  
Ph.D., Yale University, 1997  
Environmental economics, economics of technological change, public finance
- Sarah B. Pralle, Associate Professor, Political Science  
Ph.D., University of Washington, Seattle, 2001  
Public policy processes

James E. Price, Associate Professor Emeritus, Economics  
Ph.D., Massachusetts Institute of Technology, 1963  
Macroeconomics, international trade

Gretchen Purser, Assistant Professor, Sociology  
Ph.D., University of California at Berkeley, 2009  
Work and labor markets, urban poverty, punishment and ethnography

Richard Ratcliff, Professor Emeritus, Sociology  
Ph.D., University of Wisconsin - Madison  
Political economy, stratification/mobility, conflict resolution, social theory, research methods

Jane M. Read, Associate Professor, Geography  
Louisiana State University, 1999  
Geographic information systems and remote sensing, human-environment interactions, tropical environments, Latin America

Grant D. Reeher, Professor, Political Science; Director, Campbell Institute  
Ph.D., Yale University, 1992  
American politics, American political theory, political philosophy

J. David Richardson, Professor Emeritus, Economics  
Ph.D., University of Michigan, 1970  
International economics, trade policy

David J. Robinson, Dellplain Professor of Latin American Geography, Geography  
Ph.D., London University, 1967  
Latin America, historical development, Internet

Jonnell Robinson, Assistant Professor, Geography  
Ph.D., University of North Carolina, 2010  
Community geography, participatory geographic information systems (GIS)

Lars Rodseth, Associate Professor, Anthropology  
Ph.D., University of Michigan, 1993  
History of the human sciences, social and evolutionary theory, kinship, nationalism, violence, ideology, religion; South Asia, Tibet, United States

Dennis Romano, Dr. Walter Montgomery and Marian Gruber Professor of History, History  
Ph.D., Michigan State University, 1981  
Renaissance Italy, early modern social and cultural history, Venice

Stuart S. Rosenthal, Maxwell Advisory Board Professor, Economics  
Ph.D., University of Wisconsin, 1986  
Urban economics, housing economics, real estate finance, public economics

Ross Rubenstein, Associate Dean and Chair, Public Administration & International Affairs  
Ph.D., New York University, 1997  
Public finance, policy analysis and education policy

Robert A. Rubinstein, Professor, Anthropology and International Relations  
Ph.D., State University of New York at Binghamton, 1977; Ms.PH, School of Public Health, University of Illinois, Chicago, 1983  
Global health, urban health, peace and conflict, negotiation, peacekeeping, the Middle East

Mark Rupert, Professor, Political Science  
Ph.D., Claremont Graduate School, 1988  
International relations

Tod D. Rutherford, Professor and Chair, Geography  
Ph.D., University of Wales, 1992  
Economic restructuring, labor and the automobile industry, labor market processes and policies, regional development

Anoop Sadanandan, Assistant Professor, Political Science  
Ph.D., Duke University, 2011  
Comparative politics, political economy, political and economic development, institutions, political parties, ethnic politics, developing countries and India

S.N. Sangmpam, Professor, African American Studies and Political Science  
Ph.D., University of Chicago, 1984  
Comparative politics, Panafricanism, African American politics

Mark G. Schmeller, Associate Professor, History  
Ph.D., University of Chicago, 2001  
18th and 19th century American intellectual, political and legal history

Hans Peter Schmitz, Associate Professor, Political Science  
Ph.D., European University Institute, 1999  
International relations, nonstate actors, human rights

Sabina Schnell, Assistant Professor, Public Administration and International Affairs  
Ph.D., The George Washington University, 2014  
International management and governance, Eastern Europe

Larry Schroeder, Professor Emeritus, Public Administration & International Affairs  
Ph.D., Wisconsin University, 1971  
Public sector economics, quantitative methods, financial management in local governments and developing countries

Amy Ellen Schwartz, Daniel Patrick Moynihan Professor of Public Affairs, Professor of Public Administration and International Affairs and Economics  
Ph.D., Columbia University, 1989  
Urban policy, education policy and public finance

Maureen Trudelle Schwarz, Professor, Anthropology  
Ph.D., University of Washington, 1995  
Advocate of Native North Americans and their rights, Navajo reservation, issues of representation, notions of personhood, medical and religious pluralism, indigenous justice systems

Milton Sernett, Professor Emeritus, History and African American Studies  
Ph.D., University of Delaware, 1972  
African American religious history, slavery and abolition

Yüksel Sezgin, Assistant Professor  
Ph.D., University of Washington, 2007  
Comparative politics, law and courts, the middle east, religion, human rights

Martin S. Shanguhya, Assistant Professor, History  
Ph.D., West Virginia University, 2007  
Colonial and postcolonial Africa; African political, economic and cultural history; African environment and sustainability

James Roger Sharp, Professor Emeritus, History  
Ph.D., University of California, Berkeley, 1966  
American political history, early national and middle period, 1789-1860

- Abdulaziz Shifa, Assistant Professor, Economics  
Ph.D., Stockholm University, 2013  
Macroeconomics, development and political economy
- Merril Silverstein, Marjorie Cantor Professor of Aging Studies  
Ph.D., Columbia University, 1990  
Intergenerational relations, social support, caregiving policy, migration in later life, and international views on aging families
- Perry Singleton, Assistant Professor, Economics  
Ph.D., University of Maryland, 2007  
Public finance, health economics, labor economics, applied microeconomics
- Theresa A. Singleton, Associate Professor, Anthropology  
Ph.D., University of Florida, 1980  
Historical archaeology, African American history and culture, slavery in plantation America
- Gary Spencer, Professor Emeritus, Sociology  
Ph.D. Boston, 1970  
Dramaturgy, prejudice and discrimination, ethnicity
- David H. Stam, University Librarian Emeritus and Senior Scholar, History  
Ph.D., Northwestern University  
Library history, bank history, 19th-century British studies, historiography
- Abbey Steele, Assistant Professor, Public Administration & International Affairs and Political Science (by courtesy)  
Ph.D. Yale University, 2010  
Civil wars, political and criminal violence, state-building and governance, political order, trafficking and Latin America
- James B. Steinberg, Dean and University Professor  
J.D., Yale University  
Public affairs, foreign policy and national security
- William C. Stinchombe, Professor Emeritus, History  
Ph.D., University of Michigan, 1967  
American diplomatic history, political history
- Jeffrey M. Stonecash, Maxwell Professor Emeritus, Political Science  
Ph.D., Northwestern University, 1975  
Political parties, intergovernmental relations, state politics
- Farhana Sultana, Associate Professor, Geography  
Ph.D., University of Minnesota, 2007  
Political ecology, development theory, water resources management
- Junko Takeda, Associate Professor, History  
Ph.D., Stanford University, 2006  
Modern European history
- Brian D. Taylor, Professor, Political Science  
Ph.D., Massachusetts Institute of Technology, 1998  
Comparative politics, Russian politics
- Laurence Thomas, Professor, Political Science and Philosophy  
Ph.D., University of Pittsburgh, 1976  
Political theory, foundations of moral character
- Margaret Susan Thompson, Associate Professor, History and Political Science  
Ph.D., University of Wisconsin, 1979  
Modern American history, government and politics, religion, women's history
- Stuart J. Thorson, Donald P. and Margaret Curry Gregg Professor; International Relations and Political Science  
Ph.D., University of Minnesota, 1972  
International relations, political theory and methodology
- John Marshall Townsend, Professor, Anthropology  
Ph.D., University of California, Santa Barbara, 1972  
Medical and psychological anthropology, theory and methodology, cross-cultural mental health, human sexuality, ethnic relations, symbolic interaction, United States, Germany
- A. Dale Tussing, Professor Emeritus, Economics  
Ph.D., Syracuse University, 1964  
Health economics, poverty, Marxian economics
- Cecilia Van Hollen, Associate Professor, Anthropology  
Ph.D., University of California, Berkeley and San Francisco, 1998  
Cultural and medical anthropology, reproductive health, gender; South Asia
- David Van Slyke, Louis A. Bantle Chair in Business and Government Policy, Professor, Public Administration & International Affairs  
Ph.D., SUNY Albany, 1999  
Public administration and organizations, public policy process, strategic management, philanthropy, and charitable giving
- Susan S. Wadley, Ford-Maxwell Professor of South Asian Studies, Anthropology  
Ph.D., University of Chicago, 1973  
Social change, demography, religion, folklore, performance studies, gender issues, India
- Michael Wasylenko, Senior Associate Dean and Professor, Economics  
Ph.D., Syracuse University, 1975  
Public finance, public finance in developing countries, urban economics
- Stephen S. Webb, Professor Emeritus, History  
Ph.D., University of Wisconsin, 1965  
Early American and Anglo-American history, the Iroquois
- Jeffrey Weinstein, Assistant Professor, Economics  
Ph.D., Yale University, 2008  
Public economics, economics of education, urban economics
- John C. Western, Professor, Geography  
Ph.D., University of California, Los Angeles, 1978  
Social, cultural, urban; Southern Africa, Europe
- Peter J. Wilcoxon, Associate Professor, Public Administration & International Affairs and Economics  
Ph.D., Harvard University, 1989  
Environmental economics, natural resource economics
- Janet Wilmoth, Professor, Sociology; Director, Aging Studies Institute  
Ph.D., Pennsylvania State University, 1995  
Sociology of aging and the life course, demography, health
- Robert M. Wilson, Associate Professor, Geography  
Ph.D., University of British Columbia, 2003  
Environmental historical geography, western United States and Canada, environmental policy

Jamie L. Winders, Associate Professor,  
Geography

Ph.D., University of Kentucky, 2004

Urban and social geography, race/ethnicity,  
gender, migration, North America, identity  
theorizations, U.S. South, qualitative and  
historical research methods, social theory

Douglas A. Wolf, Gerald B. Cramer

Professor of Aging Studies, Public

Administration & International Affairs

Ph.D., University of Pennsylvania, 1977

Aging policy, population studies, quantitative  
methods

John M. Yinger, Trustee Professor, Public

Administration & International Affairs and

Economics

Ph.D., Princeton University, 1974

Urban economics, state and local government  
finance, housing

# S.I. Newhouse School Of Public Communications

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Lorraine Branham, Dean  
400 Newhouse I  
newhouse.syr.edu



## About The College

The S.I. Newhouse School of Public Communications is widely regarded as one of the nation's top schools of communications. Engaged in industry partnerships and ongoing curricular development, the scope of the S.I. Newhouse School of Public Communications reaches beyond the confines of the classroom. The school prepares students and faculty alike to take a leadership role in addressing the issues of today's rapidly changing media landscape.

The Newhouse School claims a distinguished faculty with a broad range of expertise which is supplemented by visiting communications professionals, regularly bringing new experiences to the classroom. Students study in a modern, three-building complex, which houses multimedia labs, television and photography studios, and sound production and recording facilities. Students are supported in their professional development by the Tina Press and David Rubin Career Development Center which serves students who are engaged in public communications studies and helps them make professional connections and find internships, as well as professional positions.

[http://newhouse.syr.edu/Career\\_Development\\_Center/students/services/index.cfm](http://newhouse.syr.edu/Career_Development_Center/students/services/index.cfm)

Upon graduation, students join the ranks of Newhouse alums, a large and robust group of communications professionals influencing all aspects of the industry. The Career Development Center encourages networking among alums and between students and alums, supporting their continued involvement in the Newhouse School.

The S.I. Newhouse School embraces every known form of public communications offering a rich variety of undergraduate and graduate programs:

### Undergraduate:

- Bachelor of Science in Advertising
- Bachelor of Science in Broadcast and Digital Journalism
- Bachelor of Science in Graphic Design
- Bachelor of Science in Magazine
- Bachelor of Science in Newspaper and Online Journalism
- Bachelor of Science in Photography
- Bachelor of Science in Public Relations
- Bachelor of Science in Television, Radio and Film

### Graduate: Master's Level

- Certificate of Advanced Study in Media and Education
- Master of Arts in Advertising
- Master of Arts in Arts Journalism
- Master of Arts in Audio Arts
- Master of Science in Broadcast and Digital Journalism
- Master of Science in Communications Management
- Master of Science in Computational Journalism
- Master of Arts in Documentary Film and History
- Master of Arts in Magazine, Newspaper, and Online Journalism
- Master of Arts in Media and Education
- Master of Science in New Media Management
- Master of Arts in Media Studies
- Master of Science in Photography
- Dual Masters' Programs in Public Diplomacy (M.S in Public Relations and M.A in International Relations)
- Master of Science Program in Public Relations
- Master of Arts in Television, Radio and Film

### Graduate: Doctoral Level

- Ph. D. in Mass Communications

### Minors

- Communications Photography
- Public Communications Studies

## Educational Mission

The S. I. Newhouse School of Public Communications' mission is to educate ethical, visionary communicators whose goal is to establish an open marketplace of ideas guided by the First Amendment using contemporary professional practices. In the course of earning their degree, students are expected to achieve the following educational outcomes:

1. Demonstrate strong writing ability.
2. Demonstrate the ability to construct and tell a story effectively in spoken words, images, text and through multi-media.
3. Understand and make use of information technology, and grasp its import for society.
4. Understand effective visual language and how to apply it to create visual messages and enhance communications.
5. Understand the events and issues of the day in public communications and society in an environment both encouraged and deepened by the liberal arts experience.
6. Think analytically, gain numerical proficiency and learn to develop well-researched positions on issues.
7. Demonstrate knowledge of the historical traditions in public communications and of industry practices and products.
8. Demonstrate a knowledge of ethical practice in the communications field, along with an understanding of the responsibilities media practitioners have for the public welfare.
9. Demonstrate an understanding of the First Amendment freedoms of speech and press along with a commitment to using these freedoms in the service of democracy.
10. Demonstrate the ability to work within a team under deadline pressure.
11. Develop the knowledge to compare and contrast media systems around the world.
12. Learn to value, embrace and support diversity in society and the media.
13. Learn to access, evaluate, synthesize and make use of information in the creation of media products.
14. Become media literate and a critical consumer of media content.

## Accreditation

The S.I. Newhouse School of Public Communications is accredited by the Accrediting Council on Education in Journalism and Mass Communications, and the School is a member of the Association of Schools of Journalism and Mass Communications.

## Undergraduate Education

Lorraine Branham, Dean

### Degree Program Overview

The S.I. Newhouse School of Public Communications offers programs of study that lead to the B.S. degree. Students enrolled in the dual program with the College of Arts and Sciences are granted the degree appropriate to the arts and sciences program of study, either the B.A. or the B.S. Students enrolled in the dual program with the School of Management or with the School of Information Studies also earn the B.S. degree.

Professional coursework in communications may be taken in advertising; broadcast and digital journalism; graphic design; magazine; newspaper and online journalism; photography; public relations; and television, radio and film.

Broad scholarship is stressed in all the programs to ensure that students attain the background necessary for serving in leadership roles in public communications.

All work prepared for classes in the school must be written electronically. Students are encouraged to bring a computer to campus for use in word processing, e-mail, Internet searches, and graphic, multimedia, and photographic presentations.

Public communications students at Syracuse University, as at all accredited schools of public communications, receive a broad education in completing their degree requirements, devoting more than two-thirds of their study to areas other than communications, and earning a minimum of 65 credits in the liberal arts and sciences. Thirty-eight of the 122 credits required for graduation may be taken within the Newhouse School.

### Graduation Requirements

For academic rules and regulations that apply to all Syracuse University students, see the Academic Rules and Regulations section of the Online Course Catalog, which also contains special regulations that apply to all students matriculated in the S.I. Newhouse School of Public Communications. In addition, the following rules and regulations apply to students in the S.I. Newhouse School of Public Communications.

In addition to meeting all general University requirements for graduation, students must complete a minimum of 122 credits of coursework, of which 30 must be taken in residence at Syracuse University. All students must take a minimum of 30 credits in public communications courses.

### SINGLE ENROLLMENT

Students who are singly enrolled in the Newhouse School of Public Communications must satisfy the general requirements of the professional program they are pursuing. Non-public communications requirements assure a broad education, and a minor or an area of specialization provides special competency in a selected field of study outside the school.

Singly enrolled students must:

1. Fulfill 65 credits in the College of Arts and Sciences.

2. Complete the following general skills requirements:

- first semester writing course;
- two courses in foreign languages;
- one course in quantitative skills from the following list: MAT 121, MAT 183, MAT 221, or STT 101;
- one additional skills course in foreign languages, quantitative skills, speech, or computer skills. Courses approved for this requirement include: any 3 to 4 credit foreign language course, ACC 151, ACC 201, CIS 252, CPS 181, CPS 196, IST 195, CRS 225, CRS 325, MAS 261, MAT 122, MAT 221, MAT 222, MAX 201, PSY 252, and SWK 361;
- two writing intensive courses from an approved list. (See The College of Arts and Sciences Core Requirement for listing of writing intensive courses.)

3. Complete the following divisional requirements:

- two courses (6 credits) in social sciences
- two courses (6 credits) in humanities;
- two courses (6 to 8 credits) in natural sciences and mathematics;
- four additional courses (12 to 16 credits) from any of the three areas listed above.

All courses fulfilling divisional requirements must be from the Divisional Lists included in the Newhouse School Fact Book 2014-2015. For updated information, check with the Newhouse Undergraduate Advising and Records Office, 315-443-4722.

4. Complete the requirements of one major plan of study in the Newhouse School of Public Communications. Up to 38 credits in Newhouse may be counted in the 122 credits needed for graduation.

5. Complete a minor or an area of specialization comprising at least 18 credits in a single department in a school or college other than public communications. At least 12 of these credits must be in upper-division courses. This minor or area of specialization may include courses taken to fulfill requirements other than the major. A complete list of minors offered by Syracuse University can be found in the online Course Catalog. The minors in Public Communications Studies and in Communications Photography are intended for students who are not enrolled in the Newhouse School.

6. Complete enough credits in electives to total 122 credits, which is required for graduation. These electives may be taken in any school or college within the University. No more than four credits may be in physical education.

#### DUAL ENROLLMENT

Students dually enrolled in the Newhouse School of Public Communications and another school or college within the University must fulfill the degree requirements of both schools. Upon graduating, they receive a bachelor's degree (one diploma) conferred jointly by the two schools.

Formal dual programs of study are available in cooperation with the College of Arts and Sciences, the School of Information Studies, and the Martin J. Whitman School of Management.

#### ADMISSION TO MAJOR PROGRAMS

Students must declare a major program of study before the end of the sophomore year. Students majoring in photography or graphic design may need a minimum of five semesters on Main Campus to complete the major. Admission to the photography and the graphic design programs is based on acceptance of a portfolio presented after a student completes the first graphic design and photography courses. Admission to the creative emphasis in advertising is based upon a student receiving a grade of B+ or better in ADV 401 and upon a positive committee review of a portfolio.

#### INTRA-UNIVERSITY TRANSFER

To be eligible for internal transfer into the Newhouse School of Public Communications, Syracuse University students must have earned at least 30 credits in courses graded A-F at Syracuse before transferring. Admission is based upon a student's cumulative Syracuse GPA, which includes all SU courses. The GPA required for admission varies each semester depending upon the number of spaces available and the number and strength of the applicants. Students must complete the necessary paperwork no later than the last day of classes of the sophomore year. Students are admitted twice each year. Application deadlines are December 15 and May 1. Applications must be turned in to 316 Newhouse 3, the Newhouse Undergraduate Records Office. Students wishing to major in photography or graphic design may need a minimum of five semesters on Main Campus to complete this major.

#### TRANSFER CREDIT

The Newhouse School accepts a maximum of 12 transfer credits in communications. Transfer credit in communications must be judged applicable to the student's major to be acceptable, in addition to meeting general University criteria for transfer credit.

#### STUDY ABROAD

London, a world center for communications, has a special appeal for public communications students. The SU center in London offers special topics courses in communications, photojournalism and television, radio and film, as well as a diversity course on race, gender and the media. The programs offered abroad are intended for third-year students who have completed introductory courses. Graphic Design and Photography students study abroad in the fall of their senior year.

Public communications students who participate in the London program may take three or six credits in their major area of study. The balance of the academic program consists of courses selected from other components of the program in London, including Arts and Sciences and Management.

Also, through Syracuse University Abroad, the Newhouse School of Public Communications offers public communications courses in Beijing, China; Madrid, Spain, and Strasbourg, France. In addition, students in Madrid may select from courses offered in anthropology, biology, history, economics, political science, religion, history of art, sociology, management, and Spanish language and literature. Those fluent in Spanish may do part of their coursework at the Autónoma University of Madrid. In Strasbourg, students may choose from courses in economics, history of art, French language and literature, history, philosophy, political science, and religion. Those fluent in French may do part of their coursework at the University of Strasbourg.

Students who do not need to take a communications course during their semester abroad also have the option of studying in Santiago, Chile; Florence, Italy; Hong Kong, China; Istanbul, Turkey; or Wrocław, Poland. Direct enrollment in foreign universities and affiliated programs is available in multiple locations in Africa, Asia, Australia, Europe, the Middle East, Latin America and the Caribbean.

In addition to studying abroad during the fall or spring semesters, students may also choose from a variety of summer programs offered through SU Abroad, as well as main campus courses which include a short-term abroad experience as part of the course.

Further information can be found at <http://suabroad.syr.edu>, or contact Syracuse University Abroad, 106 Walnut Place, 315-443-3471.

## STUDY IN LOS ANGELES

Students in the S.I. Newhouse School of Public Communications have the opportunity to study for a semester in Los Angeles. This program, which focuses on the entertainment industry, is open to all students, but particularly accommodates students who are majoring in Television, Radio and Film. Students spend one semester in either the junior or senior year in Los Angeles. During this semester, students engage in a professional internship, as well as take two or three courses in a variety of communications topics taught by professionals prominent in their field. Students may also continue to pursue their liberal arts studies by enrolling in one or more online courses offered by the College of Arts and Sciences. More information can be found at <http://lasemester.syr.edu/>

## NEWHOUSE IN NEW YORK CITY

Newhouse in New York City provides students the opportunity to study for a semester in one of the most vibrant media centers in the world. The program is structured to engage third- or fourth-year students from all Newhouse majors in professional internships, specialized course work and regular interactions with industry leaders. The inaugural class of students will begin in Fall 2014. The program will draw on the strength of the vast network of accomplished SU and Newhouse alumni in the communications industry. Students in the program will spend one semester in New York City, interning two-to-three days per week and taking courses at Syracuse University's Fisher Center in midtown Manhattan. Internships will be designed to match each student's interests and abilities and will span a range of disciplines. Students will also be able to take a variety of online courses offered by SU's College of Arts and Sciences. For more information, contact Shelly Griffin, Assistant Director of Newhouse Off-Campus Programs, at 315-443-4004, [migriffi@syr.edu](mailto:migriffi@syr.edu)

## Undergraduate Minors

### MINOR IN COMMUNICATIONS PHOTOGRAPHY

Coordinator: Karen McGee, Assistant Dean  
315 Newhouse 3, 315-443-1908, [kmcgee@syr.edu](mailto:kmcgee@syr.edu)

#### Goal

The members of the Multimedia Photography and Design Department know that life is enriched with the knowledge of how to make high-quality, meaningful images. The purpose of this minor is to provide photography and multimedia expertise to complement the student's primary area of study.

#### Audience

This minor is intended for Syracuse University students who are not enrolled in the School of Public Communications. Photography is a valuable tool, of benefit to the architect, sociologist, biologist, forester, anthropologist, teacher, fashion designer, and students pursuing many other professions.

#### Entrance Requirements

Applicants are admitted on a space-available basis depending upon cumulative GPA. To be eligible, a student must have completed 30 credits at Syracuse University in courses graded A-F, completed PHO 301 and GRA 217, passed the Multimedia Photography and Design Department's portfolio review, and submitted an application to the Newhouse Undergraduate Advising and Records Office (316 Newhouse 3) by December 15 for spring admission or May 1 for fall admission. Students must declare the communications photography minor no later than the first semester of their junior year.

#### Curriculum Requirements

Students must complete 18 credits of which 12 credits must be at the 300-level or above.

#### Three Required Courses

COM 107 Communications and Society

PHO 301 Introduction to Photography for Multimedia  
PHO 302 Principles of Photography II

#### Fourth Course (Choose One)

PHO 403 Advertising and Illustration Photography I with PHO 560 Advanced Photo Lab  
PHO 405 Photojournalism and Multimedia with PHO 560 Advanced Photo Lab

#### Two Additional Courses

Any Newhouse course for which the student has the prerequisites.

To declare a minor, students must file a declaration form indicating the specific courses selected. The form must be approved by Assistant Dean Karen McGee (315 Newhouse 3) and by the student's home college.

## MINOR IN PUBLIC COMMUNICATIONS STUDIES

Coordinator: Karen McGee, Assistant Dean  
315 Newhouse 3, 315-443-1908, kmcgee@syr.edu

### Goal

The goal of this minor is to permit students to examine how the process of public communications affects society. Students will learn how the various media, including newspapers, magazines, books, radio, television, film, advertising, public relations, photography, graphics, online journalism, social media, and new media influence specific audiences and shape society in the United States and globally.

### Audience

This minor is intended for Syracuse University students who are not enrolled in the School of Public Communications. Students choosing this minor should have an interest in learning more about the social, political, economic, ethical, and legal effects of public communications on their lives as citizens, professionals, and leaders in our society.

### Entrance Requirements

Applicants are admitted on a space-available basis depending upon cumulative GPA. To be eligible, a student must have completed 30 credits at Syracuse University in courses graded A-F and must submit an application to the Newhouse Undergraduate Advising and Records Office (316 N3) by December 15 for spring admission or May 1 for fall admission. Students must declare the public communications minor no later than the first semester of their junior year.

### Curriculum Requirements

Students must complete 18 credits of which 12 credits must be 300-level or above.

Two required courses

COM 107 Communications and Society  
COM 505 Communications Law for Journalists

or

COM 506 Communications Law for Television, Radio, Film

Four Additional Courses From The Following LIST. No More Than One Course May Have A Number Less Than 300. Admission To These Courses Is Based On Space Availability.

ADV 201 Best Advertisements in the Universe  
ADV 206 Advertising Practice in a Diverse Society  
ADV 345 Economics, Persuasion and the Global Marketplace  
COM 300 Effects of Sex in the Media  
COM 337 Real News, Fake News: Literacy for the Information Age  
COM 346 Race, Gender, and the Media  
COM 400 Trendspotting Digital Media  
COM 400 International Communications in the European Media (SU Abroad, Strasbourg)  
COM 400 International Digital and Social Media (SU Abroad, Summer, France)  
COM 427 Social Media for Public Communicators  
GRA 345 Visual Issues in the Media  
ICC 300 New Media Business  
ICC 400 New Media Entrepreneurship  
MAG 205 An Introduction: Editorial, Ethics, and the Business of Magazines  
NEW 345 Critical Perspective on News  
NEW 400 Creating the Next News Start-Up  
PRL 206 Public Relations Principles and Concepts

PRL 345	The Ethics of Advocacy
PRL 400	Introduction to Public Relations Abroad (SU Abroad, London)
TRF 235	Principles and Practices: Television, Radio, Film Industries
TRF 340	Topics in Critical and Historical Perspectives (variable title, repeatable)
TRF 530	Popular Culture Studies (variable title, repeatable)
TRF 560	Topics in International Perspectives (variable title, repeatable)

To declare a minor, students must file a declaration form indicating specific courses selected. The form must be approved by Assistant Dean Karen McGee (315 Newhouse 3) and by the student's home college.

### Los Angeles Semester Option:

Students who have been accepted into the Public Communications Studies minor may choose to complete half the minor by participating in the SU in Los Angeles program. To complete the minor and include the LA option, students must be a junior or a senior and do the following:

- Complete COM 107: Communications and Society before studying in LA;
- Complete TRF 235: Principles and Practices: Television, Radio, Film Industries before studying in LA;
- Apply and be accepted to the LA program;
- Complete TRF 300: Los Angeles Internship while in LA;
- Complete six other credits of TRF course work at the 300-level or above in LA;
- Be a full-time student, registered for no fewer than 12 credits while in LA. Students, therefore, must choose an additional course to study in LA with the advice of their home college. This course may be offered online or in person by any SU college.
- Complete either COM 505: Communications Law for Journalists or COM 506: Communications Law for Television, Radio, Film sometime during senior year.

Application deadlines for the Los Angeles program are in October (for spring) and in February (for fall). The Television, Radio and Film Department holds an information session for interested students at the beginning of each semester. For more information, contact Shelly Griffin in 318 Newhouse 3 at 443-4004, [migriffi@syr.edu](mailto:migriffi@syr.edu).

## Facilities

The S.I. Newhouse School's buildings are known on campus as Newhouse 1, 2, and 3. All three buildings have faculty offices and classrooms capable of supporting Web, KeyNote, PowerPoint and advanced multimedia presentations.

Newhouse 1 contains administrative offices; computerized news writing and editing laboratories with motion graphics, 3D animation, and research tools, such as SPSS. Newhouse 1 also houses multimedia laboratories supporting digital imaging, Final-Cut© editing, digital sound editing, and Adobe Creative Suites©; an advertising/public relations campaigns laboratory; and the Bill Glavin Magazine Lab, a collaborative space for magazine writing and production. There is a large professional photography studio fully equipped with Profoto D4 strobe equipment and lighting attachments, as well as HD SLR and digital Mamiya medium-format camera gear. Exhibition space and a portfolio prep center with digital ink jet printers are also housed in Newhouse 1.

Newhouse 2 contains an extensive field-equipment facility that monitors the use of dozens of digital video camera systems (HD tape and DSLR formats), lights, microphones, and other production accessories. Post-production facilities include sixty HD editing stations (AVID©, Adobe Premiere, and Final Cut Pro©), a 16-channel, digital music-recording studio; two digital post-production sound studios equipped with Pro Tools© HD and 5.1 surround sound capabilities; an extensive sound effects and music collection; Photoshop©, After Effects©, and Cinema 4D graphic systems; and an encoder and server for video streaming on the Web. The Newhouse School is an AVID© and Apple authorized training partner and offers courses that lead to AVID© and Final Cut Pro© certification. There is a multi-room complex for teaching broadcast journalism that contains a newsroom and writing laboratories equipped with Electronic News Production System© (ENPS); a radio production lab where students edit digital news stories using Audacity©; and screening and viewing rooms. In addition, students are involved extensively in the University's Orange Television Network <http://orangetv.syr.edu/>, which is headquartered in Newhouse 2.

Until September 2014, parts of Newhouse 2 will be undergoing extensive studio renovations which will bolster the School's ability to support cross-disciplinary forms of content creation, from television entertainment to news, film, visual effects, set augmentation, press conferences, commercials, green screen, and more. This new generation, "anything-anywhere" five-studio complex is designed to support the wide and varied needs of storytellers in all fields of study.

Newhouse 3 houses a 300-seat auditorium; a collaborative media suite in which students can build Web-based, interactive information sites; executive education interactive classrooms; student lounges; spaces for media-related student activities; and a research center. A dining and social area connects all three buildings in the center of the complex. A glass-enclosed bridge connecting Newhouse 1 and 2 provides a walkway with a winter garden setting for studying or socializing.

## Research Centers

BLEIER CENTER FOR TELEVISION AND POPULAR CULTURE

The S.I. Newhouse School is the home of the Bleier Center for Television and Popular Culture. The center maintains a large archive of television scripts and history, including videotaped memories of such television pioneers as Steve Allen, Daniel Schorr, and Betty White. The center presents major industry figures as artists-in-residence, sponsors symposia on critical issues in television, and oversees the publication of a Syracuse University Press series of books on television. For further information contact Robert Thompson, director, 315-443-4077, <http://tvcenter.syr.edu/>

### CENTER FOR DIGITAL MEDIA ENTREPRENEURSHIP

The Newhouse Center for Digital Media Entrepreneurship provides courses, consulting, and connections to encourage Newhouse students to start businesses and to identify new career opportunities in a fast-changing media industry. The Center teaches digital media trends, business modeling, and the latest in venture development. The work of the center is reinforced through one-on-one coaching and supporting resources on- and off-campus including mentoring, team development, assistance with legal, funding, technology and management issues, and more. Through internships and events (such as South by Southwest in Austin, Internet Week in NY), students are exposed to digital media startups and the start-up culture. In promoting digital media innovation and entrepreneurship, the Center also connects students to alumni and others who are innovating and changing the media industry. For further information contact Sean Branagan, director, 315-443-6310; e-mail [startups@syr.edu](mailto:startups@syr.edu) or visit <http://www.newhousestartups.com/>

### NEWhouse SpoRTS Media Center

The Newhouse Sports Media Center builds upon the Newhouse School's long history and strengths in sports communications. The Center provides courses across the spectrum of media-- courses such as, sports writing across platforms, sports reporting, sports production, play-by-play announcing, interviewing, as well as internship experiences to students in a variety of fields. The Center fosters student and alumni interaction and academic-industry partnerships through an alumni board. The Newhouse Sports Media Center sponsors special events and frequent guest lectures on current sports issues. Broadcast journalist and professor of practice, John Nicholson, the Center director, can be reached at [jsnich01@syr.edu](mailto:jsnich01@syr.edu), 315-443-4065. For further information, visit: <http://newhousesports.syr.edu/>

### TULLY CENTER FOR FREE SPEECH

The S.I. Newhouse School is the home of the Tully Center for Free Speech, which educates students and the public about the value of free speech. The Center sponsors educational programs and conducts research related to media law and free speech, serves as a clearinghouse on media law issues in New York State, and supports interdisciplinary work on free speech topics at Syracuse University. For further information contact Roy Gutterman, Director at 315-443-3523, <http://tully.syr.edu/>

### THE W2O--NEWHOUSE CENTER FOR SOCIAL COMMERCE

The W2O Newhouse Center for Social Commerce is the newest center at the Newhouse School. It is devoted to the convergence of communications with "big data," business analytics, digital technology and social media in the emerging area of "social commerce." Established in 2012, with the support of The W2O Group headquartered in San Francisco, the Center brings together communications experts from the industry with faculty and students at Newhouse and across campus. Housed in the Newhouse School's Public Relations Department, the Center makes possible interdisciplinary course offerings, guest speaker visits to campus, applied research projects for clients, training programs in cutting-edge techniques, and internships in W2O offices across the United States and abroad. For more information, contact Maria Russell, director, Newhouse Executive Education Programs at 315-443-4066.

### Library Resources And Services

Syracuse University Library supports teaching, learning, and research at the S.I. Newhouse School of Public Communications by providing a wide array of research support services, facilities, and on-site and online resources <http://library.syr.edu/>

Library collections in public communications cover advertising, broadcast and digital journalism, print journalism, communication theory and research, law of the press, public relations and public diplomacy, printing, photography, film, and freelance writing. Communications-related databases, accessible from any location on or off campus, include LexisNexis Academic, Factiva, Simmons OneView, comScore, Library PressDisplay, ProQuest Historical Newspapers, SCOLA, AP Images, NBC Learn Higher Ed, Vanderbilt University's Television News Archive, JSTOR, Communications & Mass Media Complete, World Advertising Research Center, Ad\$ponder, Adforum, ProQuest Dissertations & Theses Full Text, Web of Science, Scopus, and many more. In addition, the library offers ebooks in the hundreds of thousands and substantial collections of videos and DVDs, sound recordings, and media trade magazines, collections of the memoirs of foreign correspondents; and private papers of American newsmen, broadcasters, authors, and cartoonists. Physical facilities offer extensive hours, including 24-hour access most days, open collaborative study areas, teaching and seminar spaces, quiet and silent reading spaces, information technology loans, computer labs, reservable group study rooms, and events spaces for student, librarian or faculty use.

The Library's Special Collections Research Center (SCRC) collects the history of American broadcasting. Recent acquisitions include the personal papers of iconic broadcast journalist Ted Koppel. That archive includes near complete runs of Nightline and The Koppel Report. SCRC is also the repository for the papers of several American columnists of national note—Drew Pearson, Westbrook Pegler, George Sokolsky, Harold Ickes, Dorothy Thompson, and Arthur Brisbane; an outstanding collection of prints, negatives, and personal papers of noted photographer Margaret Bourke-White, as well as personal papers, scripts, and audio-visual media of communications personalities Norman Corwin, Mike Wallace, Dick Clark, Long John Nebel, and Fulton Lewis Jr., as well as those involved in the business of television, such as Ed Bleier. The SCRC also maintains an extensive archive of scripts, videos, and personal papers in the field of television history, including scripts and production notes from NYPD Blue and Party of Five; scripts and videotapes of St. Elsewhere; and interviews by critics Arthur Unger and Steven H. Scheuer.

## Academic Offerings

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## Advertising

Contact: James Tsao, Chair  
318 Newhouse 3, 315-443-7362

Faculty Beth Egan, Amy P. Falkner, Carla V. Lloyd, Kevin O'Neill, Edward W. Russell, Brian Sheehan, James Tsao

Recognized as one of the top advertising and digital branding programs in the country, the advertising major in the S.I. Newhouse School of Public Communications helps students to become "big thinkers" and future advertising leaders. The curriculum provides an interdisciplinary approach to learning, introducing students to both theory and practice through project-based experiences using real clients. Besides taking core courses in advertising and communications, students are encouraged to use their electives to develop an emphasis within their major with the help of their advisors.

This major requires 31-37 credits in communications, depending upon the nature of the three electives which students choose to develop their advertising emphasis.

### MAJOR REQUIREMENTS

#### Required Courses (25 credits)

ADV 206	Advertising Practice in a Diverse Society
ADV 208	The "Big Idea" in Advertising
ADV 307	Conceptual and Creative Thinking in Media Planning
ADV 509	Advertising Research and Planning: A Case Study Approach
COM 101	Practical Grammar for Public Communications (1 credit)
COM 107	Communications and Society
COM 117	Multimedia Storytelling
COM 344	Diversity and Media Issues (1 credit, plus 3 credits of Arts and Sciences)*
COM 408	Advertising and Public Relations Law (2 credits)
GRA 217	Introduction to Graphic Design

\*COM 346 Race, Gender, and the Media or COM 348 Beauty and Diversity in Fashion Media can be used to satisfy the diversity requirement instead of COM 344 and an approved course in the College of Arts and Sciences.

#### Capstone Requirement: Choose One (3 credits)

ADV 425	Integrated Advertising Campaigns
PRL 325	Public Relations Campaign Planning and Execution

#### Additional Requirements

Global Experience

#### Emphasis (9 credits)

Students are expected to complete an emphasis which complements their individual career goals. Faculty advisors will work with students to put together a series of three courses to fulfill the requirement. At least one of the three courses must be a Newhouse course. Emphases may include, but are not limited to, account management, copywriting and art directing, media/ communications planning, digital advertising, account planning, health promotion, and other professional interests that students may wish to pursue.

Total: 31-37 Newhouse credits required.

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## Broadcast And Digital Journalism

Contact: Chris Tuohey, Chair  
318 Newhouse 3, 315-443-4118

Faculty Hubert Brown, Michael Cremedas, Frank Currier, Barbara C. Fought, Dona Hayes, Keren Henderson, Suzanne Lysak, John Nicholson, Simon Perez, Donald C. Torrance, Chris Tuohey, Randy Wenner

Students in the broadcast and digital journalism program learn writing, information gathering and reporting, formatting, editing, anchoring, and producing for both traditional and digital media platforms. Students use all the latest technologies to report and produce news content including Dejero® portable, live reporting equipment and several social media platforms. Students also study critical issues (including ethical dilemmas) faced in today's complex communications environment. "Hands-on" experience is emphasized in the broadcast and digital journalism curriculum.

Majors are encouraged to take advantage of University-sponsored internships at broadcast stations (both local and network) across the country.

Additionally, students have the opportunity to do extracurricular work at campus radio and television stations.

## MAJOR REQUIREMENTS

This is a 38-credit major. The sequence of courses that follows requires a minimum of four Main Campus semesters to complete. Students majoring in broadcast and digital journalism will take the following courses:

### Required courses (29 credits)

BDJ 204	News in a Multimedia World
BDJ 265	Broadcast Journalism Studio Production (1 credit)
BDJ 311	Broadcast and Digital News Writing
BDJ 364	Radio and Digital Audio News Reporting
BDJ 464	Television and Digital News Reporting
COM 101	Practical Grammar for Public Communications (1 credit)
COM 107	Communications and Society
COM 117	Multimedia Storytelling
COM 344	Diversity and Media Issues (1 credit, plus 3 credits of Arts and Sciences)*
COM 505	Communications Law for Journalists
MPD 205	Photography for Broadcast News (2 credits)
NEW 345	Critical Perspective on News

\*COM 346 Race, Gender, and the Media or COM 348 Beauty and Diversity in Fashion Media can be used to satisfy the diversity requirement instead of COM 344 and an approved course in the College of Arts and Sciences.

### Capstone Requirement (3 credits)

BDJ 465	Television and Digital News Producing and Presenting
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### Additional Requirements

Global Experience

### Newhouse Electives (6 credits)

Broadcast and digital journalism students choose two Newhouse electives. In consultation with their advisers, students should select as Newhouse electives courses that expand and enrich their knowledge of communications.

Total: 38 Newhouse credits required.

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## Communications Photography Minor

Coordinator: Karen McGee, Assistant Dean  
315 Newhouse 3, 315-443-4622, [kmcgee@syr.edu](mailto:kmcgee@syr.edu)

### Curriculum Requirements

Students must complete 18 credits of which 12 credits must be at the 300-level or above.

#### Three Required Courses

COM 107 Communications and Society  
PHO 301 Introduction to Photography for Multimedia with PHO 556 Basic Photo Lab  
PHO 302 Principles of Photography II

#### Fourth Course (Choose One)

PHO 403 Advertising and Illustration Photography I with PHO 560 Advanced Photo Lab  
PHO 405 Photojournalism and Multimedia with PHO 560 Advanced Photo Lab

#### Two Additional Courses

Any Newhouse course for which the student has the prerequisites.

To declare a minor, students must file a declaration form indicating the specific courses selected. The form must be approved by Assistant Dean Karen McGee (315 Newhouse 3) and by the student's home college.

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# Graphic Design

Contact: Bruce Strong, Chair  
Department of Multimedia Photography and Design  
318 Newhouse 3, 315-443-2304

Faculty Mike Davis, Seth Gitner, Ken Harper, Gregory Heisler, Lawrence Mason Jr., Bruce Strong, David C. Sutherland, Sherri Taylor

Students interested in visual communications are drawn to the graphic design program because of its emphasis on both design, image, interactivity, motion graphics, and communications. Students can develop design skills for both print and multimedia environments, as they also develop communications writing skills, photography skills, and knowledge of communications law, ethics, and business.

Admission to the program is based on acceptance of a portfolio of photography, graphics work, and communications writing after completing GRA 217 and PHO 301.

## MAJOR REQUIREMENTS

Students majoring in graphic design must complete 38 credits within the Newhouse School of Public Communications. The major requirements follow.

### Required courses (32 credits)

COM 101	Practical Grammar for Public Communications (1 credit)
COM 107	Communications and Society
COM 117	Multimedia Storytelling
COM 344	Diversity and Media Issues (1 credit, plus 3 credits of Arts and Sciences)*
COM 505	Communications Law for Journalists or
COM 506	Communications Law for Television, Radio, Film
GRA 217	Introduction to Graphic Design
GRA 356	Type and Image for Multimedia (2 credits)
GRA 437	Typographic Design
GRA 447	Motion Graphics and User Experience
GRA 477	Graphic Design Problems
NEW 205	News Writing**
PHO 301	Introduction to Photography for Multimedia
PHO 357	Photography for Graphic Design (1 credit)

\*COM 346 Race, Gender, and the Media or COM 348 Beauty and Diversity in Fashion Media can be used to satisfy the diversity requirement instead of COM 344 and an approved course in the College of Arts and Sciences.

\*\*Or other Newhouse writing class by petition

### Capstone Requirement (3 credits)

MPD 478	Graphic Design Capstone
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### Additional Requirements

#### Global Experience

EEE 370	Introduction to Entrepreneurship and Emerging Enterprises (Whitman School of Management)
PHI 293	Ethics and the Media Professions (College of Arts and Sciences)

### Newhouse elective (3 credits)

Graphic design majors are required to take one Newhouse elective.

Total: 38 Newhouse credits required.

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# Magazine

Contact: Melissa Chessher, Chair  
318 Newhouse 3, 315-443-4004

Faculty Harriet Brown, Melissa Chessher, Aileen Gallagher, Adam R. Peruta, Hillary Rosner, James Shahin, Corey Takahashi

Students seeking a bachelor's degree in magazine face realistic and exacting assignments designed to prepare them for careers in the magazine field, both in print and online. In small classes, students develop and perfect their ability to research, write, and edit. In addition, they study areas such as graphics,

multimedia, law, ethics, and social media. Students must take MAG 406 and MAG 408 during different semesters.

## MAJOR REQUIREMENTS

Students are required to complete 35 Newhouse credits in the magazine major. The major requirements are outlined below.

### Required Courses (29 credits)

COM 101	Practical Grammar for Public Communications (1 credit)
COM 107	Communications and Society
COM 117	Multimedia Storytelling
COM 344	Diversity and Media Issues (1 credit, plus 3 credits of Arts and Sciences)*
COM 505	Communications Law for Journalists
GRA 217	Introduction to Graphic Design
MAG 205	An Introduction: Editorial, Ethics, and the Business of Magazines
MAG 406	Magazine Article Writing
MAG 408	Magazine Editing
NEW 205	News Writing
NEW 305	Reporting

\*COM 346 Race, Gender, and the Media or COM 348 Beauty and Diversity in Fashion Media can be used to satisfy the diversity requirement instead of COM 344 and an approved course in the College of Arts and Sciences.

### Capstone Requirement: Choose One (3 credits)

MAG 407	Writing Portfolio
MAG 409	FIRST ISSUE: Starting a Magazine
ICC 505	Web Journalism and Innovation

### Additional Requirements

Global Experience

Newhouse Elective (3 credits)

Magazine majors are required to take one Newhouse elective.

Total: 35 Newhouse credits.

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## Newspaper And Online Journalism

Contact: Steve Davis, Chair  
318 Newhouse 3, 315-443-3371

Faculty Lorraine Branham, Steve Davis, Joan A. Deppa, Seth Gitner, Roy Gutterman, Joel Kaplan, Johanna Keller, Robert E. Lloyd, Stephen M. Masielat, R. Gustav Niebuhr, Dan Pacheco

Students in the newspaper and online journalism program learn to meet the challenges of the complex and evolving print industry, which remains the provider of news online. Classes cover how to produce content using all the written and visual tools, and how to deliver it and design it for all the platforms where news is featured. Emphasis remains on learning the traditional core skills such as interviewing, reporting and writing. Students produce multimedia content for the Newhouse School's news website, <http://www.thenewshouse.com/>, as well as for local media outlets that participate in a strong internship program. Studies also include diversity issues, law and ethics.

## MAJOR REQUIREMENTS

The newspaper and online journalism major requires 38 Newhouse credits. The major requirements are outlined below. NEW 305 must be completed no later than the first semester of the senior year.

### Required Courses (32 credits)

COM 101	Practical Grammar for Public Communications (1 credit)
COM 107	Communications and Society
COM 117	Multimedia Storytelling
COM 344	Diversity and Media Issues (1 credit, plus 3 credits of Arts and Sciences)*
COM 505	Communications Law for Journalists
GRA 217	Introduction to Graphic Design
MPD 361	Visual News Reporting
NEW 205	News Writing

NEW 305	Reporting
NEW 345	Critical Perspective on News
NEW 405	Advanced Reporting
NEW 496	Senior Portfolio (0 credits)
NEW 508	Newspaper Editing

\*COM 346 Race, Gender, and the Media or COM 348 Beauty and Diversity in Fashion Media can be used to satisfy the diversity requirement instead of COM 344 and an approved course in the College of Arts and Sciences.

Capstone Requirement: (Choose One, 3 credits)

- NEW 509 Advanced Newspaper Editing
- NEW 530 Topics in Specialized Reporting (variable title)
- NEW 535 Newspaper and Magazine Practicum

Additional Requirements

Global Experience

Newhouse Elective (3 credits)

Newspaper and online journalism majors are required to take one Newhouse elective.

Total: 38 Newhouse credits.

## Photography

Contact: Bruce Strong, Chair  
 Department of Multimedia Photography and Design  
 318 Newhouse 3, 315-443-2304

Faculty Mike Davis, Seth Gitner, Ken Harper, Gregory Heisler, Lawrence Mason Jr., Bruce Strong, David C. Sutherland, Sherri Taylor

The photography program offers two professionally oriented sequences: illustration photography and photojournalism. Admission to the photography program is based on acceptance of a portfolio of photography, graphics, and communications writing after completing GRA 217 and PHO 301. Both the illustration photography and the photojournalism major tracks emphasize multimedia storytelling and production using still imaging, video and sound to produce final products for print and the web. Photographers work closely with graphic designers and students and faculty from other Newhouse majors. Students also study entrepreneurship, communications law and ethics, as well as develop communications writing and graphic design skills.

### Illustration Photography

The sequence in illustration photography covers the areas of advertising, commercial, fashion, and magazine illustration photography for print and the Web.

### Photojournalism

The sequence in photojournalism is designed for students interested in visual journalism both online and in print.

## MAJOR REQUIREMENTS

Photography majors must complete 38 credits within the Newhouse School of Public Communications and other requirements as outlined below.

Requirements for both sequences (23 credits):

COM 101	Practical Grammar for Public Communications (1 credit)
COM 107	Communications and Society
COM 117	Multimedia Storytelling
COM 344	Diversity and Media Issues (1 credit, plus 3 credits of Arts and Sciences)*
COM 505	Communications Law for Journalists**
GRA 217	Introduction to Graphic Design
GRA 357	Type and Image for Photography (1 credit)
NEW 205	News Writing
PHO 301	Introduction to Photography for Multimedia
PHO 356	Photography for Multimedia (2 credits)

\*COM 346 Race, Gender, and the Media or COM 348 Beauty and Diversity in Fashion Media can be used to satisfy the diversity requirement instead of COM 344 and an approved course in the College of Arts and Sciences.

\*\*Photography majors completing the Illustration Photography sequence have a choice of COM law courses, either COM 505 or COM 506:

Communications Law for Television, Radio, Film.

#### Additional Requirements for Illustration Photography (12 credits)

PHO 403 Advertising and Illustration Photography I  
PHO 404 Advertising and Illustration Photography II  
PHO 405 Photojournalism and Multimedia

#### Capstone Requirement:

MPD 406 Advertising and Illustration Photography Capstone

#### Additional Requirements for Photojournalism (12 credits)

PHO 403 Advertising and Illustration Photography I  
PHO 405 Photojournalism and Multimedia  
PHO 425 Picture and Multimedia Editing

#### Capstone Requirement:

MPD 426 Multimedia and Photojournalism Capstone

#### Additional Requirements for both sequences

#### Global Experience

EEE 370 Introduction to Entrepreneurship and Emerging Enterprises (Whitman School of Management)  
PHI 293 Ethics and Media Professions (College of Arts and Sciences)

#### Newhouse Elective for Both Sequences (3 credits)

Photography majors are required to take one Newhouse elective.

Total: 38 Newhouse credits required.

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## Public Communications Studies Minor

Coordinator: Karen McGee, Assistant Dean  
315 Newhouse 3, 315-443-4622, [kmcgee@syr.edu](mailto:kmcgee@syr.edu)

### Curriculum Requirements

Students must complete 18 credits of which 12 credits must be 300-level or above.

#### Two Required Courses

COM 107 Communications and Society  
COM 505 Communications Law for Journalists  
or  
COM 506 Communications Law for Television, Radio, Film

Four Additional Courses From The Following LIST. No More Than One Course May Be Below 300-Level. Admission To These Courses Is Based On Space Availability.

ADV 201 Best Advertisements in the Universe  
ADV 206 Advertising Practice in a Diverse Society  
ADV 345 Economics, Persuasion and the Global Marketplace  
COM 300 Effects of Sex in the Media  
COM 337 Real News, Fake News: Literacy for the Information Age  
COM 346 Race, Gender, and the Media  
COM 400 Trendspotting Digital Media  
COM 400 International Communications in the European Media (SU Abroad, Strasbourg)  
COM 400 International Digital and Social Media (SU Abroad, Summer, France)  
COM 427 Social Media for Public Communicators  
GRA 345 Visual Issues in the Media  
ICC 300 New Media Business  
ICC 400 New Media Entrepreneurship  
MAG 205 An Introduction: Editorial, Ethics, and the Business of Magazines  
NEW 345 Critical Perspective on News

NEW 400 Creating the Next News Start-Up  
 PRL 206 Public Relations Principles and Concepts  
 PRL 345 The Ethics of Advocacy  
 PRL 400 Introduction to Public Relations Abroad (SU Abroad, London)  
 TRF 235 Principles and Practices: Television, Radio, Film Industries  
 TRF 340 Topics in Critical and Historical Perspectives (variable title, repeatable)  
 TRF 530 Popular Culture Studies (variable title, repeatable)  
 TRF 560 Topics in International Perspectives (variable title, repeatable)

To declare a minor, students must file a declaration form indicating specific courses selected. The form must be approved by Assistant Dean Karen McGee (315 Newhouse 3) and by the student's home college.

### Los Angeles Semester Option:

Students who have been accepted into the Public Communications Studies minor may choose to complete half the minor by participating in the SU in Los Angeles program. To complete the minor and include the LA option, students must be a junior or a senior and do the following:

- Complete COM 107: Communications and Society before studying in LA;
- Complete TRF 235: Principles and Practices: Television, Radio, Film Industries before studying in LA;
- Apply and be accepted to the LA program;
- Complete TRF 300: Los Angeles Internship while in LA;
- Complete six other credits of TRF course work at the 300-level or above in LA;
- Be a full-time student, registered for no fewer than 12 credits while in LA. Students, therefore, must choose an additional course to study in LA with the advice of their home college. This course may be offered online or in person by any SU college.
- Complete either COM 505: Communications Law for Journalists or COM 506: Communications Law for Television, Radio, Film sometime during senior year.

Application deadlines for the Los Angeles program are in October (for spring) and in February (for fall). The Television, Radio and Film Department holds an information session for interested students each semester. For more information, contact Shelly Griffin, Assistant Director of Off-Campus Programs, in 318 Newhouse 3 at 443-4004, [migriffi@syr.edu](mailto:migriffi@syr.edu).

## Public Relations

Contact Maria Russell, Chair  
 318 Newhouse 3, 315-443-7401

Faculty Rochelle L. Ford, Guy J. Golan, William Jasso, Hua Jiang, Dennis F. Kinsey, Robert M. Kucharavy, Joon Soo Lim, Maria P. Russell

Public relations is the management of communication between an organization and its publics. The public relations program provides students with instruction in the principles, processes, skills, and management of public relations programs designed to attain or maintain inter-organizational or social accord. Students learn both the basic skills of writing, graphics, and oral presentation, as well as the managerial functions of planning, research, campaign development, and evaluation. The program prepares students with a solid ethical foundation, an understanding of diversity and multiculturalism, and an understanding of the use of social media for strategic engagement with an organization's publics. This is a 34-credit major. Students majoring in Public Relations must take the following requirements, and they are encouraged to take internships and other specialized courses as electives.

### MAJOR REQUIREMENTS

Required Courses (31 credits)

COM 101 Practical Grammar for Public Communications (1 credit)  
 COM 107 Communications and Society  
 COM 117 Multimedia Storytelling  
 COM 344 Diversity and Media Issues (1 credit, plus 3 credits of Arts and Sciences)\*  
 COM 408 Advertising and Public Relations Law (2 credits)  
 GRA 217 Introduction to Graphic Design  
 PRL 206 Public Relations Principles and Concepts  
 PRL 214 Writing for News and Public Relations in a Digital Age  
 PRL 215 Advanced Public Relations Writing for a Digital World  
 PRL 315 Public Relations Research  
 PRL 325 Public Relations Campaign Planning and Execution  
 PRL 345 Ethics of Advocacy

\*COM 346 Race, Gender, and the Media or COM 348 Beauty and Diversity in Fashion Media can be used to satisfy the diversity requirement instead of COM 344 and an approved course in the College of Arts and Sciences.

Capstone Requirement (3 credits)

Additional Requirement

Global Experience

Total: 34 Newhouse credits required.

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## Television, Radio And Film

Contact: Michael Schoonmaker, Chair  
318 Newhouse 3, 315-443-9240

Faculty Frank Biocca, Richard L. Breyer, Fiona Chew, Jenny Doctor, Richard Dubin, Larry Elin, Keith Giglio, Tula Goenka, Sharon R. Hollenback, Barbara E. Jones, Patricia H. Longstaff, Douglas Quin, Michael Schoonmaker, Evan Smith, Robert J. Thompson, Donald C. Torrance

The Television, Radio and Film curriculum engages students in the vital dimensions of 21st-century storytelling: critical thinking, writing, foundations of multimedia storytelling, diversity, law and policy, visual and aural aesthetics, business principles and practices, collaboration, global perspective, ethics and a capstone project.

The heart of the major is the purposeful selection of specialized, elective coursework from a broad range of topics. TRF faculty advisors connect each student to coursework that will best meet their individual interests and needs. The TRF department offers a number of popular culture courses in association with the Bleier Center for Television and Popular Culture, <http://tvcenter.syr.edu/>

Students are encouraged to participate in our Semester in Los Angeles ( <http://lasemester.syr.edu/> ) and study abroad opportunities ( <http://studyabroad.syr.edu/> ).

Alumni have gone on to pursue a wide variety of careers as producers, writers, directors, designers, agents, editors, executives, attorneys, and media educators.

### MAJOR REQUIREMENTS

This is a 38-credit major. Students majoring in Television, Radio and Film must fulfill the following requirements:

#### Required Courses (23 credits)

- COM 101 Practical Grammar for Public Communications (1 credit)
- COM 107 Communications and Society
- COM 117 Multimedia Storytelling
- COM 344 Diversity and Media Issues (1 credit, plus 3 credits of Arts and Sciences)\*
- COM 506 Communications Law for Television, Radio, Film
- TRF 205 Sight, Sound and Motion
- TRF 211 Screenwriting
- TRF 235 Principles and Practices: Television, Radio, Film Industries
- TRF 340 Topics in Critical and Historical Perspectives

\*COM 346 Race, Gender, and the Media or COM 348 Beauty and Diversity in Fashion Media can be used to satisfy the diversity requirement instead of COM 344 and an approved course in the College of Arts and Sciences.

#### Capstone Requirement: Choose One (3 credits)

- TRF 400 Human-Computer Interaction
- TRF 461 Advanced Management Seminar
- TRF 462 Advanced Television Production
- TRF 467 Screenwriting Master Class
- TRF 468 Advanced Audio
- TRF 469 Advanced Filmmaking
- TRF 483 Communications Industry Frontiers
- TRF 499 Honors Capstone Project
- TRF 500 Entertainment Industry Capstone (LA semester)

#### Additional Requirements

Global Experience

PHI 293 Ethics and the Media Professions (College of Arts and Sciences)

### Specialized Electives (12 credits)

TRF majors work closely with their academic advisor to tailor upper-division Newhouse course work (300-level or higher) to their individual learning and career goals. Students are welcome to explore other areas of communications outside of TRF, as long as they work closely with their advisor to secure permission. Specialized electives in TRF include more than 65 courses in such topics as directing; producing; radio; music underscoring and recording; sound for film; visual effects; animation; a range of popular culture topics in authorship, genre studies and critical issues; stereoscopic production; cinematography; editing; casting and working with actors; sports production; reality production; motion graphics; TV show production (various genres); production management; specialized forms of screenwriting; audio; filmmaking; TV and online process and technique; global perspectives; TV and film business; development; and internships.

Total: 38 Newhouse credits required.

# Courses

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## Advertising

### ADV 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ADV 201 Best Advertisements in the Universe 3 Y

Exploration of ads from all around the world analyzing their content, style and effectiveness across cultures. Learn how award-winning ads are developed, produced and their impact. For non-majors.

### ADV 206 Advertising Practice in a Diverse Society 3 S

Introduce students to the role of advertising in business. Students will learn basic concepts, regulations, ethics, and diversity associated with advertising as well as how advertising fits into the marketing structure of most industries.

### ADV 208 The Big Idea in Advertising 3 S

A look at the most creative advertising strategies and advertising agencies. Develop a critical understanding of a Big Idea in advertising; how it's developed, nurtured, exploited and the impact it can have. PREREQ: ADV 206.

### ADV 300 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ADV 307 Conceptual and Creative Thinking in Media Planning 3 S

Students learn media planning fundamentals to understand how different media are used to enhance the persuasive power of the advertising message. The class will prepare a media plan to support a marketing communications campaign. PREREQ: ADV 208.

### ADV 345 Economics, Persuasion, and the Global Marketplace 3 Y

Double Numbered with: ADV 645

Persuasive communications' impact on and relationship to society. Evaluation of effects of advertising on national and global economies. Critical evaluation of persuasive appeals. Discussion of marketing to children, political persuasion, alcohol and tobacco promotion. Additional work required of graduate students.

PREREQ: COM 107.

### ADV 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ADV 401 Portfolio I 3 S

Major components that go into creating print ad campaigns including benefit, strategy, conceptual thinking, art direction, and copywriting.

PREREQ: ADV 208.

### ADV 421 Portfolio II 3 S

Students begin to craft their portfolios. They will complete a variety of advertising print campaigns that will readily demonstrate a strong command of layout, design, copywriting, and conceptual thinking.

PREREQ: ADV 401.

### ADV 425 Integrated Advertising Campaigns 3 S

Function as a full service advertising agency, encompassing all the disciplines studied during the student's tenure at Newhouse. Students work with clients and execute a complete campaign, from strategy to creative executions and a media plan.

PREREQ: ADV 307 OR 421.

### ADV 431 Portfolio III 3 S

This course will help students complete their portfolios which will consist of 20 advertisements, including three complete ad campaigns. Oral presentation, job hunting, and the analysis of various ad markets.

PREREQ: ADV 421.

### ADV 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### ADV 500 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### ADV 507 Strategic Media Planning 3 Y

Students will develop a strategic and advanced working knowledge of advertising media planning and buying, audience measurement, media research, new media concepts, audience segmentation and sales presentation.

PREREQ: ADV 307.

### ADV 509 Advertising Research and Planning: A Case Study Approach 3 S

Students will learn how to apply theory and practice of advertising research by analyzing cases and studies in marketing communications and academic publications. Account planning, qualitative, and quantitative research skills are emphasized.

PREREQ: ADV 208.

### ADV 523 Digital Branding and Strategy 3 Y

Crosslisted with: ICC 523

Examines the transformative role that digital media (websites, social networks, blogs, wikis, mobile) have on the advertising industry. How consumers are reached and interpret the message from these digital platforms.

PREREQ: ADV 307 OR ADV 604.

### ADV 526 Fashion Advertising and Promotion 3 Y

How advertising and promotion build fashion brands, ranging from top designers to local retailers. Students learn how to apply the comprehensive strategic planning process used in advertising to build fashion brands.

## Broadcast And Digital Journalism

### BDJ 200 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### BDJ 204 News in a Multimedia World 3 S

The basics of cross-media writing for the web; and understanding how community institutions work and how to cover stories involving these institutions using multi-media.

### BDJ 265 Broadcast Journalism Studio Production 1 S

Students are the technical support for the department's daily newscast. Emphasizing both studio positions, such as camera and floor managing, as well as control room positions, such as technical director.

### BDJ 300 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**BDJ 311 Broadcast and Digital  
Newswriting 3 S**

Basic style and construction of broadcast and digital news stories. Composing and writing radio, television, and web news stories under deadline pressure. Techniques of broadcast interviewing and information gathering.  
PREREQ: BDJ 204 OR NEW 205 AND  
COREQ: BDJ 364.

**BDJ 330 Selected Topics in Specialized  
Reporting I 3 Y**

Introductory specialized reporting course, concentrating on a specific topic, such as sports journalism, and/or utilizing basic or intermediate-level technologies.  
PREREQ: BDJ 364. R1, 6 credits maximum

**BDJ 345 Critical Perspective on News 3 S**  
Crosslisted with: NEW 345

Key issues confronting working journalists and news consumers. Evaluation of media performance, ethics, and practices, focusing on how well they serve society; research, site visits, discussion of written papers.  
PREREQ: COM 107.

**BDJ 364 Radio and Digital Audio News  
Reporting 3 S**

Gather, produce and report news in the radio and digital audio medium, including field experiences and newscast production in laboratories. Students will be required to analyze political stories, environmental issues, and other issues facing communities.  
PREREQ: BDJ 204 OR NEW 205 AND  
COREQ: BDJ 311.

**BDJ 400 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**BDJ 464 Television and Digital News  
Reporting 3 S**

Gathering and reporting news using electronic means. Edited TV and web news reports, under deadline pressure are final products. Tape, as well as live reporting exercises. Coordination with television newscasts.  
PREREQ: BDJ 364 AND (MPD 205 OR PHO 200).

**BDJ 465 TV & Digital News Producing and  
Presenting 3 S**

Writing, story selection, positioning of local and national stories; plus weather, sports, producing, and presenting. Presentation of news on the Internet and on-set taping of a complete news program.  
PREREQ: BDJ 464.

**BDJ 500 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**BDJ 510 Topics in Specialized Practices 1  
Y**

Development of skills that enhance the news product. Different sections could focus on different specialized practices such as internet research or vocal performance  
PREREQ: BDJ 204 OR NEW 205 OR BDJ 663. R2, 3 credits maximum

**BDJ 530 Topics in Specialized Reporting  
II 3 Y**

Event and issue-oriented reporting. Each section focuses on a content area such as politics, consumerism, or the environment.  
PREREQ: BDJ 364 OR 464 OR 663 OR 664.  
R1, 6 credits maximum

**BDJ 560 Television News Magazine  
Production 1 IR**

Students produce a weekly public affairs show, which explores topics important to the University and Syracuse community. This magazine show includes field reports and studio interviews. Student jobs include booking guests, reporting, and producing. R2, 3 credits maximum

**BDJ 566 Special News Coverage 3 IR**

Planning and production of longer news-related program segments. Writing, research, execution of minidocumentaries and enterprise reports. Field material will be edited for air-ready television presentation.  
PREREQ: BDJ 464.

**BDJ 567 Advanced Newscast Producing  
and News Management 3 Y**

The theory and practice of producing television newscasts. Introduces the basics of broadcast news management. Covers the concepts of being a newsroom leader.  
PREREQ: BDJ 465.

## Communications

**COM 101 Practical Grammar for Public  
Communications 1 S**

Understanding how Standard American English is used in Public Communications and developing the skills to apply that knowledge to writing and speaking.

**COM 107 Communications and Society 3  
S**

Mass media and their functions. Contemporary problems of the media; legal, social, economic, and psychological implications of their relationships with society. Required of all students in the school.

**COM 117 Multimedia Storytelling 3 S**

Working in collaborative teams, students write, design and produce short fiction and non-fiction stories using digital media and the Internet. Emphasis on how story structures change with audience and delivery system.

**COM 200 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**COM 300 Selected Topics 1-3 IR**

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**COM 337 Real News, Fake News: Literacy  
for the Information Age 3 Y**

Critical-thinking skills to distinguish news from other information, such as commentary and propaganda, and to judge quality of news and sources. For non-journalism majors.

**COM 344 Diversity and Media Issues 1 S**

Students will develop understanding of concepts such as social identity, stereotyping, ideology and hegemony. Apply concepts to areas such as news, sports media and contemporary music, through the use of case studies and online discussions.  
PREREQ: COM 107.

**COM 346 Race, Gender, and the Media 3  
S**

Introduction of fundamental issues of diversity that confront media workers and audiences. Topics include roles, obligations, stereotypes, ownership of media in a multicultural society.  
PREREQ: COM 107.

COM 347 Federal Government & the Media 3 IR

How journalists affect the policies and actions of government and how government officials seek to inform, influence, and sometimes obstruct the media. Topics include an examination of ethics and outcomes of often flawed media efforts.

COM 348 Beauty and Diversity in Fashion Media 3 Y

The issues that arise in the fashion industry and the messages that it communicates to the public through its associated media outlets.

COM 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

COM 408 Advertising and Public Relations Law 2 S

A survey of legal issues relevant to advertising and public relations. Specific topics will include free speech, corporate speech, advertising regulations, political advertising, intellectual property, and defamation.

COM 411 Social and Public Issues in Public Communications 3 IR

Problems in decision making for mass-media professionals and institutions in context of current social and cultural issues.

COM 427 Social Media for Public Communicators 3 S

Course examines strategic use of digital and social media platforms and tools for professional communication purposes, with emphasis on hands-on experience and skill. Students learn to analyze social media for communication industries.

COM 470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

COM 490 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

COM 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

COM 500 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

COM 505 Communications Law for Journalists 3 S

Survey of communications law emphasizing First Amendment issues: libel, privacy, confidentiality, access to information, etc. for journalists. Students may not receive credit for more than one of the following: COM 505,506,507.

COM 506 Communications Law for Television, Radio, Film 3 S

Survey of communications law emphasizing First Amendment and regulatory law as they pertain to television, radio, film. Students may not receive credit for more than one of the following: COM 505,506, 507.

COM 507 Communications Law for Advertising and Public Relations 3 S

Survey of communications law emphasizing applications to advertising and public relations. Students may not receive credit for more than one of the following: COM 505,506,507.

COM 515 History of Media in the United States in the Modern Age 3 IR

Print and electronic media in the United States in the context of social and political developments in the 20th century.

COM 527 International Communications 3 IR

Communication of news and opinion among nations and under varying types of social, political, and economic systems. Roles of mass media, news agencies, governments, and communications systems. Offered at SU  
Abroad Centers in London and Strasbourg.

## Graphic Design

GRA 217 Introduction to Graphic Design 3 S

Principles of digital design, composition, computerized layout, typography and imaging applied to advertising, public relations, and publication design for print and web. Introduction to the computer as layout and design tool for visual communications practice. Concurrent lab required.  
COREQ: GRA 218.

GRA 218 Introductory Graphics

Laboratory 0 S

Continuation of GRA 217. Students learn contemporary applications such as Photoshop, Illustrator and InDesign for print and web.

COREQ: GRA 217.

GRA 300 Selected topics 1-3 S

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

GRA 345 Visual Issues in the Media 3 Y

View and analyze the power of media images; pictures, infographics, trademarks, and graphic designs - still and motion. Political influences of television, representations of minorities and women, and ethics of images, for practitioners and audience members.  
PREREQ: COM 107.

GRA 356 Type and Image for Multimedia 2 IR

Intermediate work in graphic design for design majors building on the foundations of writing, photography and graphic design. Students create original print and web design projects concentrating on typography, grid structure and multi-surface design. Portfolio review required.

GRA 357 Type and Image for Photography 1 IR

Intermediate work in graphic design for photo majors building on the foundations of writing, photography and graphic design from previous courses. Using photographic work from PHO 356 students produce final print and web design projects. Portfolio review required.

GRA 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

GRA 437 Typographic Design 3 Y

Double Numbered with: GRA 637

Exploration of proper techniques for the setting of typography. Study of history of graphic design and typeface design. Focus on expressive and functional use of type as it relates to print, web and motion graphics. Additional work required of graduate students.  
PREREQ: GRA 217 AND PHO 301; COREQ: NEW 205.

GRA 447 Motion Graphics and User Experience 3 Y

Double Numbered with: GRA 647

Using the latest in motion graphics and interface design technologies, students learn to build rich user experiences. Students will create web user interfaces and multimedia productions using video, still images, audio and type.

Additional work required of graduate students.

GRA 477 Graphic Design Problems 3 Y

Double Numbered with: GRA 677

Individual investigation into problems in graphic design. Collaborative work with other departments. Projects designed by students and carried out under guidance of faculty. Projects submitted for print or web.

PREREQ: GRA 437 OR 447 OR 637.

GRA 496 Senior Portfolio 0 Y

Crosslisted with: PHO 496

Assembling final portfolio for a Visual and Interactive Communications faculty mentor to review and grade either pass or fail. Failing portfolios may be improved and resubmitted.

PREREQ: PHO 404 OR 425 OR GRA 477.

GRA 540 Advanced Design and Production 3 Y

Students work out plans, specifications, and details of design, layout, illustration, production. Classic and contemporary styles; functional design.

PREREQ: GRA 217 OR 617. R1, 6 credits maximum

GRA 547 Magazine Design and Production 3 IR

Principles of magazine graphics using current practices and technology to create magazine designs. Digital typography, layout, cover design, computer-based production. Credit cannot be given for GRA 547 and GRA 567.

PREREQ: GRA 217 OR 617.

GRA 550 Workshop in Typography 1-3 IR

Typographic work under faculty member or committee guidance. Individual or group projects with faculty assistance, critique. Projects include any typographic application to public communications. May not be repeated for credit.

PREREQ: GRA 217 OR 617.

GRA 557 Information Graphics 3 IR

Principles and techniques of information visualization for public communications applications including journalism, advertising, and public relations. Emphasis on principles of quantitative and qualitative research for information graphics and techniques of visual narrative and information-based design.

PREREQ: GRA 217 OR 617.

GRA 567 Advertising Production 3 IR

Development of ad campaigns from thumbnail sketches through finished comps. Emphasizing concept and its stylistically appropriate expression through typography, layout, and use of photography/illustration publishing standards including current computer software for design. Concurrent lab required.

PREREQ: GRA 217 OR 617.

GRA 587 News Design 3 Y

Principles of typography, image editing, and design using computer pagination to solve problems in newspaper, magazine layout.

PREREQ: GRA 217 OR 617.

### Interactive Communications Core

ICC 300 Selected Topics: Interactive Communications Core 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ICC 306 Applied Research in Content Management 3 Y

Double Numbered with: ICC 606

Students learn and use software tools such as site analytics, tracking code, and the PageRank algorithm to manage search engine results and online traffic. Emphasis on theoretical basis of web traffic aggregation and SEO principles. Additional work required of graduate students.

ICC 400 Selected Topics: Interactive Communications Core 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ICC 500 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ICC 505 Web Journalism and Innovation 3 S

Collaborate with students and professors to produce engaging Web products for the campus community by utilizing multimedia skills, learning interactive Web production systems and gaining an understanding of the changing media landscape.

PREREQ: NEW 305 OR BDJ 364 OR 664 OR MNO 617.

ICC 523 Digital Branding and Strategy 3 Y

Crosslisted with: ADV 523

Examines the transformative role that digital media (websites, social networks, blogs, wikis, mobile) have on the advertising industry. How consumers are reached and interpret the message from these digital platforms.

ICC 565 Designing Interactivity 3 S

Students work in teams to design interactive computer-based public communication systems/applications. Using multimedia authoring systems of HTML, teams will research, design, and evaluate public communication problems for computer-based delivery.

ICC 575 Advanced Web Design 3 Y

Students learn programming and scripting concepts for advanced client-side web applications. This course builds on mark-up frameworks to create advanced interactions and dynamic content updates.

PREREQ: ICC 565.

### Magazine

MAG 205 An Introduction: Editorial, Ethics, and the Business of Magazines 3 S

An exploration of the editorial side of magazines, the roles advertising and circulation play in revenue generation, and the ethical challenges faced by writers, editors, photographers, and designers. Major report on magazine of student's choice.

PREREQ: COM 107.

MAG 300 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MAG 406 Magazine Article Writing 3 S

Writing and selling basic types of magazine articles: ideas, slanting, research, organization, dealings with editors. Students write one full-length article. Additional work required of graduate students.

PREREQ: MAG 205 AND NEW 305.

**MAG 407 Writing Portfolio 3 IR**  
Writing longer and more complex forms of articles and the creation of a digital portfolio of work in which students research and write a major article and weekly pieces for a blog or personal website under close editorial supervision of instructor.  
PREREQ: MAG 406.

**MAG 408 Magazine Editing 3 S**  
Editing and rewriting copy for magazines: ideas, heads, decks, story organization. Pictures, layout, dummy production. Additional work required of graduate students.  
PREREQ: MAG 205 AND NEW 305.

**MAG 409 FIRST ISSUE: Starting a Magazine 3 Y**  
Problems and opportunities that magazine and magazine web editors face each day. A variety of topics ranging from ethics to covers, editorial mix, positioning a magazine and its online extension.  
PREREQ: MAG 408.

**MAG 499 Honors Capstone Project 1-3 SI**  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

**MAG 500 Selected Topics 1-3 IR**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**MAG 518 Critical Writing 3 Y**  
Criticism and its function in journalism. Reviewing books, plays, motion pictures, and other art forms.  
PREREQ: (NEW 205 AND MAG 205) OR MNO 617.

**MAG 529 Writing and Editing for Magazine Websites 3 Y**  
Everything you need to know to join a magazine-branded website's staff: eye-catching copy, clickable headlines, site design, custom-edit projects, interactive tools, video and blogs, plus search engine optimization, social media engagement, and audience tracking.  
PREREQ: MAG 406 OR 408 OR MNO 617.

**MAG 538 Travel Writing 3 Y**  
Writing and selling magazine articles about traveling and specific geographic areas. Students will write in a variety of styles, especially exploring the narrative form.  
PREREQ: NEW 305 OR MNO 617.

## Multimedia Photography And Design

**MPD 205 Photography for Broadcast News 2 S**  
Foundation in the principles and skills of photography and visual journalism as a base for motion media.  
PREREQ: COM 117.

**MPD 300 Selected Topics 1-3 IR**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**MPD 361 Visual News Reporting 3 S**  
Explore ways of telling compelling stories by utilizing various forms of digital media, combining audio, still images and motion to advance narratives beyond the printed page.  
PREREQ: NEW 205 AND COM 117.

**MPD 406 Advertising and Illustration Photography Capstone 3 Y**  
Double Numbered with: MPD 606  
Using advanced photo illustration skills, students collaborate with other Newhouse majors and on a major department project. Students develop their individual brand producing multimedia work for their print and web portfolio. Students cannot receive credit for more than one of the following: MPD 406/606, MPD 426/626, MPD 478/678. Additional work required of graduate students.  
PREREQ: PHO 404.

**MPD 426 Multimedia and Photojournalism Capstone 3 Y**  
Double Numbered with: MPD 626  
Using advanced multimedia and journalism skills students work in collaboration with other Newhouse majors and on a major department project. Students develop their individual brand producing multimedia work for their print and web portfolio. Students cannot receive credit for more than one of the following: MPD 406/606, MPD 426/626, MPD 478/678. Additional work required of graduate students.  
PREREQ: PHO 425.

**MPD 478 Graphic Design Capstone 3 Y**  
Double Numbered with: MPD 678  
Using advanced interactive and graphic design skills students work in collaboration with other Newhouse majors and on a major department project. Students develop an individual brand producing multimedia work for their print and web portfolio. Students cannot receive credit for more than one of the following: MPD 406/606, MPD 426/626, MPD 478/678. Additional work required of graduate students  
PREREQ: GRA 477.

**MPD 499 Honors Capstone Project 1-3 S**  
Completion of an Honors Capstone Project under the supervision of a faculty member.

**MPD 500 Selected Topics 1-3 IR**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

## Newspaper And Online Journalism

**NEW 205 News Writing 3 S**  
Basic techniques in news gathering and writing. Emphasis on accuracy, concise presentation, and meeting deadlines. Styles, grammar, spelling, sentence structure, story organization, and copy preparation.

**NEW 300 Selected Topics 1-3 SI**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**NEW 305 Reporting 3 S**  
Reporting and writing of news stories from information gathered through interviewing, document research, data base retrieval, and observation.  
PREREQ: NEW 205 OR BDJ 204.

**NEW 345 Critical Perspective on News 3 S**  
Crosslisted with: BDJ 345  
Key issues confronting working journalists and news consumers. Evaluation of media performance, ethics, and practices, focusing on how well they serve society; research, site visits, discussion of written papers.  
PREREQ: COM 107.

**NEW 400 Selected Topics 1-3 IR**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

NEW 405 Advanced Reporting 3 S  
Writing based on the reporting of public affairs including the coverage of beats, development of sources, investigative news gathering techniques and interpretive writing.  
PREREQ: NEW 305 OR BDJ 364.

NEW 496 Senior Portfolio 0 S  
Assembling final portfolio for a Newspaper and Online Journalism faculty mentor to review and grade either pass or fail. To complete the major, a student must receive a grade of P.  
PREREQ: NEW 305.

NEW 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

NEW 508 Newspaper Editing 3 S  
Preparation of copy for publication. Headline writing. Correction of copy. Evaluation of news. Condensation of news stories. News display and makeup.  
PREREQ: (NEW 205 AND GRA 217) OR (BDJ 204 AND GRA 217) OR (NEW 605 AND GRA 617).

NEW 509 Advanced Newspaper Editing 3 Y  
Copy editing, headlines, visuals, design, and technology. Handling departments and special sections, editing complex copy. Significant trends in newspaper editing.  
PREREQ: MAG 408 OR NEW 508 OR MNO 608.

NEW 530 Topics in Specialized Reporting 3 S  
Event- and issue-oriented reporting in politics, courts, science, environment, minorities, education, local government. One news area to a section.  
PREREQ: NEW 305 OR BDJ 364 OR 664 OR MNO 617. R1, 6 credits maximum

NEW 535 Newspaper and Magazine Practicum 1-3 S  
Practical on-site experience reporting and writing for Central New York newspapers and magazines. Weekly class sessions. Discussion of supplementary journalistic topics. Class assignments. Research paper.  
PREREQ: NEW 305 OR BDJ 364 OR 664 OR MNO 617. R2, 3 credits maximum

## Photography

PHO 200 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PHO 204 Introduction to Photography 3 Y  
Introduction to camera handling, functions, and controls. Principles of composition, development, and printing. In London only.

PHO 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PHO 301 Introduction to Photography for Multimedia 3 S  
Fundamentals of communications photography, digital imaging, content, composition, sound and motion as the foundation for print and multimedia production.  
COREQ: PHO 556.

PHO 302 Principles of Photography II 3 IR  
Extensive experience in location lighting for photojournalism and advertising photography. Fundamentals of color photography and digital technology.  
PREREQ: PHO 301.

PHO 356 Photography for Multimedia 2 IR  
Practical course in intermediate photographic skills emphasizing lighting, retouching and image enhancement, color theory, storytelling, and human representation through photojournalism, portraiture and fashion photography. Students create original imagery for print and multimedia. Portfolio review required.

PHO 357 Photography for Graphic Design 1 IR  
Practical course in intermediate photographic skills for graphic design majors emphasizing lighting, retouching, and image enhancement, color theory, storytelling, still-life photography, and human representation through portraiture. Students create original imagery for print and multimedia. Portfolio review required.

PHO 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PHO 403 Advertising and Illustration Photography I 3 S  
Double Numbered with: PHO 603  
Lecture, studio, and laboratory on producing digital, still, motion and sound for commercial and advertising content for print and web. Emphasis on concept generation and studio and location lighting. Additional work required of graduate students. Graduate student must be admitted into program or portfolio review.

PHO 404 Advertising and Illustration Photography II 3 Y  
Double Numbered with: PHO 604  
Lecture, studio, and lab and computer production of advanced products for web and print advertising. Emphasizing the use of live models for portraiture, product and fashion photography. Professional business practices. Additional work required of graduate students.  
PREREQ: PHO 403 OR 603.

PHO 405 Photojournalism and Multimedia 3 Y  
Double Numbered with: PHO 605  
Principles and practices of photojournalism and multimedia storytelling. Photographing news, features, portraits, and sports. Picture story and essay production using digital, still, video, and sound. Location lighting techniques. Marketing practices. Additional work required of graduate students.

PHO 425 Picture and Multimedia Editing 3 Y  
Double Numbered with: PHO 625  
Develops newspaper and magazine picture editor's management skills for multimedia storytelling. Communicative qualities of images and sound and how they affect decisions of picture use in publications and on the web. Additional work required of graduate students.  
PREREQ: PHO 405.

PHO 496 Senior Portfolio 0 S  
Crosslisted with: GRA 496  
Assembling final portfolio for a Visual and Interactive Communications faculty mentor to review and grade either pass or fail. Failing portfolios may be improved and resubmitted.  
PREREQ: PHO 404 OR 425 OR GRA 477.

PHO 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PHO 510 Photographic Workshop 3 IR  
Advanced photography. Problems in advertising illustration, photojournalism, and digital imaging. Emphasizing selection, composition, and content suitable for communication media. R1, 6 credits maximum

PHO 511 Color Imaging 3 IR  
Technical and creative application of color theory and color-imaging technology for communications.

PHO 515 Contemporary Photography 3 Y  
Contemporary photography in illustration, advertising, and journalism. Aesthetic and communicative aspects. Lecture course without laboratory.

PHO 530 Topics in Photography 3 Y  
In-depth study of different professional photography specializations including sports photography, fashion and portrait photography, documentary photography, architectural photography, and other topics selected by the department. R2, 9 credits maximum

PHO 555 Photography for Newspaper and Magazine 3 S  
Basic principles and uses of news photography as medium of communication. Photographic medium as used by editors. Not open to photography majors.  
COREQ: PHO 556.

PHO 556 Basic Photo Lab 0 S  
Basic photo lab for PHO 301 or PHO 555.  
COREQ: PHO 301 OR 555.

PHO 560 Advanced Photo Lab 0 S  
Advanced photo lab to support advanced photography course work. Enrollment in advanced photography courses. R7

PHO 581 Photographic Workshop 3 Y  
Advanced photography workshop in advertising and/or photojournalism. Emphasis on content suitable for publication in communications media. Offered London campus only.

## Public Relations

PRL 206 Public Relations Principles and Concepts 3 S  
Introduction to growing field of public relations, its history and its future; careers; job requirements; role as a management function building two-way communication for organizations and their publics; ethics and social responsibility; social media impact.  
PREREQ: COM 107.

PRL 214 Writing for News and Public Relations in a Digital Age 3 S  
Introduction to basic fundamentals of good writing, news writing, news values and basic reporting; writing public relations forms with creation of a Webinar; AP Style, achieving consistently high-quality news and public relations writing.  
PREREQ: COM 107 AND PRL 206.

PRL 215 Advanced Public Relations Writing for a Digital World 3 S  
Builds on news/media writing and fundamental writing skills to develop advanced public relations writing for digital and traditional outlets; media relations writing; crisis communications; news conferences; and writing in a diverse, multicultural world.  
PREREQ: PRL 206 AND 214.

PRL 300 Selected Topics: Public Relations 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PRL 315 Public Relations Research 3 S  
The application of social science research methods to solve public relations planning, implementation, and evaluation problems. Students design and carry out actual research projects and produce final client reports.  
PREREQ: PRL 206.

PRL 325 Public Relations Campaign Planning and Execution 3 S  
Students apply management, strategic planning, problem solving, tactics and research to client needs. Teams design, execute and evaluate appropriate integrated campaigns for actual clients. Frequent client/team contact and interaction required.  
PREREQ: (PRL 215 AND 315) OR ADV 509.

PRL 345 The Ethics of Advocacy 3 S  
Double Numbered with: PRL 645  
Study and application of moral philosophy to ethical decision making in organizations. Examines ethical challenges in public relations, business management, advocacy, public affairs, or other career avenues.  
Additional work required of graduate students.

PRL 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PRL 497 Public Relations Management 3 S  
Capstone course to understand management of public relations in an organizational context, apply best practices in diverse and challenging global environments, using the managerial process of planning and decision making, organizing, controlling and leading.  
PREREQ: PRL 215 AND 315.

PRL 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PRL 525 Public Relations Practicum 3 S  
On-site work experience in the Syracuse area to acclimate students to the realities of organizational life; to explore one type of public relations in depth; to apply classroom theory to the solution of everyday communications problems and to develop additional work samples for professional portfolios.  
PREREQ: PRL 215 AND 315 AND 325.

PRL 530 Special Topics in Public Relations 1-3 Y  
In-depth look at different public relations specializations, including media relations, government relations, investor relations, crisis communications, employee communications, and sports information. R2, 3 credits maximum

## Television, Radio, And Film

TRF 205 Sight, Sound and Motion 3 S  
Study and practice of the aesthetic structures and production processes involved in creating effective motion picture, television and sound content.  
PREREQ: COM 117.

TRF 211 Screenwriting 3 S  
Exploring the craft of writing involved in motion picture, television and digital media storytelling through in-depth study and practice.  
PREREQ: COM 117.

TRF 235 Principles and Practices: Television-Radio, Film Industries 3 S  
Origins and dynamics of corporate structures, revenue models, content, distribution, and regulation in the television, radio, film, and interactive media industries.  
PREREQ: COM 107.

TRF 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

TRF 340 Topics in Critical and Historical Perspectives 3 S

Double Numbered with: TRF 640  
Non-print media as art forms and social, political and cultural forces. Critical analysis of individual products of broadcasting and motion pictures in relation to the systems for which they were created. Additional work required of graduate students R3, 12 credits maximum

TRF 400 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

TRF 421 Feature Film Writing 3 Y  
Double Numbered with: TRF 621  
Study and practice of the craft of feature film writing. Additional work required of graduate students.  
PREREQ: TRF 211.

TRF 422 Comedy Writing 3 S  
Double Numbered with: TRF 622  
Study and practice of the craft of comedy writing for television and film. Additional work required of graduate students.  
PREREQ: TRF 211.

TRF 424 Script Development 3 Y  
Double Numbered with: TRF 624  
Screenwriting theory and the script development process: writing topics include story structure, genres, character development, dialogue, and script formatting. Business topics include pitching, writing script coverage, supervising development, and breaking into the industry. Additional work is required of graduate students.  
PREREQ: TRF 211.

TRF 442 Television Production Workshop 3 Y  
Double Numbered with: TRF 642  
Students write, design, produce, direct, and program projects specifically for television presentation. Additional work required of graduate students.  
PREREQ: TRF 205.

TRF 448 Producing Radio: On Air to Online 3 Y  
Double Numbered with: TRF 648  
Intermediate study and practice in creating fictional and nonfictional radio content for broadcast and online distribution. Additional work required of graduate students.

TRF 450 Advanced Practice: Special Projects 1-3 IR  
Double Numbered with: TRF 650  
Faculty member works with student on project especially tailored for his/her unique content objectives. Additional work required of graduate students. R5, 6 credits maximum

TRF 451 Filmmaking 3 S  
Double Numbered with: TRF 651  
Student teams produce and edit short films using digital production and post production technology. Emphasis on narrative filmmaking. Additional work required of graduate students.  
PREREQ: TRF 205.

TRF 453 Shortform Production 3 Y  
Double Numbered with: TRF 653  
Techniques of shortform moving image media such as commercials, promos, music videos, show openings, special effects, and high impact packaging. Additional work required of graduate students.  
PREREQ: TRF 205.

TRF 454 Music Recording 3 Y  
Double Numbered with: TRF 654  
Students produce a recording of a musical performance in a 24-track recording studio. Topics include: Aesthetics of recorded sound, acoustics, psycho-acoustics, the multitrack recording process, mixing, microphone techniques, signal processing. Additional work required of graduate students.

TRF 456 Sound for Picture 3 Y  
Double Numbered with: TRF 656  
Introduction to theory and production of sound for television and film. Includes information processing, aesthetics, perception of sound, sound/picture relationship, analog and digital sound studios, production recording, signal processing, nonlinear editing and mixing. Additional work required of graduate students.

TRF 457 Music Underscoring 3 Y  
Double Numbered with: TRF 657  
The theory and practice of producing music to underscore visual material. Additional work required of graduate students.

TRF 458 Radio Practicum 3 IR  
Double Numbered with: TRF 658  
Guided experience in professional radio environments. Areas of expertise include sales, programming, production, promotions, engineering, news/public affairs, and performance. Additional work required of graduate students.

TRF 459 Documentary Production 3 Y  
Double Numbered with: TRF 659  
Student teams write, produce, and edit documentary projects. Additional work required of graduate students.  
PREREQ: TRF 205.

TRF 461 Advanced Management Seminar 3 Y  
Double Numbered with: TRF 661  
Business of communications industry focusing on management skills and their effective application. Additional work required of graduate students.

TRF 462 Advanced TV Production 3 S  
Double Numbered with: TRF 662  
Students produce six episode, scripted television series to demonstrate mastery of advanced television production practices. Additional work required of graduate students.  
PREREQ: SENIOR LEVEL.

TRF 467 Screenwriting Master Class 3 Y  
Double Numbered with: TRF 667  
Advanced practice built around professional workshops, sponsored by the Center for Popular Television, and guest speakers. Students interact with professionals while working on their screenwriting portfolios. Additional work required of graduate students.

TRF 468 Advanced Audio 3 Y  
Double Numbered with: TRF 668  
Independent and specialized practice in audio, including sound tracks for film or television; CD albums; radio drama; or spot announcements. Additional work required of graduate students.  
PREREQ: TWO OF THE FOLLOWING: TRF 454 OR 456 OR 457 OR 458 OR MUI 301 OR 307 OR 308 OR 320.

TRF 469 Advanced Filmmaking 3 Y  
Double Numbered with: TRF 669  
Students propose independent film projects (fiction or documentary), and if approved, produce them using digital video and sound technology. Additional work required of graduate students.

TRF 483 Communications Industry  
Frontiers 3 Y

Double Numbered with: TRF 683  
Overview of the trends in business,  
technology, and regulation that are likely to  
have an impact on the communications  
sector. Additional work required of graduate  
students.

TRF 500 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not  
covered by the standard curriculum but of  
interest to faculty and students in a particular  
semester. R

TRF 510 Specialized Practice 1 S

These four-week mini-courses provide specific  
areas of study not covered in depth in other  
courses. Examples: Production Management,  
Budgeting, Editing, Lighting, Location Sound,  
Videography, and others based on faculty and  
student interest. R

TRF 530 Popular Culture Studies 3 S

In-depth examination of critical issues,  
aesthetics, genre, and authorship involved in  
electronic media and cinema. Topics range  
from television genres to film classics. R3, 12  
credits maximum

TRF 545 Television & Radio Performance  
3 IR

Theory and practice of effective television  
and radio performance. Closed circuit studio  
experience planning and presenting  
educational and commercial material.

TRF 560 Topics in International  
Perspectives 3 Y

In-depth examination of issues and practices  
involved in international television and film.  
Topics alternate from semester to semester.  
Examples include: Global Communication,  
Ways of Seeing, Comparative Systems, and  
British Cinema. R1, 6 credits maximum

TRF 592 Film Business 3 S

Economics of the film industry. Financing of  
films, budgets, sources of funds, contracts.  
Securing distribution. National and  
international marketing of films. Film rental.  
Booking films for television or theater.  
Exploitation of ancillary markets.

TRF 594 Television Business 3 S

Management principles and practices in  
electronic media; organizational structures,  
financial controls, revenue procurement,  
economic theory, management law, product  
development, and personnel administration.

TRF 595 Programming and Audience  
Analysis 3 IR

Immersion in the principal programming  
functions of content development and  
acquisition, scheduling, and promotion. Survey  
of scheduling strategies and case studies, hits  
and misses. Research techniques to understand  
audience program preferences and choices.

# Faculty

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Frank Biocca, Professor; Newhouse Chair; Communications; Television, Radio and Film Ph.D., University of Wisconsin-Madison, 1986

Mass communication, human-computer interaction, media psychology

Lorraine Branham, Professor and Dean, Newspaper and Online Journalism

B.A., Temple University, 1976  
News editing, journalism, publishing, media management

Richard L. Breyer, Professor, Television, Radio and Film; Co-Director, Documentary Film and History

M.A., New York University, 1967  
Television production, documentary/educational writing and production

Harriet Brown, Associate Professor, Magazine

M.F.A., Brooklyn College, 1982  
Magazine writing and editing, creative writing, body image and media

Hubert Brown, Associate Professor, Broadcast and Digital Journalism; Associate Dean for Research, Creativity, International Initiatives and Diversity

M.A., University of Nebraska at Lincoln, 1993  
Political reporting, writing, producing, and minority broadcasting

Melissa Chessher, Professor, Chair, Magazine; Director, Magazine, Newspaper and Online Journalism Program

M.A., Baylor University, 1987  
Magazine writing and editing

Fiona Chew, Professor, Television, Radio and Film

Ph.D., University of Washington, 1985  
Television research, the media and public health

Makana Chock, Associate Professor, Communications; Endowed Chair of Public Communications

Ph.D., Cornell University, 2004  
Health communication, persuasion, risk communication

Michael Cremedas, Associate Professor, Broadcast and Digital Journalism

Ph.D., University of Florida, 1988  
Broadcast writing, reporting, and production; viewer retention of broadcast news

Frank Currier, Professor of Practice, Broadcast and Digital Journalism M.A., University of Missouri at Columbia, 1968

Broadcast news writing and reporting

Mike Davis, Professor of Practice, Multimedia Photography and Design; Alexia Chair for Documentary Photography

M.A., University of Missouri, Columbia, 1987  
Visual storytelling, photojournalism, picture editing, whole-package thinking

Steve Davis, Associate Professor, Chair, Newspaper and Online Journalism

B.J., University of Missouri at Columbia, 1977  
News writing and reporting, multimedia journalism

Joan A. Deppa, Associate Professor, Newspaper and Online Journalism

Ph.D., Michigan State University, 1981  
News writing, reporting, media coverage of terrorism

Jenny Doctor, Associate Professor, Television, Radio and Film; Director, Belfer Audio Archive

Ph.D., Northwestern University, 1993  
music on British radio, twentieth-century British music and cultural history, music on sound recordings

Richard Dubin, Professor of Practice, Television, Radio and Film  
Television writing, directing, and production; film business; comedy

Beth Egan, Associate Professor, Advertising MBA, Southern Methodist University, 1990  
Media and digital strategy, packaged goods, beauty and travel industry expertise

Larry Elin, Associate Professor, Television, Radio and Film

B.S., Syracuse University, 1973  
Television production and interactive multimedia

Amy P. Falkner, Associate Professor, Advertising; Senior Associate Dean for Academic Affairs M.A., Syracuse University, 1989  
Media planning, advertising to gay and lesbian markets, social media

Rochelle L. Ford, Professor, Chair, Public Relations

Ph.D., Southern Illinois University at Carbondale, 1999  
Media relations, diversity and public relations, public relations research and theory

Barbara C. Fought, Associate Professor, Broadcast and Digital Journalism; Communications

J.D., University of Detroit, 1992  
Communications law, broadcast news writing and reporting, access to information

Aileen Gallagher, Assistant Professor, Magazine

B.A., Syracuse University, 1999  
Magazines, online editorial, blogs

Keith Giglio, Assistant Professor, Television, Radio and Film

M.F.A., Wagner College, 1989  
comedy writing, screenwriting, writing for video games

Seth Gitner, Assistant Professor, Newspaper and Online Journalism, Multimedia Photography and Design

B.F.A. Rochester Institute of Technology, 1995  
Photojournalism and multimedia web content

Tula Goenka, Associate Professor, Television, Radio and Film

M.S., Syracuse University, 1986  
Film and television production, global film

Guy J. Golan, Associate Professor, Public Relations

Ph.D. Mass Communications, University of Florida, Gainesville, 2003  
Public diplomacy, international communication, political communication, media effects and public opinion

Bradley W. Gorham, Associate Professor, Chair, Communications; Director, Media Studies Program

Ph.D., University of Wisconsin-Madison, 2002  
Media and society; media effects; race, gender, and media

Roy Gutterman, Associate Professor, Communications; Newspaper and Online Journalism; Director, Tully Center for Free Speech

J.D., Syracuse University, 2000  
First Amendment, speech and press law, covering legal affairs, public access

Ken Harper, Assistant Professor, Multimedia Photography and Design

M.A., Ohio University, 2009  
Graphics and interactive design

Dona Hayes, Associate Professor, Broadcast and Digital Journalism; Co-Director, Military Program  
M.S., Syracuse University, 1976  
Broadcast newswriting, reporting, and production

Gregory Heisler, Professor of Practice, Multimedia, Photography and Design  
Portrait photography, photo essays, advertising photography, editorial photography

Keren Henderson, Assistant Professor, Broadcast and Digital Journalism  
M.M.C., Louisiana State University  
the relationship between the business of making news and the art of making news

Leanne Hirschfield, Research Associate Professor, Communications  
Ph.D., Tufts University, 2009  
Human-computer interaction, machine learning

Sharon R. Hollenback, Professor, Television, Radio and Film  
Ph.D., University of Texas at Austin, 1980  
Television writing, media and society

William Jasso, Professor of Practice, Public Relations  
M.S., Syracuse University, 2002  
Public relations strategy management, crisis management, traditional and social media relations, employee engagement

Hua Jiang, Assistant Professor, Public Relations  
Ph.D., University of Maryland, College Park, 2009  
Relationship management in public relations, social media, public relations leadership, health communication, quantitative research methods

Barbara E. Jones, Professor of Practice, Television, Radio and Film  
M.S., Syracuse University, 1988  
Television programming, television business, interactive digital media, international media

Joel Kaplan, Professor, Newspaper and Online Journalism; Associate Dean for Graduate Professional Studies  
M.S.L., Yale Law School, 1991  
News writing, investigative reporting, media law

Johanna Keller, Associate Professor, Newspaper and Online Journalism; Communications; Director, Goldring Arts Journalism Program  
M.A., Antioch, 1996  
Critical writing, cultural reporting

Dennis F. Kinsey, Professor, Public Relations; Co-Director, Public Diplomacy Program; Director, Mass Communications Ph.D. Program  
Ph.D., Stanford University, 1994  
Public relations theory and research, political public relations, Q-methodology

Robert M. Kucharavy, Professor of Practice, Public Relations  
B.A., Le Moyne College, 1969  
Public relations management and crisis communications

Charisse L'Pree, Assistant Professor, Communications  
Ph.D., University of Southern California, 2012  
Media psychology, group representation and diversity, media effects, new media and behavioral change.

Carol M. Liebler, Professor, Communications  
Ph.D., University of Wisconsin-Madison, 1989  
Communications theory and methodology, media and the environment, media and gender

Joon Soo Lim, Assistant Professor, Public Relations  
Ph.D., University of Florida, 2006  
Public Relations campaigns, social media strategies, social influence and persuasion

Carla V. Lloyd, Professor; Advertising, Communications  
Ph.D., Syracuse University, 1994  
Advertising media, research, and fashion communications

Robert E. Lloyd, Professor of Practice, Newspaper and Online Journalism  
M.A., Syracuse University, 1979  
News writing and reporting, media and society

Patricia H. Longstaff, David Levidow Professor of Communications Law and Policy, Television, Radio and Film  
M.P.A., Harvard University, 1994  
Communications law, regulation of new communications technologies

Suzanne Lysak, Assistant Professor, Broadcast and Digital Journalism  
B.S., Boston University, 1985  
Broadcast news producing, news management, television news employment issues

Stephen M. Masiel, Professor, Newspaper and Online Journalism; Coordinator of Interactive Communications Core; Director of New Media Management Program; Co-Director of the Computational Journalism Program  
M.P.S., Cornell University, 1992  
Multimedia, the Internet as a tool of communication

Lawrence Mason Jr., Professor, Multimedia Photography and Design  
Ph.D., Syracuse University, 1979  
Communications and society, fashion photography

John Nicholson, Professor of Practice, Broadcast and Digital Journalism; Director, Newhouse Sports Media Center  
B.S., Syracuse University, 1968  
Broadcast news writing and reporting, sports journalism

R. Gustav Niebuhr, Associate Professor, Newspaper and Online Journalism  
M.A., Oxford University, 1980  
Religion reporting, religion and politics, urban affairs, blogging

Kevin O'Neill, Professor of Practice, Advertising  
M.A., Hollins University, 1976  
Creative direction, advertising criticism, brand strategy

Anne Osborne, Associate Professor, Communications  
Ph.D., University of Tennessee, Knoxville, 1999  
Media and identity construction, sport fandom

Dan Pacheco, Professor of Practice, Newspaper and Online Journalism, Peter A. Horvitz Endowed Chair in Journalism Innovation  
B.S., University of Colorado, 1994  
Applying new technologies to reporting and storytelling, new content business models, news startups.

Simon Perez, Assistant Professor, Broadcast and Digital Journalism  
M. A., Universidad Complutense, Madrid, Spain, 1991  
Multimedia journalism, journalism ethics, fairness in reporting, courtroom reporting

Adam R. Peruta, Assistant Professor, Magazine  
M.S., Syracuse University, 2004  
digital communications, web design, art direction, branding, e-commerce, programming, mobile platforms, social media

Douglas Quin, Associate Professor, Television, Radio and Film; Co-Director, Audio Arts Program  
Ph.D., The Union Institute and University, 1999  
Acoustic ecology, sound production

Hillary Rosner, Assistant Professor, Magazine  
M.S., University of Colorado-Boulder, 2006; MFA, New York University, 2001  
Environmental and science journalism, magazine editing and writing, media training for scientists, sustainability

Anthony Rotolo, Assistant Professor; Director, Online Master's Program  
M.S., Syracuse University, 2006  
Social media, information reporting

David M. Rubin, Professor; Dean Emeritus; Communications  
Ph.D., Stanford University, 1972  
Communications law, media and society, cultural and arts reporting

Edward W. Russell, Associate Professor, Advertising  
M.S., Northwestern, 1982  
Principles of advertising, branding, new methods of persuasive communications, campaigns

Maria P. Russell, Professor, Public Relations; Director, Communications Management Independent Study Degree Program  
M.S., Syracuse University, 1972  
Public relations management, professional development in public relations

Kandice Salomone, Associate Professor, Communications  
Ph.D., Syracuse University, 1992  
Communications research

Michael Schoonmaker, Associate Professor, Chair, Television, Radio and Film; Co-Director, Media and Education Program  
Ph.D., Syracuse University, 1994  
Television production, K-12 media education

James Shahin, Associate Professor, Magazine  
B.A., University of Michigan, Ann Arbor, 1976  
Critical writing, magazine editing

Brian Sheehan, Associate Professor, Advertising  
M.A.T., Loyola Marymount University, 2007  
Branding, advertising strategy, campaigns

Pamela J. Shoemaker, John Ben Snow Professor of Communications  
Ph.D., University of Wisconsin-Madison, 1982  
Gatekeeping, cross-cultural study of news

Evan Smith, Professor, Television, Radio and Film  
M.S., Syracuse University, 1979  
Television and feature film script writing, comedy writing, the film business

Bruce Strong, Associate Professor, Chair, Multimedia Photography and Design  
M.A., Ohio University, 2005  
Multimedia storytelling and the Internet, photojournalism

David C. Sutherland, Associate Professor, Multimedia Photography and Design; Co-Director, Military Program  
M.A., Western Kentucky University, 1973  
Photojournalism, multimedia storytelling

Corey Takahashi, Assistant Professor, Magazine  
B.A., University of California, Santa Cruz, 1998  
Global media, culture and arts reporting, mobile apps, multimedia producing

Sherri Taylor, Adjunct Professor/Administrator, Multimedia Photography and Design; Director, Empire State Scholastic Press Association  
M.A., Syracuse University, 1990  
Graphic design, scholastic press

Robert J. Thompson, Trustee Professor of Television and Popular Culture; Television, Radio and Film, Director, Bleir Center for Television and Popular Culture  
Ph.D., Northwestern University, 1987  
Television history and criticism, television and popular culture

Donald C. Torrance, Associate Professor, Broadcast and Digital Journalism; Television, Radio and Film; Director, Carnegie Environmental Science Journalism Program  
B.A., Alfred University, 1971  
Broadcast news writing and production, science journalism

James Tsao, Professor; Chair, Advertising  
Ph.D., Temple University, 1989  
Online advertising, international advertising

Chris Tuohy, Associate Professor, Chair, Broadcast and Digital Journalism  
M.A., Ohio State University, 1990  
Broadcast news reporting, writing, and producing, sports journalism

William Ward, Professor of Practice, Communications  
Ph.D., Michigan State University, 2007  
social media, digital innovation, cause-related marketing

Randy Wenner, Adjunct Professor/Administrator, Broadcast and Digital Journalism  
M.S., Syracuse University, 1996  
Broadcast news writing, producing, and reporting

# College Of Visual And Performing Arts

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Ann Clark, Dean  
200 Crouse College  
vpa.syr.edu/

## About The College

The College of Visual and Performing Arts at Syracuse University is committed to the education of cultural leaders who will engage and inspire audiences through performance, visual art, design, scholarship, and commentary. The college provides the tools for self-discovery and risk-taking in an environment that thrives on critical thought and action.

The College of Visual and Performing Arts is dedicated to nurturing the creative and scholarly abilities of its students. The college, which is at the center of the University's cultural life, is organized into four areas: the School of Art and Design, the Department of Communication and Rhetorical Studies, the Department of Drama, and the Setnor School of Music. Recognizing the link between education, understanding, and cultural knowledge, the College of Visual and Performing Arts is also committed to providing sites for learning about diversity throughout its curricula.



## General Regulations

For academic rules and regulations that apply to all University students, see the Academic Rules and Regulations section of this catalog, which also contains special regulations that apply to all undergraduate students matriculated in the College of Visual and Performing Arts.

### INTRA-UNIVERSITY TRANSFER

Applications for intra-University transfer are available in the Office of Recruitment and Admissions, 202 Crouse College. Applications are held until the end of the semester.

### TRANSFER CREDIT

Transfer of credit is considered only for courses that may be applied to the program in which the student is interested. In the School of Art and Design, Department of Drama, Department of Transmedia, and the Setnor School of Music, transfer students often have an excess of credits in academic subjects that cannot be applied to a specific program due to the high number of studio credits required. The result may be that the period of undergraduate study is extended beyond the typical four years. In the Setnor School of Music, placement examinations in music theory and applied music are also required before credit is accepted.

In all cases, transfer credit is evaluated after admission. Credits—not grades or honor points—are transferred from other institutions. Only credits earned at Syracuse University are counted in the grade point average.

### FEES

All students matriculated in a VPA major or minor are charged a program fee that covers certain expenses such as applied music instruction, specialized studio art supplies, dramatic productions, visiting artists, and equipment and technology. Non-VPA students are charged an applied music fee for private instruction and a per credit fee for other VPA courses. See the SU Tuition, Fees and Related Policies bulletin for specific charges.

## The First - Year Experience

All first-year students are assigned faculty advisors to help them plan their programs. In all five areas of the college, first-year courses and programs address the adjustment and integration of first-year students into college life. In each area, the emphasis is on small class size, one-to-one contact with faculty, the development of skills, and the personal appropriateness of each student's choice of professional pursuit.

First-year students in one of the School of Art and Design's B.F.A. art and design programs or the B.I.D. program take the foundation program, which includes both required and elective academic options. In the Department of Transmedia, the first-year student experience is designed to introduce students to studio practice, history, and theory of the media, with an emphasis on the interconnectedness of all four areas of transmedia.

In the Department of Communication and Rhetorical Studies, first-year students are part of a comprehensive introductory program led by faculty and staff, incorporating a lecture series, information meetings, alumni panels, and advising. The entire first-year class takes two courses that involve small discussion groups of approximately 20 students. In the courses, students meet with faculty and teaching assistants to address issues of concern in their discipline.

In the Department of Drama, student involvement in theatrical activity is immediate. During the first year students participate in the department's foundation program. Each week drama faculty and students gather for Wednesday Lab, which includes presentations of scenes from class, guest artists, talks with alumni, and other panel discussions.

In the Setnor School of Music, a weekly student convocation brings the entire school community together for performances by their peers, faculty, and many guest artists. In addition to many hours of individual practice, the school encourages the development of skills needed for functioning in group situations. Thus, students are required to be involved in one of the school's large ensemble groups each semester.

## School Of Art And Design

Department of Art, 102 Shaffer Art Building, 315-443-4613  
Department of Design, The Warehouse, First Floor, 315-443-2455  
Department of Foundation, 222 Smith Hall, 315-443-2251  
Department of Transmedia, 102 Shaffer Art Building, 315-443-1033

### The School of Art and Design

As a professional school within a major university, the School of Art and Design offers a wealth of academic resources and endless opportunities and activities. Students are actively involved in mastering their chosen discipline and receive a liberal education that is integral to the development of artists and designers. They have one-on-one interaction with the school's active, professional faculty and numerous visiting artists.

The School of Art and Design has a tradition of excellence that goes back more than 130 years; in fact, Syracuse University was the first university in the country to grant a bachelor of fine arts (B.F.A.) degree. Within its three departments (art, design, and transmedia), the school offers 17 majors that lead to a B.F.A. degree: art education, art photography, art video, ceramics, communications design, computer art, fashion design, film, history of art, illustration, environmental and interior design, jewelry and metalsmithing, painting, printmaking, and sculpture. It also offers a program leading to a bachelor of industrial design (B.I.D.) degree in industrial and interaction design.

School of Art and Design students are encouraged to explore interdisciplinary study within the school and University as well as pursue opportunities for internships and study abroad experiences. Students may also take advantage of the courses, programs, and events offered through COLAB, an interdisciplinary initiative based in the College of Visual and Performing Arts that encourages students and faculty to use their diverse skills and perspectives to solve complex, real-world problems creatively and collaboratively. The School of Art and Design is committed to ensuring that students receive a comprehensive education in art and design in all of their disciplinary forms. In studio courses where students are involved in representing their own issues and identities, diversity is by nature an integral component of each class. In lecture-based studies courses, the work of underrepresented groups and issues of gender and sexual orientation are incorporated into the curricula. In addition, specific concerns of diversity are addressed in the courses listed below:

AED 522 Art for Special Populations  
ART 105 Color and Light  
ART 111 20th- to 21st-Century Art in Context  
ART 112 Special Topics in History of Art  
ART 113 20th- to 21st-Century Design in Context  
ART 114 Special Topics in History of Design  
ART 250 Filmmaking: Cinematic Modes  
ART 300 Selected Topics (e.g., Art and Politics)  
ART 361/561 Studio Symposium  
ART 563/564 Art in America  
PTG 300 Decoding Images  
EDI 553 Philosophy and Research  
IND577 Philosophy and Ethics  
DES248 Design Issues

### Department of Art

Contact Stephanie James, Director, 102 Shaffer Art Building, 315-443-4613

The School of Art and Design is Department of Art offers an exciting, energetic culture of students who are encouraged to cross conventional boundaries with their work. They are motivated, curious, and committed to artistic growth. The department takes a genuine interest in teaching students what being a professional artist means so that they are prepared for the future. Curricula are designed to allow students to take classes within the larger University, which gives students exposure to the liberal arts as well as courses in business and entrepreneurship. All programs have student organizations that participate in community service projects and the selection of visiting artists, who are a critical component of the department. The department also engages in numerous educational partnerships with Syracuse schools and agencies.

### Department of Design

Contact James Fathers, Director, The Warehouse, First Floor, 315-443-2455

In the Department of Design, located in the School of Art and Design, faculty and students form an inquisitive and intelligent community that is concerned with the world around it. Many of the departments' professionally oriented programs are top-ranked in the United States and have a long history at Syracuse University. The diverse programs in the department share a commitment to professional excellence and use of socially conscious and sustainable design practices. The department maintains a special relationship with the Syracuse community through the activities of its various student groups--including chapters of professional design organizations--that continually work on projects with not-for-profit agencies as well as funded research design collaborations. All of the departments programs are housed in The Warehouse in downtown Syracuse that allows students and faculty to benefit from a city atmosphere and interactions with local design firms.

Department of Foundation

Contact Christopher Wildrick, Department of Foundation, 222 Smith Hall, 315-443-2251.

The foundation program is taken during the first year and is a prerequisite for most B.F.A. and B.I.D. programs in the departments of art and design. Students in the B.F.A. degree program in fashion design have additional specific foundation requirements and should refer to their program of study for more information.

The foundation curriculum is designed to provide the most rigorous introductory courses necessary for a complete education in art and design. The foundation year includes four required studios: Dimensional Arts, Foundation Drawing, Time Arts, and Two-Dimensional Integrated Design; two required courses in art and design history; and one required Syracuse University writing course. Students take two required studios in the fall semester and the remaining two in the spring, and one art or design history course in the fall and the other in the spring. There is no sequence in the order of the studios. The goal of these courses is to strengthen conceptual and technical abilities, promote research activity, and provide a cultural and historical context for a broader and more diverse understanding of students' ideas.

In addition to these required courses, students have choices of studio art and academic electives in both semesters. Studio electives provide students with a broad, rich experience. In addition to the special topics studio electives offered by the Department of Foundation, certain 100- and 200-level studio courses are offered by the Departments of Art, Design, and Transmedia. Students take at least one academic or studio elective in the fall semester. They may also choose to take a second academic elective, but not two studio electives in the fall. In the spring semester, students are required to take one academic elective and are strongly encouraged to take a studio elective. Students may take academic electives from other areas of the University, including within the School of Art and Design.

Throughout the year, first-year students come in contact with faculty and students from all programs in the School of Art and Design, with opportunities for conversation and presentations about the different majors so they are prepared to select a major at the end of the year.

Fall Semester

ART101 1

WRT 105 Writing Studio I 3

Academic electives/studio elective 3-6

Choose two of the following

FND 111 Time Arts 3

FND 113 Foundation Drawing 3

FND 115 Two-Dimensional Integrated Design 3

FND 117 Dimensional Arts 3

Choose one of the following

ART 111 Twentieth- to 21st-Century Art in Context 3

ART 113 Twentieth- to 21st-Century Design in Context 3

16

Spring Semester

Academic elective 3

Academic/studio elective(s) 3-6

Choose the remaining two not taken in the fall semester

FND 111 Time Arts 3

FND 113 Foundation Drawing 3

FND 115 Two-Dimensional Integrated Design 3

FND 117 Dimensional Arts 3

Choose remaining one not taken in fall semester

ART 111 Twentieth- to 21st-Century Art in Context 3

ART 113 Twentieth- to 21st-Century Design in Context 3

15

WRT 205, although not a foundation requirement, is a University requirement, and should be taken within the first two years of study. It is offered only in the spring semester.

Department of Transmedia

Contact Heath Hanlin, Chair, 102 Shaffer Art Building, 315-443-1033

Students in the School of Art and Design's Department of Transmedia forge a strong vision and the capacity to act intelligently as an artist. The department is committed to providing a meaningful exploration of media arts with strong, professional artistic practice. Each curriculum in the department is shaped to offer greater flexibility for unique academic experiences, including core courses in transmedia theory and practices. Faculty encourage students

to exhibit work on and off campus and arrange for visiting artists to give lectures and critiques. They are also actively involved in the Syracuse community, organizing screenings, film festivals, and exhibitions, which give students additional opportunities for creative exploration and involvement.

## General Regulations

### DEGREE REQUIREMENTS

A minimum of 126 credits is required to complete all of the four-year B.F.A. degree programs in the School of Art and Design except for Fashion Design and Environmental and Interior Design, which requires 120 credits. The industrial and interaction design program requires a full five years of study and 156 credits. For the B.F.A. programs in the Department of Transmedia, the minimum number of credits required for graduation is 129.

All students matriculated in the Departments of Art and Design's B.F.A. and B.I.D. degree programs must satisfy their program's foundation requirements. Major programs are usually selected by the end of the first year and require approximately 30 credits in one area of professional work, along with other coursework that may be required for the chosen program. Students in the B.F.A. program in fashion design should refer to their specific program of study for major requirements and other coursework.

All students matriculated in the B.F.A. degree programs in the Department of Transmedia must satisfy the requirements of the transmedia core.

No degrees are granted unless all fees have been paid or satisfactorily adjusted.

### ADVANCED PLACEMENT COURSES

The School of Art and Design accepts advanced placement (AP) credit for art/general, art/media and art/drawing for electives only. AP credits may not be used for first-year foundation program studios or transmedia core courses. Syracuse University and the School of Art and Design accept many other academic credits including art history. Please refer to the Academic Rules and Regulations section of this catalog for more information.

### Special Services and Programs:

#### STUDY ABROAD

The College of Visual and Performing Arts, through Syracuse University Abroad, provides an opportunity for students matriculated in the School of Art and Design to take advantage of study programs in Florence, Italy; Prague, Czech Republic; and London, England.

Students majoring in one of the B.F.A. programs or the B.I.D. program may study abroad for a semester, a year, or a summer in London and Florence. This educational experience draws upon the rich resources of these cities' museums, architectural monuments, and cultural offerings. Students may take either a semester- or a year-long program that includes six to nine credits of studio work each semester.

The film program offers both semester-long and short-term study with FAMU in Prague, Czech Republic. Students must obtain departmental approval to participate.

A direct placement program with the London College of Fashion offers students majoring in the B.F.A. program in fashion design a professional semester in London during their junior year. In addition to classes they would normally take on the SU campus, students may take courses in such areas as millinery design, shoe design, and electronic machine embroidery. All of the students have internships with English designers and are immersed in the London fashion scene. Contact SU Abroad at 315-443-3471, or online at [suabroad.syr.edu](http://suabroad.syr.edu).

Students who elect to spend a semester abroad may find that some program adjustments are necessary. Students should consult with their advisor for more information and contact the Office of Student Affairs, 200 Crouse College, 315-443-2517.

### SPECIAL STUDIES IN ART

The special studies in art program leads to the B.F.A. degree and is designed expressly for interdisciplinary study. The program is not automatically available; it must be mutually approved by the advisors in the various areas incorporated into the program. All applicants must undergo a personal interview and a portfolio review. In addition, a written proposal for the complete program of study is required, including specific courses and credits. Students are expected to complete the foundation program, and sophomores must have a 3.0 cumulative grade point average and a portfolio of superior caliber to be accepted. The decision to enroll in the special studies program must be made before the student accumulates 60 credits.

For further information and instructions for application, contact the Department of Art, 102 Shaffer Art Building, 315-443-4613

**COURSES FOR NON-ART STUDENTS:** Some studio and academic courses are open to non-art majors:

PTG 203/204, 503/504, SCU 207,208,507,508.

## Department Of Drama

Timothy J. Bond, Producing Artistic Director, Department of Drama and Syracuse Stage

Ralph Zito, Chair

820 East Genesee Street, 315-443-2669

As an undergraduate conservatory-style theater training program that is both directly partnered with a professional theater company and part of a major

American university, SU Drama is uniquely positioned to train the next generation of professional theater artists. Students learn from faculty members who themselves are practicing professionals in every aspect of theater. The Department provides students with the opportunity to draw upon the unparalleled theater and art resources of London, England, or Florence, Italy, through study abroad. It also offers a unique drama experience through the Tepper Semester, a rigorous artistic training program in the culturally rich setting of New York City. Many of the alumni who have gone on to become highly respected writers, actors, directors, producers and designers return to campus occasionally to lecture, advise, and participate in informal discussions. Visiting artists working at Syracuse Stage or other professional venues in the area often conduct workshops or discussions with Drama students.

The Department of Drama offers four professional programs, leading to the B.F.A. degree: in theater design and technology, acting, musical theater, and stage management. It also offers a B.S. degree in drama. The Department of Drama is committed to ensuring that students receive a strong foundation in the theater in all of its forms. Undergraduates put classroom theory into practice and carry out the University's academic mission of Scholarship in Action through productions and community engagement.

The unique affiliation between the Drama Department and Syracuse Stage, an outstanding Equity theater company, provides opportunities for our students to gain professional experiences in all areas of study while working toward their undergraduate degrees. These two organizations share space in the same theater complex.

The faculty covers material in appropriate courses that includes plays by playwrights from all backgrounds. The practice of non-traditional casting affords students the opportunity to perform roles not traditionally assigned to them. Design/technical theater studio courses by nature invite and promote exploration of diversity in ideas, themes, and approach to visual presentation of plays; texts for assigned projects are chosen on the basis of ensuring a diverse experience. Academic topics courses (451/452) occasionally embrace themes directly relating to diversity. In addition, the following courses include issues of diversity:

#### Acting and Scene Study Courses

DRA 105 Introduction to Acting for Nonmajors  
DRA 125 /126 Introduction to Acting  
DRA 220 Introduction to Scene Study  
DRA 221 /222 Voice/Verse Practicum, I and II  
DRA 261 /262 Introduction to Musical Theater Practice, I and II  
DRA 305 Advanced Acting for Theater Minors  
DRA 320 Advanced Acting: Modern Drama  
DRA 321 /322 Advanced Voice Verse Practicum, I and II  
DRA 352 Survey of Theater History  
DRA 360 Community Actors Workshop  
DRA 362 Musical Theater Scene Study  
DRA 405 Advanced Acting Poetics for Nonmajors  
DRA 420 Advanced Acting: Poetic Drama  
DRA 523 Professional Audition Theory and Practice  
DRA 530 Advanced Actors Workshop

#### Design Courses

DRD 311/312 Scene Design  
  
DRD 321/322 Costume Design  
DRA 328 Stage Makeup

#### Academic Courses

DRA 115 /116 Introduction to the Theater  
DRA 260 Musical Theater Practicum  
DRA 352 Survey of Theater History  
DRA 355 /356 Development of the Theater and Drama, I and II  
DRA 451 /452 Topics in Theatrical and Dramatic History  
DRA 453 History of Musical Theater  
DRA 480 London Studios (London Program)  
DRA 315 Play Analysis and Introduction to Mise-en-Scène  
DRA 331 Introduction to Directing  
DRA 391 Introduction to Playwriting

#### B.F.A. Degree

The B.F.A. degree is the dominant degree in the drama department. Along with traditional drama requirements, students have the option of selecting support courses from the University's other professional schools, including art and music. Each program requires 94-100 credits in the selected discipline, drama and related support courses, which are selected by the student and advisor to achieve specific professional goals. The remaining 30 credits are devoted

to academic courses outside of the department.

During the first year of study, students in the Acting and Musical Theater Programs concentrate on building fundamental skills rather than on performance. Students in both programs share classes in acting, movement, and voice. In addition to these Core courses, Musical Theater students begin their training in dance and singing. Freshman Design and Technology Students begin their studies in art foundation, theater design and stagecraft, and in their second year begin studies specific to their area of interest (scenic, costume or lighting). Stage Management students begin with a foundation in theater, stage management, and stagecraft from the first year.

Continuation in the B.F.A. program in Acting or Musical Theater is based on faculty evaluation of the student's classwork and personal commitment at the end of the second year of study. However, this is not the only evaluation. All students in the department are evaluated periodically to see whether their commitment and development warrant continuation in the program they have selected.

#### B. S. Degree in Drama

The B.S. degree in Drama is structured much like the traditional arts and sciences degree and enables students to incorporate the intensive training of the drama program with a broad education in the liberal arts. Students interested in the B.S. degree may choose a track (concentration) in Acting, Directing, Playwriting or in Theater Technology, providing they have been admitted to and have completed a portion of the BFA program. However, Students may be directly admitted into the Theater Management B.S. track.

The B.S. degree requires 120 credits, including a minimum of 50 credits in the liberal arts, and a cumulative grade point average of 2.0 (C). In addition to the liberal arts distribution of requirements, students must select an 18-credit minor or academic specialization in an academic (non-studio) area of study. They may take additional credits if they wish to satisfy their own interests.

#### SYRACUSE STAGE

Syracuse Stage is a professional (LORT Equity) theater company. Together with the Department of Drama, it forms part of an unusual University-professional theater affiliation. The close relationship between a major professional theater serving the city and a vigorous University undergraduate program for training young professionals is fostered by their common home in one complex.

Drama students earn credits by assisting professional directors, designers, and technicians and by appearing in productions at Syracuse Stage; in turn, the staff of the professional theater is involved in all the productions of the drama department, supervising and assisting student designers and technicians with their work. Some student actors are cast in professional productions, and all students profit from the experience, advice, and example of professional actors, designers, directors, and resident staff working in the same building. A number of specialized drama department classes are taught by members of the Syracuse Stage staff who are part-time adjuncts to the faculty.

#### STUDY ABROAD

The College of Visual and Performing Arts, through Syracuse University Abroad, provides students in the Department of Drama with the opportunity to draw upon the unparalleled theater resources of London, England, or design resources in Florence, Italy, through study abroad. Coursework is designed to take advantage of the quantity and quality of London theater. A unique weekly acting workshop at the prestigious Globe Theatre\*, offered during the Fall semester, provides training in special skills such as stage movement and voice. Students may also take courses in the arts and sciences, communications, environmental arts, or management. A direct placement program with the London College of Fashion offers students majoring in costume design an opportunity to study costume design and technology during their junior year. Design students may choose to study in Florence, Italy, where rich cultural resources in art, theater, and opera provide an unforgettable educational experience.

\* Please note that participation in the Globe program is limited to 18 students annually.

For further information, contact the Office of Student Services, 204 Crouse College, or SU Abroad, 106 Walnut Place ([suabroad.syr.edu](http://suabroad.syr.edu)).

#### THE TEPPER SEMESTER: A NEW YORK CITY DRAMA EXPERIENCE

The Tepper Semester is a unique program from Syracuse University's Department of Drama that offers undergraduate students in advanced levels of acting, musical theater, design, and stage management the opportunity to immerse themselves in a rigorous artistic training program in the culturally rich setting of New York City.

Students in the Tepper Semester work closely with an accomplished faculty of professional, working artists who nurture the students' creative, intellectual, and personal growth. The faculty also helps students gain an understanding of the business skills essential for a rewarding and successful career in the industry.

Residency in New York City is an integral part of the Tepper Semester. Artistic training is fueled by the cultural and educational resources of the city. In addition to being exposed to a broad range of theater, they can experience museums, libraries, and various entertainment venues.

#### SYRACUSE UNIVERSITY DRAMA ORGANIZATION

The Syracuse University Drama Organization (SUDO) is the national chartered alumni club for SU drama alumni and friends in the entertainment industry. Based in New York City, SUDO's primary goals are to be a source of networking for drama alumni and to provide new and future alumni with mentoring assistance. To meet its goals, SUDO hosts many social, cultural, and fund-raising functions such as an annual reunion party, an Academy Awards party, a biannual cabaret, and a new play reading series. SUDO also publishes a regular newsletter available to members.

#### DRAMA MINOR

The Department of Drama currently offers a minor to those students enrolled in other courses of study. Students must petition the drama faculty, have a 2.5 grade point average, and have at least a sophomore standing. Fifteen students are accepted as minors each year on a "first-come, first-served" basis. Minors must fulfill 18 credits of class, including 3 credits of introduction to the theater (DRA 115 ) and 3 credits of theater history (DRA 352 ,355, or 356). At least 9 of the remaining 12 credits must be in upper-level classes. Students may select courses from among classes in history, dramatic literature,

theater management, theater design and technology, acting for nonmajors, and others.

#### COURSES FOR NON-DRAMA STUDENTS

Non-drama students are welcome in DRA 105, 315, 352, 355, 356, 305, 405, 491 and DRD 555 Evolution of Stage Design as well as in ART 250 and 253 (offered by the School of Art and Design).

## Communication And Rhetorical Studies

Contact Charles Morris, Chair, 100 Sims Hall, 315-443-2308  
#faculty#

Communication and Rhetorical Studies constitute the fiber with which we weave a framework of interaction among and between people, groups, and society. It is a highly complex process requiring observation, examination, and dynamic personal involvement. A comprehensive education based on a mastery of all the aspects involved in communication and rhetorical studies guarantees the student life-long benefits academically, personally, and professionally.

The Department of Communication and Rhetorical Studies at Syracuse University prepares students to become adept thinkers, competent decision makers, and versatile professionals. Individuals skilled in the theory and practice of communication and rhetorical studies have almost unlimited career opportunities. They are found in every business and profession. The majority of communication and rhetorical studies majors pursue careers in internally oriented corporate and organizational communication and/or externally oriented corporate and public information. In recent years, virtually every graduate of the Department of Communication and Rhetorical Studies has received and accepted a challenging job offer, continued on to a professional school, or pursued a graduate degree in communication and rhetorical studies.

The world is increasingly more dependent on a complex system of communication. Individuals equipped with finely tuned skills in the area of communication are highly sought by potential employers and highly valued by society as a whole. The Department of Communication and Rhetorical Studies offers students the opportunity to make the most of their potential by making the most of the program.

The Department of Communication and Rhetorical Studies is devoted to the study of human symbolic activity, chiefly as it is constituted through spoken language. Communication and rhetorical studies is envisioned as a fundamental human process through which individuals learn to adapt to and create linkages with their social, psychological, and physical environments; develop higher mental processes; and regulate their own behavior as well as that of others. Education in communication and rhetorical studies at Syracuse University focuses on the development of communication competence; students learn how communication is used in constructing social contexts and in articulating decisions to achieve specific outcomes.

Aware that message-related behaviors vary as participants, settings, and conditions change, departmental faculty use a variety of methods and theories to investigate and explain the richness in human communicative behavior. Appropriately, the Department of Communication and Rhetorical Studies embraces and embodies a pluralistic view in its approach to instruction in communication and rhetorical studies.

The Department of Communication and Rhetorical Studies embraces diversity as a core component in its curricular offerings. People always communicate within particular contexts, creating unique and complex relationships between speakers, messages, audiences, and occasions. Responding to this, the department has ensured that most courses address the concept of diversity and develop students' cultural awareness and ability to adapt and respond to the demands of the communication situations they encounter and create.

Students pursue a B.S. degree in communication and rhetorical studies by taking 36 credits in communication and rhetorical studies, 54 credits in arts and sciences, and 30 credits in University-wide electives. In this program, students integrate studies in communication and rhetorical studies with courses from other professional schools and the College of Arts and Sciences.

#### Special Services and Programs

##### HONORS IN COMMUNICATION AND RHETORICAL STUDIES

Outstanding students are encouraged to pursue honors in communication and rhetorical studies. Exceptional students may undertake a project of their own choosing under the direction of a faculty member. Project reports are presented at the end of the semester.

For further information about the Honors Program, contact the Office of Student Affairs, 204 Crouse College, or the Honors Program, 306 Bowne Hall.

##### STUDY ABROAD

The College of Visual and Performing Arts, through the Syracuse University Abroad (SU Abroad), provides communication and rhetorical studies majors with the opportunity to study in London or Madrid. Students may participate for a semester or a year.

Normally, communication and rhetorical studies courses are offered only in the spring semester.

Students may choose from courses in communication and rhetorical studies and complete their course loads by selecting from a wide range of courses in arts and sciences, management, public communications, and human services.

For further information, contact the Office of Student Affairs, 204 Crouse College, or SU Abroad, 106 Walnut Place (suabroad.syr.edu).

## Setnor School Of Music

Patrick M. Jones, Director

The Setnor School of Music offers opportunities for the highest level of professional musical development and accomplishment in our students within the context of a broad, humanistic education. We encourage the widest possible range of creative options for our students, recognizing that the Western classical tradition continues to grow and expand and that it is only one in a world of myriad others. We believe all our areas of emphasis — instrumental and vocal performance, conducting, music education, music industry, and composition — are interdependent and integral to the success of the school, the health of the profession and the evolution of culture, and we therefore strive for the highest standards in every one of these degree programs. We recognize that inherent in these endeavors is a responsibility to the campus community, the community beyond campus borders, and our culture as a whole. Hence, we are committed to serving a larger public through outreach and education, working to create an inclusive environment in which all can develop their gifts.

Setnor's four departments offer the Bachelor of Arts degree in music, Bachelor of Music degree in composition, music education, music industry, performance, and sound recording, and the Bachelor of Science degree in entertainment industries. Setnor offers graduate degrees in composition, conducting, music education, music industry, performance, and vocal pedagogy, and minors in jazz studies, music industry, performance, and private music study. A unique program in music industry allows selected students to pursue a five-year double degree program culminating in a Bachelor of Music in Music Industry from Setnor and a Master of Business Administration from the Whitman School of Management.

The school has organic relationships with other entities on campus including the College of Arts & Sciences' Department of Art & Music Histories, which provides all the core courses in music history, the School of Education, which provides dual enrollment for all music education majors, and the Newhouse School of Public Communications and the Whitman School of Management for majors in music and entertainment industries. Setnor maintains a professional caliber recording studio in the Bird Library's Belfer Audio Archives, provides all athletic band support for SU Athletics, and collaborates with Hendricks Chapel to provide the University Organist and Hendricks Chapel Choir.

Setnor offers a semester in Los Angeles in cooperation with the Newhouse School, semesters in London and Strasbourg, and a biannual week in Brazil through SU Abroad. The semester in Strasbourg includes study at the Conservatoire de Strasbourg.

All of Setnor's music ensembles, including bands, choirs, jazz ensembles, symphony orchestra, and chamber ensembles are open to all students on campus. Setnor presents over 200 performances annually during the 28-week academic year that are open to the public and webcast on the Internet. It also maintains a large inventory of musical instruments including 67 pianos, historic keyboards, four organs, and an inventory of all traditional band and orchestral instruments. The school maintains and operates the Crouse Chimes and historic Setnor Auditorium with its iconic 3,823-pipe Holtkamp organ.

## ADMISSION

Admission to the Setnor School of Music is via audition. See the website for audition information.

## Communication And Rhetorical Studies

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### The Department Of Communication And Rhetorical Studies

The Department of Communication and Rhetorical Studies supports a theory-based program emphasizing leadership by developing communication skills and a sophisticated understanding of communication as a creative process. Communication is recognized as central to the development of all things social: interpersonal relationships, social roles, personal identities, organizational cultures, and the like. Understanding exactly how and why the process works is important to every career. Syracuse's program goes far beyond the common practice of public speaking. Instead, the department emphasizes the full range of communication practices: everyday conversation, group decision making, organizational communication, political communication, speech making, rhetorical criticism, and intercultural communication.

Opportunities for study abroad experiences include London, England, and Madrid, Spain.

## Drama

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### The Department Of Drama

The Department of Drama has a unique affiliation with Syracuse Stage, an Equity theater company, and has specialized facilities, including three theater spaces and a cabaret space, enabling students to participate in every dramatic activity, from stage management, stagecraft and design to acting and directing. Students learn from faculty members who themselves are practicing professionals in every aspect of theater. The department provides students with the opportunity to draw upon the unparalleled theater and art resources of London, England, or Florence, Italy, through study abroad. It also offers a unique drama experience through the Tepper Experience, a rigorous artistic training program in the culturally rich setting of New York City. Many of the alumni who have gone on to become highly respected writers, actors, directors, producers and designers return to campus occasionally to lecture, advise, and participate in informal discussions. Visiting artists working at Syracuse Stage or other professional venues in the area often conduct workshops or discussions

with Drama students.

## School Of Art And Design

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### The School Of Art And Design

The School of Art and Design is an accredited institutional member of the National Association of Schools of Art and Design, has a long tradition of offering students the opportunity to develop their artistic talents and obtain a broad liberal arts education. Students learn from faculty members who are not only teachers, but also practicing artists and designers, with work in major museums, international exhibitions, and professional commercial venues. The school offers programs of study at the undergraduate level in art, design, and transmedia; it also maintains study programs in Florence, Italy; Prague, Czech Republic; and London, England. In addition, the school works in cooperation with the SU Art Galleries, Syracuse University Library's Special Collections Resource Center; the University's textile and historic costume collections, and COLAB.

## Setnor School Of Music

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### School Of Music

A charter member of the National Association of Schools of Music in 1928, the Setnor School of Music has a long tradition of high-quality education for serious music students. Its programs reflect a concern for academics as well as professional studies. The school offers its students opportunities to prepare for careers as performers, composers, arrangers, scholars, teachers, and professionals in the music industry. Students learn from faculty members who are themselves actively involved in music-making. Students, faculty, and visiting artists perform on campus throughout the year, as do symphonic, chamber, opera, and choral groups.

## Academic Offerings

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### Acting

Contact Department of Drama, 820 East Genesee Street, 315-443-2669

Faculty Gerardine M. Clark, Felix Cochren, Stephen Cross, Timothy Davis-Reed, Rodney S. Hudson, Elizabeth Ingram, Malcolm Ingram, Victor Lazarow, Celia Madeoy, Ralph Zito

The BFA program in acting takes full advantage of the resources provided by Drama Department faculty, the University, and the Department's relationship with Syracuse Stage in order to provide emerging professional theater artists with rigorous training in performance technique, text analysis, voice, speech and actor movement. Students are immediately immersed in a program of pre-professional study in their first year, devoting as many as 18 hours of class time per week to various theater arts. Students who are interested in directing and playwriting may elect to take additional courses in these areas under drama support requirements. All students are required to take coursework in writing.

Although first-year students are not permitted to perform on stage for the public, they work on productions behind the scenes in a wide variety of jobs, ranging from running crews to assistant stage managing. From the second year on, students may audition for roles in: faculty-directed productions and scenes and plays directed by students; films produced by undergraduate and graduate film students; and productions outside the department, including Syracuse Stage productions in appropriate roles or as understudies where union rules permit the use of non-Equity actors. Equity points may be earned through work with Syracuse Stage. As many as 20 to 30 productions may be produced in the theater complex in one year.

Students are encouraged to become proficient in more than one area of theater and may take courses in theater management, design, and stage crafts, some of which are taught by Syracuse Stage professionals.

The B.F.A. acting degree program requires 124 credits.

#### B.F.A. ACTING DEGREE REQUIREMENTS

First Year, Fall Semester

DRA 090 Theater Laboratory 0-1

DRA 115 Introduction to the Theater 3

DRA 125 Introduction to Acting 3

DRD 115 Introduction to Theater Production 2

WRT 105 Writing Studio 1 3

Academic Electives 6

17

First Year, Spring Semester

DRA 090 Theater Laboratory 0-1  
DRA 116 Introduction to the Theater II 3  
DRA 126 Introduction to Acting II 6  
DRD 116 Introduction to Theater Production II 2  
WRT 205 Writing Studio 2 3  
Academic Elective 3  
17

Sophomore Year, Fall Semester

DRA 090 Theater Laboratory 0-1  
DRA 355 Development of Theater and Drama 3  
DRA 220 Introduction to Scene Study 3  
DRA 221 Voice/Verse Practicum I 3  
DRA 273 Movement for Actors 2  
Drama Literature 3  
Drama Elective 3  
17

Sophomore Year, Spring Semester

DRA 090 Theater Laboratory 0-1  
DRA 356 Development of Theater and Drama 3  
DRA 220 Introduction to Scene Study 3  
DRA 222 Voice/Verse Practicum II 3  
DRA 274 Movement for Actors 2  
Drama Elective 3  
Academic Elective 3  
17

Junior Year, Fall Semester

DRA 090 Theater Laboratory 0-1  
DRA 320 Advanced Acting: Modern Drama 3  
DRA 321 Advanced Voice/Verse Practicum 3  
DRA 373 Advanced Movement for Actors 3  
Academic Electives 6  
15

Junior Year, Spring Semester

DRA 090 Theater Laboratory 0-1  
DRA 420 Advanced Acting: Poetic Drama 3  
DRA 322 Advanced Voice/Verse Practicum II 3  
DRA 374 Advanced Movement for Actors II 3  
Drama Literature 3  
Drama Elective 2  
Academic Elective 3  
17

Senior Year, Fall Semester

DRA 090 Theater Laboratory 0-1  
Drama Elective 6  
DRA 323 Scene Study with Directors 3  
Upper Level Acting 3  
12

Senior Year, Spring Semester

Upper-level Acting 3  
Drama Elective 6  
Academic Elective 3  
12

Total 124

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## Animation

Minor in Animation

Contact: Annina Ruest, Computer Art, arust@syr.edu

The VPA Minor in Animation and Visual Effects creates a focus for students interested in animation and visual effects production. The core requirements of this minor introduce professional animation and visual effects techniques, which then are applied to advanced collaborative courses focusing on one of the two emphasis (or both). The menu selection courses allow students to investigate studies that are critically related to the topic, allowing for both broad and specific research geared towards their own particular interests.

#### Admission requirements

Students interested in this minor should meet with the faculty contact. Prospective students must submit a current transcript, a letter of interest not to exceed 1500 words, and any work in the form of digital media files on CD or DVD that may be related to the minor. There are no absolute requirements in terms of number of works or GPA – acceptance into the minor will be made solely by the faculty contact for the minor upon review of application materials. Students need to maintain a 3.0 GPA average in the minor curriculum; otherwise they may be disenrolled from the minor.

#### Curricular Requirements

Core requirements (9 credits)

CAR 101 Introduction to 3D Animation and VFX (3)

CAR 201 Intermediate 3D Animation and VFX (3)

CAR 301 Advanced 3D Animation and VFX (3)

Advanced core requirements – choose any 2 of the following (6 credits)

CAR 401 Animation Workshop I (3)

CAR 402 Visual Effects Workshop I (3)

CAR 501 Animation Workshop II (3)

CAR 502 Visual Effects Workshop II (3)

Menu selection - choose any 2 of the following (6 credits)

CAR 302 Previz for Animation (3)

FIL 321 Filmmaking: Animation (3)

ART 250 Filmmaking: Cinematic Modes (3)

ILL 273 Drawing for Illustration (3)

ILL 274 Sequential Illustration (pre-req ILL 273) (3)

DRA 105 Intro to Acting for non-majors (3)

CAR 415 History of Animation (3)

CAR 120 Experimental Animation (3)

FIL 228 Film Scriptwriting (3)

FND 114 Drawing through the Figure (3)

FND 114 Narrative Drawing (3)

PTG 353 Anatomy (3)

SCU 295 Introductory Sculpture (3)

FIL 225 Problems in Film Perception (3)

Total Credits: 21

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## Art Education

Contact: Dr. James H. Rolling Jr, Department of Art, Comstock Art Facility Rm 043, 315-443-2355 or [jrolling@syr.edu](mailto:jrolling@syr.edu)

School of Education contacts: Carol Radin or Pam Hachey, Academic Advisors, 111 Waverly Avenue, Suite 230. 315-443-9319.

College of Visual & Performing Arts contact: Michele Buza, Academic Advisor, 204 Crouse College, 315-443-2517.

The Bachelor of Fine Arts (B.F.A.) degree program in art education emphasizes the studio arts as an exploration of the ideas, materials, and aesthetics through which we shape meanings, negotiate identity and organize society. Students will obtain an expertise in the development of arts-based and design-oriented curricula linked to national and New York State learning standards for the visual arts and promoting multiliteracies, inclusivity, critical inquiry and social responsibility.

In this program, students dually enroll in the College of Visual and Performing Arts and the School of Education. Studio arts courses and interdisciplinary electives are encouraged in combination with educational theory and cultural foundations as students prepare to be professional teachers of art. At a minimum, the B.F.A. degree in art education can be earned with the satisfactory completion of 127 credits (129 for anyone who enters the program fall 2011 or later).

In the junior year of the program, students have the opportunity to teach art lessons to children ages 5 to 15 in weekly workshops that prepare you for

student teaching in local schools in your senior year. The Syracuse University Student Art Education Association, a chapter of the National Art Education Association, is open to both undergraduate and graduate students in art education. This organization is dedicated to offering preservice art teachers, as well as any interested art and preservice education students, opportunities to enrich their pedagogical practice by facilitating social and networking opportunities for professional development, hosting guest speakers, and promoting and practicing outreach and community service through the arts.

After passing the requisite New York State exams (or state-specific certification exam requirements if you plan to teach in another state), you will be eligible for initial certification as an art teacher in all grades. Career services are available through the School of Education.

## PROGRAM REQUIREMENTS

Foundation 30 credits

Professional education 36 credits

Studio concentration 21 credits

Art history 6 credits

Academic electives 16 credits (15 credits for anyone entering the program fall 2011 or later)

Studio electives 15 credits

Academic requirements (WRT 205) 3 credits

Total credits 127 (129 for anyone entering the program fall 2011 or later)

### First Year, Fall Semester

ART 101 First-year Colloquium (0 credits)

WRT 105 Writing Studio 1 (3 credits)

FND Studio (6 credits)

Art or design history foundations (3 credits)

Academic electives (3-6 credits)

Total credits 15-18

### First Year, Spring Semester

Art or design history (3 credits)

FND studio (3 credits)

FND studio (3 credits)

Academic electives (3-6 credits)

WRT 205 Writing Studio 2 (3 credits)

Total credits 15-18

### Sophomore Year, Fall Semester

AED 215 Foundations of Art Education (3 credits)

Studio breadth (3 credits)

Studio depth (3 credits)

Art history (3 credits)

Academic electives (6 credits)

Total credits 15

### Sophomore Year, Spring Semester

EDU 204 Learning in Inclusive Classrooms (4 credits)

Studio breadth (6 credits)

Studio depth (3 credits)

Academic elective (3 credits)

Total credits 16

### Junior Year, Fall Semester

EDU 304 Study of Teaching (4 credits)

EDU 301 Methods and Practice in Teaching Art (3 credits)

EDU 301 Lab (Saturday workshops) (0 credits)

Studio breadth (3 credits)

Studio depth (3 credits)

Academic elective (3 credits)

Total credits 16

### Junior Year, Spring Semester

RED 326 Literacy Across the Curriculum (4 credits)

EDU 302 Methods and Curriculum in Teaching Art (3 credits)

EDU 301 Lab (Saturday workshops) (0 credits)

Studio depth (6 credits)  
Academic elective (3 credits)  
Total credits 16

#### Senior Year, Fall Semester

Academic elective (3 credits)  
Studio breadth (3 credits)  
Studio depth (6 credits)  
Art history (3 credits)  
Total credits 15

#### Senior Year, Spring Semester

AED 510 Special Problems in Art Education (3 credits)  
EDU 508 Student Teaching (12 credits)  
Academic Elective (1 credit--not required for those entering the program fall 2011 or later)  
SPE 412 Adapting Instruction for Diverse Student Needs (3 credits--ONLY required for those entering the program fall 2011 or later)  
Total credits 15 (18--for anyone entering the program fall 2011 or later)

One academic elective course must be taken in each of the following areas:

- Mathematics: (MAT 117 or higher) (3 credits)
- Natural Science: (BIO, CHE, AST, EAR, PHY, GEO 155, SCI 104 or 105) (3 credits)
- Humanities (Other than arts related) (3 credits)
- Social Science: (Other than history or psychology) (3 credits)
- Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study. If requirement has already been met, one 3-credit liberal arts elective must be taken in its place.

#### Required Child Health And Life Safety Seminar Covering The Following Topics:

Identifying/reporting child abuse  
Violence prevention  
Child abduction prevention  
Highway/general safety  
Alcohol/drug/tobacco prevention  
Fire and arson prevention

Consult with the School of Education, 111 Waverly Avenue, suite 230, regarding other New York State requirements for graduation and certification.

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## Art Photography

Contact Doug DuBois, Department of Transmedia, 102 Shaffer Art Building, 315-443-1033.  
<http://vpa.syr.edu/art-design/transmedia/undergraduate/art-photography>

This B.F.A. degree program is designed for art students who wish to use photography as their primary creative medium. The 129 -credit program allows students to examine both traditional and contemporary aspects of fine art photography. Coursework provides thorough training in black-and-white, color, digital photography, and lighting. Special emphasis is placed on critique and the study of photographic history, criticism, and contemporary models. Work is encouraged in contemporary media, such as computer imaging, film, and video, as well as studies in art history and printmaking. Students who are interested in advertising and related fields often select electives in communications design.

Excellent facilities include black-and- white and color darkrooms. Digital facilities include: film scanners, archival inkjet printers and computers stations for image editing. Digital SLR's, medium and large format film cameras, and an extensive array of lighting equipment are available for check out. A shooting studio is equipped for all formats of digital and analog photography.

Undergraduate students also benefit from the department's close association with Light Work, a nonprofit organization on campus that sponsors and internationally renowned visiting artist program and exhibitions in the Robert B. Menschel Photography Gallery. In addition, the Department of Transmedia maintains its own gallery space for exhibitions and events, organized by graduate and undergraduate students.

MAJOR REQUIREMENTS First Year, Fall Semester TRM 151 Colloquium I 3 TRM 153 Studio Concepts 3 Academic elective 3  
Studio elective 3  
WRT 105 Writing Studio 1 3 15

First Year, Spring Semester  
TRM 152 Colloquium II 3  
TRM 154 Interconnected Studio 3

APH 261 Art Photography Introduction 3 Academic elective 3  
WRT 205 Writing Studio 2 3 15  
Sophomore Year, Fall Semester  
TRM 251 Intermediate Transmedia Studio 3 APH 262 Art Photography: Introduction II 3 Academic elective 3  
Studies in culture 3 Studio electives 6 18  
Sophomore Year, Spring Semester APH 263 Advanced Digital Imaging 3 Studies in culture 3

Academic electives 6 Studio elective 3 Choose one: 3  
APH 563 Nontraditional modes  
APH 564 Image/Sequence: The Photo Book APH 565 Performance Art  
APH 566 Photography and Cinema 18

Junior Year, Fall Semester

TRM 351 Advanced Transmedia Studio 3 APH 361 Lighting for Photography 3 Studio elective 3  
Academic elective 3 Studies in culture 6 18

Junior Year, Spring Semester  
APH 362 Junior Seminar 3  
APH 561 Contemporary Art and Photography or 3  
APH 562 Contemporary Critical and Theoretical Texts on Art and Photography 3 Studies in culture 3  
Academic elective 3 Studio elective 3 15

Senior Year, Fall Semester

TRM 451 Transmedia Synthesis 3 APH 461 Senior Seminar 3 Academic elective 3  
Studio elective 3 Studies in culture 3 15  
Senior Year, Spring Semester  
APH 462 B.F.A. Exhibition and Portfolio 3 Studio elective 3  
Studies in culture 3 Academic electives 6 15

Transmedia core 21  
Writing 6  
Depth 27  
Studio electives 24  
Academic electives 30  
Studies in culture 21

Total 129

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## Art Photography Minor

Contact:  
Yasser Aggour, Associate Professor, Transmedia Studies, 102 Shaffer Art Building, [yaggour@syr.edu](mailto:yaggour@syr.edu)

Admission:  
Minimum GPA of 3.5  
Portfolio Review (see Yasser Aggour for details)  
Students will be admitted into the minor program upon the completion of a portfolio review after taking at least two of the following courses: APH 261, 262, 263

Requirements:  
Minimum of 18 credits, 12 of which must be in 300 to 400-level coursework.

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## Art Video

Contact Tom Sherman, Department of Transmedia, 102 Shaffer Art Building, 315-443-1033.  
Faculty Tom Sherman, Emily Vey Duke  
<http://vpa.syr.edu/art-design/transmedia/undergraduate/art-video>

The art video degree program addresses video as a medium for making contemporary art. This B.F.A. degree major emphasizes conceptual development and video design skills grounded in advanced production and post-production studio work. Within the context of the Department of Transmedia, The video option encourages a multidisciplinary approach to video, providing opportunities for students to interact with fellow students majoring in art photography, computer art, and film. Art video majors are immersed in the history and theory of moving image/sound relationships so that their work is informed and strengthened.

Art video maintains an active visiting artists program and one of the best collections of artists' video in the United States. Students investigate the many ways video technology is used creatively today: as single channel works challenging the conventions of narrative and documentary form; as a visual art form integrating computer-generated images, audio experimentation, and performance art; as a primary source of creative content for the World Wide Web and as a sculptural medium used in site-specific installations. Beginning courses examine technical principles, and assignments introduce students to the video medium's complex nature and potential power. At first, students develop ideas with their instructors, but in the junior and senior years, their work becomes increasingly self-directed. The goal is the emergence of independent, personally motivated work.

The art video program is supported by a multiple-format video facility. Production equipment includes mini-DV camcorders, digital audio field recorders, and necessary peripherals. Post-production suites include digital non-linear editing systems; multi-format, multi-standard dubbing stations; dedicated, digital, non-linear audio-to-video suites; a large green-screen shooting stage; and access to other University facilities that further complement post-production work.

This major is designed to prepare students for careers in video art (a multidisciplinary field focused on creative video information design).

In addition to becoming independent video artists, art video graduates may become specialists in a growing number of professional sectors, including music video and World Wide Web content provision, and production and post-production for the education, training, publishing, and entertainment industries, forensic, environmental and political media analysis, as well as in-house video producers for major corporations in the United States and abroad.

MAJOR REQUIREMENTS First Year, Fall Semester TRM 151 Colloquium I 3 TRM 153 Studio Concepts 3 Academic elective 3  
Studio elective 3

WRT 105 Writing Studio 1 3 15

First Year, Spring Semester

TRM 152 Colloquium II 3

TRM 154 Interconnected Studio 3 VID 211 Video Sketchbook 3 Academic elective 3

WRT 205 Writing Studio 2 3 15

Sophomore Year, Fall Semester

TRM 251 Intermediate Transmedia Studio 3 VID 212 Introduction to Art Video 3 Academic elective 3

Studies in culture 3 Studio elective 3 15

Sophomore Year, Spring Semester

VID 310 Studies in Art Video 3

VID 313 Advanced Post-Production Techniques 3

Studies in culture 3

Academic electives 6

Studio elective 3 18

Junior Year, Fall Semester

TRM 351 Advanced Transmedia Studio 3 VID 311 Intermediate Art Video I 3 Studies in culture 3

Studio elective 3 Academic elective 3 15

Junior Year, Spring Semester

VID 312 Intermediate Art Video II 3 Studies in culture 6

Academic elective 3 Studio electives 6 18

Senior Year, Fall Semester

TRM 451 Transmedia Synthesis 3 VID 411 Advanced Art Video 3 VID 510 Video Art History 3 Academic elective 3

Studio elective 3 Studies in culture 3 18

Senior Year, Spring Semester

VID 412 Art Video Thesis Project 3 Studio elective 3

Studies in culture 3 Academic elective 3 Academic elective 3 15

Transmedia core 21 Writing 6

Depth 27

Studio electives 24 Academic electives 30 Studies in culture 21

Total 129

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## Arts And Sciences/Art

Contact: Prof. Gary Radke, Art and Music Histories

Suite 308 Bowne Hall

315-443-9198

To arrange a required portfolio review: Office of Recruitment, College of Visual and Performing Arts, 202 Crouse College, 315-443-2769.

Coordinator for College of Visual and Performing Arts: Sarah McCoubrey, Chair, Foundation Program, School of Art and Design, 102 Shaffer Art Building, 315-443-4613.

Art faculty: See "Faculty, College of Visual and Performing Arts, School of Art and Design"

The special options degree program in arts and sciences/art is designed for students who wish to include studio arts in conjunction with studies in humanities and/or sciences. The option permits any major in the College of Arts and Sciences to be joined with studio arts work. The degree awarded at the completion of undergraduate study is a B.A. in the arts and sciences major with the supplementary designation "and art." The degree is singly awarded by the College of Arts and Sciences.

#### REQUIREMENTS

Under no circumstances will students be permitted to enter this special program after they have completed the first semester of their sophomore year. A portfolio is required for admission into the program.

#### Arts and Sciences Requirements

At least 90 credits must be completed in the College of Arts and Sciences (including the arts and sciences core, usually 60 credits). Students also complete an arts and sciences major (usually 30 credits) and 6 credits of upper-division art history.

#### School of Art and Design Requirements

The 30-credit option involves 15 credits of introductory design, drawing, and painting, followed by 15 elective credits in painting, drawing, fiber arts, ceramics, and/or sculpture.

Basic Design	FND 115, FND 117	6
Drawing	FND 113, FND 114	6
Painting	PTG 203, PTG 204	3
Studio arts electives		15

All FND (Foundation) course requirements (12 credits) must be completed within the first 3 semesters of enrollment in the program. Moreover, students must complete at least 9 credits of their 12-credit FND requirements BEFORE they will be allowed to enroll in upper-level courses.

There is no provision for advanced work in non-studio areas of the School of Art and Design, leading to degrees such as the B.F.A. or B.L.D.

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## Ceramics BFA

Our bachelor of fine arts (B.F.A.) degree program in ceramics helps you become a professional ceramist. We encourage you to explore several directions: pottery, sculpture, tile mosaics, and other areas as you focus on the specialty that interests you most.

#### REQUIRED FOUNDATION— 27 CREDITS

First Year Colloquium 0-1 ART 101  
History of Modern Art 3 ART 111  
History of Modern Design 3 ART 113  
Foundation Drawing 3 FND 113  
Creative Process – 2D 3 FND 115  
Dimensional Arts 3 FND 117  
Time Arts 3 FND 111  
Elective 3  
Elective 3  
Elective 3

#### CERAMICS COURSES – 33 CREDITS

Intro. To Ceramics I 3 CER 221  
Intro. To Ceramics II 3 CER 222  
Intro. To Wheel Throwing I 3 CER 223  
Intro. To Wheel Throwing II 3 CER 224  
Inter. Ceramics Sculpture or 3 CER 321  
Inter. Wheel Throwing 3 CER 323  
Inter. Ceramics Sculpture or 3 CER 322  
Inter. Wheel Throwing 3 CER 324  
Clay and Glass Technology I 3 CER 327  
Clay and Glass Technology II 3 CER 328  
Adv. Ceramics Sculpture or 3 CER 421  
Adv. Wheel Throwing 3 CER 423  
Adv. Ceramics Sculpture or 3 CER 422  
Adv. Wheel Throwing 3 CER 424  
Ceramics Elective 3

ACADEMIC REQUIREMENT – 6 CREDITS

Writing Studio I 3 WRT 105

Writing Studio II 3 WRT 205

STUDIO ELECTIVES – 30 CREDITS

ART HISTORY – 9 CREDITS

ACADEMIC ELECTIVES – 21 CREDITS

Total Foundation.....27

Total Studio Concentration.....33

Total Art History.....9

Total Studio Electives.....30

Total Academic Electives.....21

Total Academic Requirement..... 6\_

Total Credits 126

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## Ceramics Minor

The 110-year-old Ceramics Program in Syracuse University's School of Art and Design is ideally positioned to offer a Minor degree in Ceramics to all undergraduate students of the university. With the combination of three full-time faculty, a technician, extensive facilities and highly qualified graduate students, the Ceramics Program is more than capable to provide a Minor degree.

While candidates for this degree may come from any discipline within the University, the Ceramics Program has a history of attracting students from Architecture, Industrial Design, Geology, Engineering and Business. The Ceramics Program teaches equally to the fine art major, as well as students of craft and to the many architectural and industrial practices that involve ceramic processes. The field of ceramics has direct historical ties with design, engineering, architecture, geology, business and studies in art history. Indirectly the connections broaden to incorporate literature, poetry, philosophy and politics as they pertain to the ceremonies and content that surround ceramic objects and their relevance to cultural identity.

The prospective advantage of minors working alongside majors is very exciting considering the different expertise that students from other majors at the University will bring to their ceramic work and to the content and conversation among the studio arts major population in the Ceramics Program. This has been the experience of the Ceramics Faculty over the years as they have numerous exceptional and engaged students expressing a desire to minor in this exciting and historically rich major.

### ADMISSION REQUIREMENTS:

- 3.0 gpa
- Must enter by the beginning of Junior Year.
- Limit of 18 students accepted at any one time (subject to review). (Open to campus as a whole)
- Rolling admission. Requires review meeting with all f/t faculty in Ceramics Program.

### FACULTY SUPERVISION:

- Students accepted into the Minor will be assigned a faculty advisor from the f/t faculty in the Ceramics Program.

### CURRICULUM REQUIREMENT:

- 18 total credit hours for completion of Minor
- 2 Courses (6 cr.) from the following suite of introductory courses:
  - CER 223 (Introduction to Wheelthrowing History/Methods 3 cr.)
  - CER 224 (Second Semester Wheelthrowing History/Methods 3 cr.)
  - CER 221 (Introduction to Handbuilding History/Methods 3 cr.)
  - CER 222 (Second semester to Handbuilding History/Methods 3 cr.)
- CER 323/324 (Intermediate/Advanced Wheelthrowing 6 cr.) AND/OR
- CER 321/322 (Intermediate/Advanced Handbuilding 6 cr.)
- CER 423/424 (Advanced Wheelthrowing 6 cr.) AND/OR
- CER 421/422 (Advanced Handbuilding 6 cr.)
- Courses that may be substituted after completing 6 credits from the Introductory Suite of courses:
  - CER 327/328 (Clay and Glaze Technology 6 cr.)
  - CER 524 (Ceramic Research Problems – variable credit 1-6cr.).

These substitutions will allow the advisor to individualize the course content to the student and take advantage of the most relevant of the current offerings in the Ceramics Program.

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## Communication And Rhetorical Studies

Faculty Richard W. Buttny, Anne Demo, Cynthia Gordon, Diane Grimes, Arthur D. Jensen, Kenneth M. Johnson, Amos Kiewe, Kendall Phillips, Amardo Rodriguez, Bradford Vivian

This program allows students to integrate their individual professional interests with a thorough background in communication and rhetorical studies and a selection of arts and sciences courses. The 120 credits required for the B.S. degree are divided into 36 credits in communication and rhetorical studies, 54 credits in arts and sciences, and 30 credits in University-wide electives.

### MAJOR REQUIREMENTS

Students must complete a total of 120 credits. Of these, 36 credits must be in communication and rhetorical studies, including CRS 181, 183, 225, and 287. Students must also take 54 credits in arts and sciences, including 6 credits in writing (English); 6 credits in the natural sciences and mathematics; 6 credits in the social sciences; 6 credits in the humanities, including foreign language proficiency at a 102 level (American Sign Language does not fulfill this requirement, although it can be taken as an Arts and Sciences elective); and 30 credits in areas supporting their studies in communication.

As of the academic year 2005-06, all communication and rhetorical studies majors who also pursue a second major, an additional minor, or attend one of the SU Abroad centers for a semester, are allowed to enroll in up to 57 credits in non-arts-and-sciences courses. This modification means that communication and rhetorical studies majors who fall under one or more of the above categories (double major, minor, or SU Abroad) are no longer required to pursue 54 credits in arts and sciences courses but are given greater flexibility in taking more non-arts-and-sciences courses. Please note that the current requirements, including WRT 105, WRT 205, two humanities courses, two science courses, two social science courses, and a language proficiency at the 102 level (for a total of 27 credits), remain intact.

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## Communication And Rhetorical Studies - Minor

The minor in communication and rhetorical studies serves as an excellent complement to almost any major. Students have the opportunity to enhance their communication skills as well as develop a sophisticated understanding of communication processes in a variety of social and professional contexts. To complete the minor, students take one of two introductory survey courses, one of five 200-level theory/skills/application courses, and four elective offerings at the 300-500 level.

### Admission Requirements

- 3.0 GPA (based on completion of 30 credits)
- Must enter program no later than second semester of sophomore year
- Limited to 30 students
- Applications accepted at any time, but will adhere to an October 15 deadline for processing and approval in the fall semester (March 1 for spring semester)
- To enroll in the communication and rhetorical studies minor, students must complete a petition form available from the department secretary) and submit it to the department chair for approval.

### Curricular requirements

18 credits, including the following:

Two required courses (6 credits):

One 100-level course:

CRS 181 Concepts and Perspectives in Communication Studies or

CRS 183 Concepts and Perspectives in Rhetorical Studies

One from the following:

CRS 225 Public Advocacy

CRS 331 Interpersonal Communication

CRS 333 Small Group Communication

CRS 334 Argumentation

Four elective courses (12 credits):

- Must be 300-level or above (but may not include experience credit courses)
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## Communications Design

[http://coursecatalog.syr.edu/2013/programs/communications\\_design](http://coursecatalog.syr.edu/2013/programs/communications_design)

Contact:  
Robert Cooney, racooney@syr.edu  
Department of Design, Warehouse, 3rd Floor, 315-443-2455

Faculty Robert Cooney, Kenneth Hine, Roderick Martinez, William Padgett

This B.F.A. degree program introduces a field offering almost unlimited options and professional opportunities. Its unique structure enables students to pursue either a broad range of interests or to specialize in one or two particular areas of communications design. Corporate graphics and identity systems, advertising, packaging, environmental graphics, exhibition design, direct mail and direct response marketing, magazine or book design, television and film graphics, and electronic and interactive media are some of the most common areas of study. The program is designed to accommodate almost any relevant interest.

The courses emphasize, above all else, the conceptual and strategic aspects of marketing and communications design as well as the development of basic skills, the use of technology, and the historical and theoretical foundations of the field.

All Communications Design majors must maintain 2.0 GPA or above in CMD to remain current and enrolled in the major. If a student receives a grade below a C in any of the CMD classes, he/she will be placed on CMD probation for the following semester. Any student placed on CMD probation for a total of two semesters, consecutive or nonconsecutive, will be dropped from the CMD major. An appeal to be reinstated to the major can only be made by submitting a current portfolio, a current transcript and a letter of recommendation from a faculty member outside the CMD program. This package would be sent to the Program Coordinator of Communications Design by October 1 in the Fall semester for Spring reentry and March 1 in the Spring semester for Fall reentry. The appeal for reinstatement case will be reviewed by a committee made up of all the full-time CMD faculty and one student representative from the senior class. There must be a unanimous positive vote of the committee members to reinstate the student.

#### MAJOR REQUIREMENTS:

##### First Year, Fall Semester

ART 101 First-Year Colloquium 1  
Art or design history 3  
FND Studio 3  
FND Studio 3  
WRT 105 Writing Studio I 3  
Elective 3  
Elective (optional) 3  
16-19

##### First Year, Spring Semester

Art or design history 3  
FND Studio 3  
FND Studio 3  
Elective 3  
Elective 3  
Elective (optional) 3  
15-18

##### Sophomore Year, Fall Semester

DES 281\* Design Symposium 1  
CMD 251 Introductory Communications Design I 3  
CMD 281 Design Methods 3  
Academic elective 3  
Studio electives 6  
Art history 3  
18

##### Sophomore Year, Spring Semester

DES 281\* Design Symposium 1  
CMD 252 Introductory Communications Design II 3  
CMD 282 Design Skills and Processes 3  
Studio electives 6  
Art history 3  
WRT 205 Writing Studio 2 3  
18

##### Junior Year, Fall Semester

DES 281\* Design Symposium 1

CMD 351 Problem-Solving Strategies 3  
CMD 450 Communications Design Problems 3  
Studio elective 3  
Academic elective 3  
Art history 3  
15

Junior Year, Spring Semester  
CMD 352 Design Project Management 3  
CMD 450 Communications Design Problems 3  
Studio elective 3  
Academic electives 9  
18  
Senior Year, Fall Semester  
CMD 450 Communications Design Problems 6  
Studio electives 6  
Academic elective 3  
15

Senior Year, Spring Semester  
CMD 450 Communications Design Problems 6  
CMD 452 Portfolio and Practice 3  
Academic elective 6  
15

Foundation 30  
Studio concentration 39  
Art history 6  
Academic electives 21  
Studio electives 24  
Academic requirement 6  
126

\* Three semesters of DES 281\* Design Symposium, are required, for a total of three credits.

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## Computer Art And Animation

Contact: Heath Hanlin, hahanlin@syr.edu  
Department of Transmedia, 102 Shaffer Art Building, 315-443-1033

Faculty Heath Hanlin, Annina Ruest

The Bachelor of Fine Arts (B.F.A.) degree program in Computer Art and Animation is dedicated to exploring the possibilities of digital media within a fine art, exploratory, and culturally aware setting. Through instruction in 3D computer animation, electronic object creation, code-based art, sound design, and sonic art, students are mentored to become highly skilled critical thinkers producing art in individual and collaborative contexts.

In your first year, you build a strong foundation for working within the digital realm while developing an artistic voice engaged in the language of the medium. During the second year we investigate the diverse possibilities of computer art, the intensity of which is oriented by the inclination of the student and tailored through mentorship. In the third and fourth years, we bring these skills into creative focus, demanding a professional art practice that is both technically sophisticated and critically engaged.

Within the Department of Transmedia, computer art is integrated with film, art video, and art photography, allowing for a practice that is tightly focused but free to traverse a network of related disciplines. This network expands into the rest of Syracuse University, challenging you to further develop the intellectual resources needed to inform your work. Through this process you synthesize a perspective that is shaped within a web of mutual influence and discourse.

Celebrating its 30th year, the computer art program boasts alumni who are placed at some of the most prestigious animation and visual effects companies in the world—Pixar, Rhythm and Hues, Industrial Light and Magic, Lucasarts, Blizzard, Tippett Studios, Motion Picture Company, and Sony Pictures Imageworks—along with creative representation at galleries and media art festivals internationally. The program's alumni and faculty have consistently pushed the edge publicly as to what it means to be a computer artist and continue to maintain that intensity today.

TRM Core, 24 credits:

TRM151 Colloquium I  
TRM152 Colloquium II  
TRM153 Studio Concepts I  
TRM154 Studio Concepts II  
TRM251 Intermediate Studio  
TRM316 Introduction to Visual Culture  
TRM351 Advanced Studio  
TRM451 Transmedia Synthesis

Required Major, 18 credits:

CAR101 3D Animation and VFX I  
CAR201 3D Animation and VFX II  
CAR111 Introduction to programming for visual and networked art  
CAR211 Intro to electronics and electronic object making  
CAR241 Audio production and recording I  
CAR432 Senior Project

Menued Major studios, choose 12 credits:

CAR120 Experimental Animation  
CAR301 3D Animation and VFX III  
CAR302 Previz for Animation  
CAR415 History of Animation  
CAR230 Topics in Computer Gaming I  
CAR330 Topics in Computer Gaming II  
CAR430 Electronic Environments Workshop  
CAR401 Animation Workshop I (pre-req 221)  
CAR402 VFX Workshop I (pre-req 221)  
CAR501 Animation Workshop II (pre-req 221)  
CAR502 VFX Workshop II (pre-req 221)  
CAR341 Audio production and recording II  
CAR530 Special Topics

Menued Studio electives, choose 12 credits:

FND113 Foundation Drawing. Drawing as a form of investigation of the visual world. Emphasizing process over product.

DRW 114/FND 114 Special Topics in Foundation Drawing. Selected areas of and approaches to drawing.

FIL 228 Film Scriptwriting. Introductory course to the basic elements of film scripting: dramatic fundamentals, screenplay format, narrative strategies, character creation, and dialogue development intro film production

ART 250 Filmmaking: Cinematic Modes. Topics will focus around codes and forms that work at the mainstream and borders of cinematic production.

IND 273 Principles of Industrial Form I. Generation of planer and geometric form as related to materials, tools, and machine processes.

IND 274 Principles of Industrial Form II

Analysis and generation of additive, subtractive, and deformative curvilinear form as related to materials, tools, and machine processes.

IND 373 Production Processes: Metals. Transforming metal into appropriate product forms by various mass production processes. Relationship of personal sensitivity to the logical formation of metal products.

SCU 392 Plastics Techniques Research. Plastics and their potential sculptural uses. Vacuum-formed plastic sheet, casting resins, and fiberglass lay-up. Individual research in conjunction with course expectations for students taking SCU 592.

SCU 391 Wood and Mixed-Media Research. Sculptural uses of wood. Lathe work, lamination, and carving. Combination of wood and other sculptural materials. Individual research in conjunction with course expectations for students taking SCU 591.

DRW 245/DRW 246/PTG 255/PTG 256 Figure Drawing. Human figure as subject and tool for drawing ideas. Figure composition, historical significance, drawing media.

DRA 105 IntrDRA 105 Introduction to Acting for Nonmajors. Basic group exercises and improvisations in vocal and physical relaxation, concentration, and dramatic action.

EDI 144/ISD 144 Theory and Practice in the Visual Arts. Fundamental three-dimensional communication devices. Model making as a design tool and conceptual methodology.

DRA 106 Scene Study for Nonmajors. Workshop in scene study to develop creative responsiveness to the play script.

Free studio electives, 9 credits:

Menued Studies in Culture electives, choose 12 credits:

ETS 146 – Reading Screen Culture

ETS 340 – Temporality Across Media

ETS410 – Digital Games Seminar

VID 310 – Studies in Art Video. Relationship with traditional studio arts, music, cinema, television, computers, telecommunications, and networks. Art video recordings are used to focus and structure explorations of the contemporary media environment

SOC 400- SOC 400 - "Science, Technology, & Society" This course explores the intimate entanglements of technology, science, culture, bodies, capitalism and power, with a focus on post-World War II U.S. society. We will explore the historical forces as well as the cultural and economic contexts shaping the dreams, practices, and products of contemporary technoscience.

CRS 183 Concepts and Perspectives in Rhetorical Studies. History of rhetorical studies from classical antiquity to contemporary times. Explores conceptualizations and understandings which serve as a method of recognizing, analyzing, and evaluating persuasive impulses.

ART 203/ART 503 History of Modern Design. Survey of historical trends in the development of modern design reflecting both the real and the conceptual influences of society.

CRS 483 Rhetoric of Film. Examination of how popular films and documentaries function rhetorically to reflect and construct social and political change.

CRS 426 Persuasion Contemporary behaviorist, cognitive, and language-based theories of persuasion. Modes of inquiry used to investigate persuasion. The behavioral compared and contrasted with the rhetorical perspective.

CRS 313 Nonverbal Communication Nonverbal message systems in interpersonal communication. Factors affecting the nature and quality of interaction: spatial, temporal, gestural, artifactual, tactile, and cultural.

CRS 314 Performance Studies. Performance as a political project that privileges the body as a site of knowledge. The politics, implications, and possibilities of personal narratives.

CRS 339 Communication, Space, and Design. Examination of spaces and designs as rhetorical and communication phenomena. How we organize space and, in turn, how the organization of our spaces shapes how we interact, organize, and relate to others and the world.

CRS 325 Presentational Speaking. Conceptual and practical dimensions of formal presentations in organizational settings. Analysis, adaptation, strategic arrangement and development of ideas, verbal and nonverbal presentational skills. Prereq: Junior standing or permission of instructor

CRS 355 Political Communication. Investigates the relationship between communication and politics. Highlights communication-related issues involved in political processes and focuses on the extent to which communication is an essential aspect of political systems.

ART 253 Survey of Film History. Growth of film from its origin. Technical, economic, and social influence on cinema; development of film as an art.

Free Studies in Culture electives, 9 credits

Required Academics, 6 credits:

WRT105

WRT205

Academic Electives, 18 credits

Total: 120 credits

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## Minor In Computer Gaming

Department of Transmedia, 315-443-1033

The VPA minor in computer gaming creates a focus for students interested in the practical, social, and theoretical aspects of computer/video games. The core requirements of this minor introduce the primary methods and concepts that are key to the production of computer/video games. The elective courses direct students to investigate a range of studies that are critically related to gaming, allowing for both broader and/or specific research.

### Admission requirements

Students interested in this minor should meet with the faculty contact. Prospective students must submit a current transcript, a letter of interest not to exceed 1,500 words, and any work in the form of digital media files on CD or DVD that may be related to the minor. There are no absolute requirements in terms of number of works or GPA. Acceptance into the minor will be made solely by the faculty contact for the minor upon review of application materials. Students need to maintain a 3.0 GPA average in the minor curriculum; otherwise they may be expelled from the minor. Limited to 10 students.

### Curricular Requirements

To complete the minor in computer gaming, students must complete a total of 21 credits.

#### Required Courses (12 credits)

CAR 121 Intro to 3D Computer Animation

CAR 233 2D Computer Gaming

CAR 221 Intermediate 3D Computer Animation

CAR 340 Computer Gaming

#### Elective Courses (choose 3 for a total of 9 credits):

Theory

IND 378 Symbology and Semiotics or

CAR 530 History and Theory for Computer Gaming or

FIL 225 Problems of Film Perception

#### Interaction

IND 276 Visualization and Representation or

IND 375 Human Factors for Designers

#### Programming

CPS 196 Introduction to Programming: C or

CAR 132 Procedural Composition

#### Science

PHY 101 Major Concepts of Physics I or

MAT 194 Pre-calculus

#### Writing

ETS 153 Interpretation of Fiction or

CRS 339 Communication, Space, and Design or

FIL 228 Film Scriptwriting

#### Art

FND 114 Special Topics in Foundation Drawing: Drawing Through the Figure

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# Drama

Contact: Department of Drama, 820 East Genesee Street, 315-443-2669.  
<http://vpa.syr.edu/drama/undergraduate/bs-drama>

Faculty Joseph Alberti, Gerardine M. Clark, James Clark, Timothy Davis-Reed, Rodney S. Hudson, Elizabeth Ingram, Malcolm Ingram, Felix Ivanoff, Marie Kemp, Victor Lazarow, Anthony Salatino, David Wanstreet

## Bachelor of Science in Drama

The Department of Drama's B.S. degree program provides a balance of drama department classes, liberal arts, and other academic courses. It combines the intensive training of the Drama Department with a broad education in the liberal arts. Students enrolled in the B.S. degree may choose a track (concentration) in Directing, Playwriting, Theater Technology or Acting, provided that they have been admitted to, and have completed a portion of, a Drama BFA program. However, students may be directly admitted into the Theater Management B.S. track.

The B.S. degree requires 120 credits, including a minimum of 50 credits in the liberal arts, and a cumulative grade point average of 2.0 (C). In addition to the liberal arts distribution of requirements, students must select an 18-credit minor or academic specialization in an academic (non-studio) area of study. They may take additional credits if they wish to satisfy their own interests.

The new Theater Management track will prepare you for a variety of careers including producing, marketing and public relations, casting, development, and general management. It will also provide you with the chance to develop widely transferable management skills. Working in direct partnership with professionals at Syracuse Stage, you will gain firsthand knowledge of a professional theater company's operations.

The Acting and Theater Technology tracks in the B.S. program are more broadly focused than the B.F.A. programs. This allows you to tailor your course of studies to your individual interests, and facilitates the pursuit of a minor in an area of your choice, while still enabling you to take advantage of the Department's many resources – including opportunities to study abroad, and our partnership with Syracuse Stage.

Please note that the Theater Management track is the only B.S. track that is currently open to direct application (which includes an interview). All other B.S. tracks are available only to those students who have been admitted to, and completed a portion of, one of our B.F.A. programs.

### B.S. in drama degree requirements (acting or theater design and technology emphasis)

#### First Year, Fall Semester

DRA 090 Theater Laboratory	0
DRA 115 Introduction to the Theater	3
DRA 125 Introduction to Acting*	3
DRD 115 Introduction to Theater Production	2
WRT 105 Writing Studio 1	3
Academic elective	6
	17

#### First Year, Spring Semester

DRA 090 Theater Laboratory	0
DRA 116 Introduction to the Theater II	3
DRA 126 Introduction to Acting II*	6
DRD 116 Introduction to Theater Production II	2
WRT 205 Writing Studio 2	3
Academic elective	2
	16

#### Sophomore Year, Fall Semester

DRA 090 Theater Laboratory	0
DRA 355 Development of Theater and Drama	3
DRA 220 Introduction to Scene Study*	3
DRA 221 Voice /Verse Practicum*	3
DRA 273 Movement for Actors*	2
Humanities/science/social science elective	3
DRA/DRD Emphasis	2
	16

#### Sophomore Year, Spring Semester

DRA 090 Theater Laboratory	0
DRA 356 Development of Theater and Drama II	3
DRA 220 Introduction to Scene Study*	3
DRA 222 Voice /Verse Practicum II*	3
DRA 274 Movement for Actors*	2
Humanities/science/social science elective	3
DRA/DRD Emphasis	3

Junior Year, Fall Semester	
DRA 090 Theater Laboratory	0
Minor/academic specialization	3
Drama support	6
Humanities/science/social science elective	6
	15

Junior Year, Spring Semester	
DRA 090 Theater Laboratory	0
Theater history elective	3
Minor/academic specialization	3
Humanities/science/social science elective	6
Drama support	3
	15

Senior Year, Fall Semester	
DRA 090 Theater Laboratory	0
Minor/academic specialization	6
Drama literature	3
Drama support	3
	12

Senior Year, Spring Semester	
Drama literature	3
Minor/academic specialization	6
Drama support	3
	12
Total	120

\*Courses with an asterisk are listed for DRA emphasis but could be substituted with DRD classes for theater design and technology emphasis.

It is recommended that the student finds an official minor from a school or college within the University that complements his or her course of study or, in consultation with his or her advisor, selects an academic specialization that is of interest and will enhance the student's education.

## Drama

### DRAMA MINOR

The Department of Drama currently offers a minor to those students enrolled in other courses of study. Students must petition the drama faculty, have a 2.5 grade point average, and have at least a sophomore standing. Fifteen students are accepted as minors each year on a "first-come, first-served" basis. Minors must fulfill 18 credits of class, including 3 credits of introduction to the theater (DRA 115 ) and 3 credits of theater history (DRA 352, 355, or 356). At least 9 of the remaining 12 credits must be in upper-level classes. Students may select courses from among classes in history, dramatic literature, theater management, theater design and technology, acting for nonmajors, and others.

## Environmental And Interior Design

### Environmental and Interior Design

Contact: Sarah Redmore, [sgredmor@syr.edu](mailto:sgredmor@syr.edu)  
 Department of Design, The Warehouse, 6th floor, 315-443-2455

Through the exploration of the art and architecture of environmental design, students solve problems in a broad range of built environments. Students work closely with faculty in a studio environment similar to the professional design office experience. The curriculum and projects support the professional, multidisciplinary philosophy and foster the creation of humane, sustainable environments for people. Visualization and communications skills, as well as a strong technical component, provide a basis for the education of designers who will become creative problem solvers and leaders in various fields of interior design.

Students receive a broad liberal arts education in conjunction with studio courses in fine arts and crafts to complement their work in environmental and interior design. A sensitivity to the concerns of people, sustainable design practices and an understanding of the business of design contribute to their overall competence. Individual work experiences and actual and collaborative projects in the community and with industry expose students to current and future issues.

The program shares courses, design laboratories, and studios with other disciplines in the Department of Design and a close relationship with professional designers, design societies, and manufacturers. Students and the program have received many national and international design awards. The program is accredited by the Council for Interior Design Accreditation (CIDA).

Students are encouraged to spend a semester abroad in their junior year at SU's Design in London program or working on special projects and internships in Syracuse and around the world.

Prospective students without art and design backgrounds and portfolios may apply directly to the program and matriculate through the freshman EDI curriculum.

Total 120

Foundation 18-30  
Studio concentration 36 - 48  
Design/Art history and Theory 9  
Academic electives 15  
Studio electives 15  
Academic or Studio electives 6  
Required Electives 6  
Academic requirement 3

\*\* Required Electives (Choose 2): ACC 201 Accounting for non-majors, CRS 225 Public Advocacy, CRS 316 Introduction to Visual Culture, CRS 325 Presentational Speaking, DES 267 Textiles for Designers, DES 341 Fabrication Skills, DES 342 Computer Generated Fabrication, DES 561 Furniture and Light Workshop, DES 562 Advanced Detailing and Construction, Any DES Topics Course, EEE 370 Introduction to Emerging Entrepreneurship Enterprise, FIN 301 Finance for non-majors.

EDI 452 Environment Design Thesis Studio 3  
EDI 454 Portfolio 3  
Studio elective 3  
Academic elective 3  
Academic or Studio Elective  
15

Senior Year, Spring Semester

EDI 451 Environmental Design Focus Studio 3  
EDI 453 Thesis Prep and Research 3  
Required Elective 3\*\*  
Studio Elective 3  
Academic or Studio Elective 3  
15

Senior Year, Fall Semester

EDI 352 Directed Research 3  
Art History Elective 3  
Studio elective 3  
Academic elective 6  
15

Junior Year, Spring Semester

EDI 351 Environmental Design III 3  
EDI 353 Environmental Factors 3  
EDI 354 Professional Practice  
Required elective 3\*\*  
Academic electives 3  
15

Junior Year, Fall Semester

EDI 252 Environmental Design II 3

EDI 254 Design Presentation and Techniques II 3  
DES 248 Design Issues 3  
WRT 205 Writing Studio II 3  
Studio Elective 3  
15

Sophomore Year, Spring Semester

EDI 251 Environmental Design I 3  
EDI 253 Design Presentation and Techniques I 3  
DES 201 Design, Culture and Sustainability 3  
Studio Elective 3  
Academic Elective 3  
15

Sophomore Year, Fall Semester

\*Students entering through environmental and interior design first-year track, must take EDI 143, 144, 145 and 146 and two studio electives in the freshman year. Students entering with portfolios through the art foundation first-year track must take FND 111, 113, 115, 117 and EDI 144 and 146 in the freshman year.

First Year, Spring Semester

ART 111 3  
FND Studio or Studio Elective 3\*  
FND Studio or Studio Elective 3\*  
EDI 144 3  
EDI 146 3  
15

First Year, Fall Semester

ART 113 design history 3  
FND Studio or EDI 143 3\*  
FND Studio or EDI 145 3\*  
WRT 105 Writing Studio I 3  
Elective 3  
Elective (optional) 3 15-18

MAJOR REQ ENT

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## Fashion Design

[http://coursecatalog.syr.edu/2013/programs/fashion\\_design](http://coursecatalog.syr.edu/2013/programs/fashion_design)

Contact: Todd Conover, [tconove@syr.edu](mailto:tconove@syr.edu)  
Department of Design, The Warehouse, 7th Floor, 315-443-4644

Faculty Karen M. Bakke, Todd Conover, Jeffrey Mayer

The curriculum of the B.F.A. degree program in Fashion Design includes the basic skills of construction, flat pattern, draping, and presentation, all with an emphasis on design. Important related topics include textiles, fashion drawing, fashion marketing, and computer-assisted design. Students learn to develop their ideas on paper, then translate them through pattern skills into three-dimensional forms and, finally, into finished designs. Academic requirements and electives balance studio and didactic courses each semester. The program requires 126 credits.

The fashion design program has connections with the London College of Fashion. Students may apply to spend a semester abroad in this program.

### MAJOR REQUIREMENTS

First Year, Fall Semester

ART 101 First-Year Colloquium 1  
Art or design history 3  
FND 111 Time Arts 3  
FND 113 Foundation Drawing 3  
WRT 105 Writing Studio I 3  
FAS 120 Fashion Design: Concepts and Construction I 3  
Elective (optional) 3  
15-18

First Year, Spring Semester

Art or design history 3  
FND 1152D Creative Processes 3  
FND 117Dimensional Arts 3  
FAS 121Fashion Design: Concepts and Construction II 3  
FAS 147Visual Thinking 3  
WRT 205Writing Studio 2 3  
18

Sophomore Year, Fall Semester

FAS 222Fashion Design: Flat Pattern 3  
FAS 231Fashion Drawing I 3  
Special Topics 3  
Academic elective 3  
Studio elective 3  
15

Sophomore Year, Spring Semester

FAS 223Fashion Design: Advanced Flat Pattern 3  
FAS 232Fashion Drawing II 3  
FAS301 Computer Generate Presentation for Fashion  
FAS 300Selected Topics 3  
ETS 145Reading Popular Culture 3  
Studio elective 3  
15

Junior Year, Fall Semester

FAS 323Fashion Design: Accessory Design 3  
FAS 332Fashion Design: Draping 3  
FAS 335History of Fashion Design I: Origins and Revivals 3  
Studio elective 3  
Academic elective 3  
15

Junior Year, Spring Semester

TXT 323Experimental Textiles and Materials 3  
FAS 341Fashion Computer Aided Pattern Design 3  
FAS 333Fashion Design: Advanced Draping 3  
FAS 336History of Fashion Design II: Contemporary Trends 3  
Studio elective 3  
Academic elective 3  
18

Senior Year, Fall Semester

FAS 422Fashion Design: Senior Collection I 3  
TXT 325Interlocking Fibers and Materials 3  
Studio electives 6  
Academic elective 3  
15

Senior Year, Spring Semester

FAS 423Fashion Design: Senior Collection II 3  
Studio electives 9  
Academic elective 3  
15

Foundation 21

Studio concentration 51  
Art history 6  
Academic electives 15  
Studio electives 27  
Academic requirements 6

Total Credits: 126

## Film

Contact Miso Suchy, Department of Transmedia, 315-443-1033.  
Faculty Sharon Greytak, Owen Shapiro, Miso Suchy, Kimi Takesue  
<http://vpa.syr.edu/art-design/transmedia/undergraduate/film>

The main objective and educational mission of our film program is to provide a stimulating and rewarding context for independent filmmaking and scholarship. The film program places equal emphasis on academic film studies and creative production. Students pursue various modes of production, including experimental, narrative, documentary, and animation and are required to take film history, theory and criticism classes.

Our approach is that of the total filmmaker. The primary focus of the program is to foster creative, intellectual, and personal achievement. Students learn everything from scriptwriting to pre-production, production, and post-production. Learning how to develop interpersonal and leadership skills is an important part of the process. The program encourages independence, debate, and originality. Our approach to film is an aesthetic one rather than a commercial enterprise.

The first two years of the program are rigorously structured. Freshmen follow Transmedia core curriculum, including film history and an introductory film production course. Sophomore classes concentrate on the essential filmmaking skills. Juniors and seniors have more flexibility. Students choose from menu-structured courses according to their academic and professional interests, in essence constructing their own path with their faculty advisor. This structure permits students to study abroad for one semester in any of the SU Abroad locations. The film program also offers both semester-long and short-term study programs with FAMU in Prague.

Students must participate in a portfolio review, which is held at the end of each semester. The student and faculty members evaluate creative and academic work and assess student progress. Sophomore Review will result in a recommendation to continue or to not continue in the program.

In addition to the core study and study abroad options, students have various opportunities for involvement with the Syracuse International Film Festival, the Dropped Frame Society (a student-run film organization), and are encouraged to seek internships. Each year, two of our film seniors participate in the "Sorkin Week," a week-long professional sojourn in Los Angeles, California.

The program maintains full facilities for 16mm, super 16mm, and digital video formats, including HD.

Our students go on to become independent filmmakers and educators, and work in a wide variety of media-related fields. The program requires 129 credits.

### MAJOR REQUIREMENTS

First Year, Fall Semester  
TRM 151 Colloquium I 3  
TRM 153 Studio Concepts 3  
Studio elective 3  
ART 253 Survey of Film History 3  
Academic elective 3  
WRT 105 Writing Studio 1 3  
18

First Year, Spring Semester  
TRM 152 Colloquium II 3  
TRM 154 Interconnected Studio 3  
FIL 122 Sound/Image 3  
Studio elective 3  
WRT 205 Writing Studio 2 3  
15

Sophomore Year, Fall Semester  
TRM 251 Intermediate Studio 3  
FIL 221 Cinematic Modes of Production 3  
FIL 228 Film Scriptwriting 3  
FIL 226 Survey of Film Theory 3  
Academic elective 3  
Studio elective 3  
18

Sophomore Year, Spring Semester  
FIL 223 Storytelling Production 3  
FIL 225 Problems of Film Perception 3  
Academic elective 3

Studio elective 3  
Studies in culture 6  
18

Junior Year, Fall Semester  
TRM 351 Advanced Studio 3  
FIL 321 Filmmaking: Animation 3\*  
FIL 322 Cinematic Modes Workshop 3\*  
FIL 329 Sound Design 3\*  
FIL 523 Acting/Directing 3\*  
Studies in culture 3  
Academic elective 3  
15  
\*Choose 2

Junior Year, Spring Semester  
FIL 222 Post Production Workshop 3\*  
FIL 321 Filmmaking: Animation 3\*  
FIL 322 Cinematic Modes Workshop 3\*  
FIL 324 Scriptwriting Workshop 3\*  
Studies in culture 3  
Studio elective 3  
Academic elective 3  
15  
\*Choose 2

Senior Year, Fall Semester  
TRM 451 Transmedia Synthesis 3  
FIL 420 Senior Project 0-3\*  
Studio elective(s) 3-6\*  
Academic elective 3 Studies in culture 3  
15

\*Choose 1

Senior Year, Spring Semester  
FIL 520 Film Studies Seminar 3  
FIL 420 Senior Project 0-3\*  
Studio elective(s) 3-6\*  
Academic elective 3  
Studies in culture 3  
15  
\*Choose 1

Transmedia core 21  
Writing 6  
Depth 33  
Studio electives 27  
Academic electives 21  
Studies in culture 21

Total 129

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## History Of Art

Contact Judih Meighan, Department of Foundation, 102 Shaffer Art Building, 315-443-2251.  
Faculty Judith E. Meighan  
[vpa.syr.edu/art-design/art/undergraduate/history-art](http://vpa.syr.edu/art-design/art/undergraduate/history-art)

The interdisciplinary program in the history of art, which leads to a B.F.A. degree and requires 126 credits, integrates studio experience with study of the history, theory, and aesthetics of the visual arts. Intended for students who have taken basic studio courses in drawing, painting, and design but who do not wish to specialize in one of the professional studio fields, it offers a diversified course of study in history and related academic concerns.

The program examines art as an expression of experience in different periods and cultures, from prehistoric to contemporary. Students may develop an area of specialization in a topic that interests them, such as a period (Middle Ages, Age of Romanticism, Industrial Age), a stylistic movement (Baroque, Impressionism, Abstract Impressionism), a medium (decorative arts, architecture), a focus based on geography (American art, art of the northern

Renaissance), or a combination of all four.

For study in the history of art, students may choose art history courses above the 299 level offered in the College of Visual and Performing Arts listed with an ART prefix, or courses in the art history major offered by the Department of Fine Arts in the College of Arts and Sciences, which are listed with a FIA prefix. History of art majors may also choose courses from other undergraduate colleges within the University.

#### MAJOR REQUIREMENTS

First Year, Fall Semester

ART101 First-Year Colloquium 1

Art or design history 3

FND Studio 3

FND Studio 3

WRT 105 Writing Studio 1 3

Elective 3

Elective (optional) 3

15-18

First Year, Spring Semester

Art or design history 3

FND Studio 3

FND Studio 3

Elective 3

Elective 3

Elective (optional) 3

15-18

Sophomore Year, Fall Semester

Art history electives 6

Studio electives 6

Academic elective 3

15

Sophomore Year, Spring Semester

Art history electives 6

Studio electives 6

Academic elective 3

WRT 205 Writing Studio 2 3

18

Junior Year, Fall Semester

Art History electives 6

Studio electives 6

Academic elective 3

WRT 307 Professional Writing 3

18

Junior Year, Spring Semester

Art history electives 6

Studio electives 6

Academic elective 3

16

Senior Year, Fall Semester

Art history electives 9

Studio elective 3

Academic elective 3

15

Senior Year, Spring Semester

Art history electives 6

Studio electives 3

Academic electives 6

15

Foundation 30

Art history concentration 39  
Academic electives 21  
Studio electives 30  
Academic requirements 6  
Total 126

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## Illustration

Contact Yvonne Buchanan, Department of Art, 102 Shaffer Art Building, 315-443-4613.  
Faculty Yvonne Buchanan, Robert Dacey, James Ransome, John Thompson  
[vpa.syr.edu/art-design/art/undergraduate/illustration](http://vpa.syr.edu/art-design/art/undergraduate/illustration)

Using visual symbols and imagination, illustrators stimulate curiosity and interest, tell stories, illuminate, and motivate. Therefore, students in the illustration program must be able to draw and to communicate exceptionally well with visual images.

The curriculum, which leads to a B.F.A. degree, is centered on a series of studio courses covering figure drawing, drawing for reproduction, illustration concepts, and the history and development of illustration. At the same time, students embark on individual research projects in specialized areas of illustration. The program balances imagination and individual expression with the continuous development of skills in drawing, painting, digital media, and design as they apply to the communication arts. The program in illustration requires 126 credits.

### MAJOR REQUIREMENTS

#### First Year, Fall Semester

Art or design history 3  
FND Studio 3  
FND Studio 3  
WRT 105 Writing Studio 1 3  
Elective 3  
Elective (optional) 3  
15-18

#### First Year, Spring Semester

Art or design history 3  
FND Studio 3  
FND Studio 3  
Elective 3  
Elective 3  
Elective (optional) 3  
15-18

#### Sophomore Year, Fall Semester

ILL 261 Introduction to Illustration 3  
ILL 283 Media Arts 3

#### ILL281 Visual Communication Symposium 1

English requirement 3  
Studio elective 3  
Art history 3  
15

#### Sophomore Year, Spring Semester

ILL 262 Introduction to Illustration 3  
ILL 284 Media Arts Techniques 3

#### ILL281 Visual Communication Symposium 1

Studio electives 6  
Academic elective 3  
WRT 205 Writing Studio 2 3  
18

#### Junior Year, Fall Semester

ILL 361 Intermediate Illustration 3  
ILL 363 Illustration Research Problems 3  
Academic electives 6  
Studio elective 3

Art history 3

18

Junior Year, Spring Semester

ILL 362 Illustration Principles 3

ILL 562 Illustration Concept 3

ILL281 Visual Communication Symposium 1

Studio elective 3

Academic elective 3

Art history 3

15

Senior Year, Fall Semester

ILL 461 Advanced Illustration 3

ILL 561 Illustration Concept 3

Studio electives 6

Academic elective 3

15

Senior Year, Spring Semester

ILL 462 Advanced Illustration 3

ILL 483 The Business of Freelance Illustration 3

ILL 364 Illustration Research Problems 3

Studio elective 3

Academic elective 3

15

Foundation 30

Studio concentration 39

Art history 9

Academic electives 18

Studio electives 24\*\*

Academic requirements 6

Total 126

Three semesters of ILL281, Visual Communication Symposium, are required, for a total of 3 credits.

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## Industrial And Interaction Design

[http://coursecatalog.syr.edu/2013/programs/industrial\\_and\\_interaction\\_design](http://coursecatalog.syr.edu/2013/programs/industrial_and_interaction_design)

Contact Jonathan Mills, Department of Design, The Warehouse, 5th Floor, 315-443-2455.

[vpa.syr.edu/art-design/design/undergraduate/industrial-interaction](http://vpa.syr.edu/art-design/design/undergraduate/industrial-interaction)

Industrial designers develop a wide spectrum of design solutions that meet current demands and anticipate the future needs of society. Their designs must incorporate the effective use of materials and technology, allow for manufacturing constraints, and provide a clear advantage to existing solutions.

The five-year program in industrial and interaction design, which leads to the professional degree, bachelor of industrial design (B.I.D.), is noted for combining theory and practice, taking a process-oriented approach, and focusing on social and environmental responsibility. It is accredited by the National Association of Schools of Art and Design and exceeds the educational minimums recommended by the Industrial Designers Society of America (IDSA). The program consists of courses in design theory and practice, as well as support courses in the humanities, the physical and natural sciences, and the behavioral and social sciences. The responsive curriculum maintains a balance between technical, aesthetic, and humanistic aspects and keeps pace with the leading edge of design technology by anticipating developments in the field.

Upper-level students in the program participate in collaborative projects with business, industry, and government agencies. These projects challenge students with real-life design problems. Industrial and interaction design students have an active chapter of the IDSA, which plans lecture programs, organizes field trips to consultant and corporate design offices, and participates in regional and national meetings of the society.

Students may also apply to spend one semester of their fourth year at the SU Abroad Center in London.

### MAJOR REQUIREMENTS

First Year, Fall Semester  
ART 101 First-Year Colloquium 1  
Art or design history 3  
FND Studio 3  
FND Studio 3  
WRT 105 Writing Studio 1 3  
Elective 3  
Elective (optional) 3  
15-18

First Year, Spring Semester  
Art or design history 3  
FND Studio 3  
FND Studio 3  
Elective 3  
Elective 3  
Elective (optional) 3  
15-18

Sophomore Year, Fall Semester  
IND 271 Principles of Industrial Design I 3  
IND 273 Principles of Industrial Form I 3  
WRT 205 Writing Studio 2 3  
Studio elective 3  
Art History 3  
15

Sophomore Year, Spring Semester  
IND 272 Principles of Industrial Design II 3  
IND 274 Principles of Industrial Form II 3  
IND 276 Industrial Design: Visualization and Representation 3  
Studio elective 3  
Academic elective 3  
15

Junior Year, Fall Semester  
IND 373 Production Processes: Metals 3  
IND 375 Human Factors for Designers 3  
IND 377 Industrial Design: Typography Studio 3  
Academic elective 3  
Studio elective 3  
15

Junior Year, Spring Semester  
IND 374 Production Processes: Plastics 3  
IND 376 Digital Surface Modeling 3  
IND 378 Symbolology and Semiotics in Industrial Design 3  
Academic electives 6  
Studio elective 3  
18

Senior Year, Fall Semester  
IND 471 Multidisciplinary Product Development 3  
IND 477 Primary and Secondary Research 3  
IND 479 Industrial Design Interface 3  
Academic elective 3  
Studio elective 3  
15

Senior Year, Spring Semester  
IND 472 Industrial Design: Product Systems 3  
IND 476 Industrial Design: Environmental Practicum 3  
Art history 3  
Academic electives 6  
Studio elective 3

## Fifth Year, Fall Semester

IND 571 Industrial Design: Product Practicum 3

IND 573 Industrial Design: Research 3

IND 577 Industrial Design: Philosophy and Ethics 3

Academic elective 3

Studio elective 3

15

## Fifth Year, Spring Semester

IND 572 Industrial Design: Advanced Problems 3

IND 574 Industrial Design: Thesis 3

IND 578 Industrial Design: Professional Practice 3

Academic elective 3

Studio elective 3

15

Foundation 30-36

Studio concentration 66

Studio electives 24

Academic electives 27

Academic requirement 3

Art, design history 6

Total 156

## Jazz Studies Minor

### Minor in Jazz Studies

Contact: John Coggiola, Director of Jazz Studies

202C Shaffer Arts Building, 315-443-5896, jccoggio@syr.edu

Faculty: Rick Balestra, John Coggiola, Joseph Colombo, Joshua Dekaney, William DiCosimo, Michael Dubaniewicz, Steven Frank, Rick Montalbano, Darryl Pugh, Jeffrey Stockham, Jeffrey Welcher

The Minor in Jazz Studies is designed for students from any degree program on campus, including music majors, who want to develop and improve their knowledge and skills in instrumental or vocal jazz. This 18-credit program draws from the entire array of the jazz offerings in the Setnor School of Music including jazz performing ensembles, jazz history, jazz arranging and theory, jazz applied lessons and jazz education. The specific requirements are as follows:

#### Requirements for Admission:

- Meet with Setnor School of Music advisor prior to beginning the program.
- 3.0 GPA in at least one jazz performing ensemble.
- Positive recommendation from the Director of Jazz Studies.

#### Curriculum Requirements:

A total of 18 credits minimum of course work within the jazz curriculum, 11 of which are from the core requirements. The remaining 7 credits are selected through advisement.

#### Core Requirements:

4 Ensemble credits (ENI 520, ENV 520, ENC 540, or ENC 560)

4 Jazz Improvisation credits (MTC 555, MTC 556, MTC 557, or MTC 558)

3 Jazz History credits (MHL 466, MHL 500, or MHL 566)

7 Elective credits from the preliminary list of courses below:

#### •Music Theory:

-MTC 125: Introduction to Music Theory\*

-MTC 225: Sight-singing for Non-Music Majors\*

-MTC 145, 146, 147, 148, 245, 246, 247, 248: Music Major level theory classes\*

-MTC 100/200/300/400: Jazz Piano

-MTC 100/200/300/400: Jazz Guitar

-MTC 100/200/300/400: Jazz Double Bass

-MTC 100/200/300/400: Jazz Drums

-MTC 100/200/300/400: Jazz Saxophone

-MTC 100/200/300/400: Jazz Trumpet

-MTC 100/200/300/400: Jazz Trombone

-MTC 100/200/300/400: Jazz Voice

-MTC 555: Jazz Improvisation I

- MTC 556: Jazz Improvisation II
- MTC 557: Jazz Improvisation III
- MTC 558: Jazz Improvisation IV
- MTC 551: Songwriting
- MTC 552: Studio Arranging
- MTC 554: Jazz Composing and Arranging

•Music History and Literature:

- MHL 466: History of Jazz
- MHL 500: Jazz topics vary from semester to semester
- MHL 566: Jazz topics vary from semester to semester
- Any HOM Jazz History class (different offerings each semester)

•Music Industry:

- MUI 205: Music Industry I\*\*
- MUI 206: Music Industry II\*\*

•Ensembles:

- ENI 520: Jazz Ensemble
- ENI 520: Jazz Combo
- ENC 540: Super Sax Ensemble
- ENV 520: Vocal Jazz Ensemble
- ENC 560: Brazilian Ensemble

•Music Education:

- MUE 415: Jazz Ensemble Techniques

Total Credits: 18

Restrictions:

Students within the School of Music and outside of the School of Music are eligible for this minor.

Music Education Majors may use the required Jazz Elective as part of this minor.

\*These classes will only apply to students outside of the School of Music.

\*\*These classes will not count toward the Minor in Jazz Studies if a student is enrolled in the Bachelor of Music Industry or Bandier program.

## Jewelry & Metalsmithing Minor

Admission Requirements

3.0 GPA (based on the completion of 30 credits with a minimum of 15 credits taken at Syracuse University)

An interview with the coordinator is required.

Cap on enrollment per semester is 5 students per semester.

Must enter program no later than the first semester of junior year. (Open to campus as a whole)

Applications accepted at any time, but will adhere to October 15 deadline for processing and approval in the Fall semester (March 1st for Spring semester).

Oversight

The coordinator will be Barbara Walter, Department of Art, Jewelry and Metalsmithing.

Curriculum Requirements

Required Courses: JAM 271 Introduction to Jewelry and Metalsmithing (3 credits), JAM 272 Casting (3 credits), JAM 471 History and Contemporary Issues (3 credits)

Choose From: JAM 300 level courses; choose from surface techniques, metal forming, stone setting, color on metal (6 credits)

Choose From: JAM 400 level course; either jewelry production or machine tools and technology (3 credits)

18 credits total

The curriculum gives the minors the same base of knowledge as the majors, but allows the minors to choose a path within the program that suits their interests. The student may decide to take jewelry oriented courses, metalsmithing courses, or a combination of both. The curriculum also gives the students an historic understanding of the field and an opportunity to discuss many of the issues faced by jewelers and metalsmiths now.

<http://vpa.syr.edu/art-design/art/undergraduate/jewelry-metalsmithing/curriculum>

Program Requirements

Foundation: 30 credits  
Studio concentration: 30 credits  
Studio electives: 30 credits  
Art history: 9 credits  
Academic requirement: 3 credits  
Academic electives: 24 credits  
Total credits: 126

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## Jewelry And Metalsmithing

Contact: Barbara Walter, bewalter@syr.edu  
Department of Art, ComArt Building, 315-443-3700

The jewelry and metalsmithing program leads to a B.F.A. degree and teaches students to manipulate a variety of metals with tools for aesthetic ends. The flexibility of the curriculum allows students to select the directions they wish their work to take, such as jewelry making, silversmithing, or processes that move across these traditions. In fact, students are encouraged to experiment across media lines so that traditional involvement with non-precious and precious metals is mixed with the exploration of plastics, woods, gemstones, and other materials.

Students in the program make objects that range from the highly functional to the purely expressive. They study such jewelry and metalsmithing techniques as forming, joining, molding, stonecutting, stone setting, and surface decorating. Related studies in the classical and contemporary uses of materials and tools, rendering, and small sculpture provide topics for independent research and investigation.

Excellent studio facilities and attentive instruction from professional artists provide a balanced experience in fine crafts making and industrial processes. Through close contact with faculty members, students participate in frequent group and individual critiques and are assisted in identifying and pursuing program and career goals.

The program in jewelry and metalsmithing requires 126 credits. First-year art and design majors are invited to enroll in introductory level classes.

FND Requirements include:

WRT 105 30 credits

JAM Studio Requirement 27credits

Studio Electives 30 credits

Academic electives 24 credits

Academic Requirement:

JAM 474 (3 credits)

Art History Elective (3 credits)

ART 540 (3 credits)

JAM 471 (3 credits)

WRT 205 (3 credits)

Degree: Bachelor of Fine Arts in Jewelry and Metalsmithing

Total Credits: 126

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## Leadership/Stewardship Communication Minor

Contact:  
Charles Morris, Department Chair, CRS cemorris@syr.edu  
100 Sims Hall V, 315-443-0792

Leadership/Stewardship Communication Minor

Leadership skills are inherently tied to one's ability to communicate effectively in a variety of situations, including formal presentations, meetings, the media, and informal conversations. Competent use of one's skills is predicated on a sophisticated understanding of culture, context, process, audience, and

principles of rhetoric. The minor in Leadership/Stewardship Communication is designed to enhance the student's understanding of the relationship between communication and leadership and to develop appropriate skills for enhancing leadership. The minor complements many of the University's professional and liberal arts programs, especially those that prepare students for leadership roles in specific professions (law, politics, management, media, community services, and so on).

#### Admission Requirements

- 3.0 GPA (based on completion of 30 credits)
- Must enter program no later than first semester of junior year
- Complete petition and submit to department chair for approval
- Petitions accepted at any time, but normally reviewed and approved after October 15 (fall semester) and March 1 (spring semester) deadlines for applications.

#### Curricular Requirements

Students must complete the following six courses for a total of 18 credits:

- CRS 225 Public Advocacy, or
  - CRS 325 Presentational Speaking
  - CRS 333 Small Group Communication
  - CRS 335 Leadership/Stewardship Communication
- and any three of the following:
- CRS 334 Introduction to Argumentation
  - CRS 355 Political Communication
  - CRS 426 Persuasion
  - CRS 430 Intercultural Communication
  - CRS 466 Ethics in Human Communication
  - CRS 568 Rhetoric of Social Change
  - PSC 336 Political Leadership
  - PAF 420 Interpersonal Conflict Resolution Skills
  - PAF 422 Negotiation: Theory and Practice
  - PAF 423 Leadership: Theory and Practice
- 

## Music

Contact: Janet Brown, Advisor, B.A. Music

124B Crouse College, 315-443-5892, janbrown@syr.edu

Faculty: All Setnor School of Music Faculty

The Bachelor of Arts (B.A.) program in music provides a unique opportunity to blend extensive professional work in music with studies in the liberal arts. It allows students who wish to earn a degree in music the opportunity to devote more time to liberal arts studies than is permitted in the program leading to the Bachelor of Music (B.Mus.) degree. Students accepted into the B.A. program must meet the same audition and admission standards required of other Setnor School of Music applicants and must complete the same core of creative and professional music study.

Students in the B.A. music program must complete 126 credits to graduate. At least 44 credits are taken in The College of Arts and Sciences. At least 63 credits must be taken in music courses and 15 to 19 credits are apportioned to special music courses that support the principal performance area (or music electives), and to academic electives.

The arts and sciences requirements consist of 6 credits in writing (English), 8 credits in foreign language, and 6 credits in each of the following groups plus an additional 6 credits in each of two of the following groups: the social sciences; the natural sciences/mathematics; and humanities.

#### MAJOR REQUIREMENTS

##### First Year, Fall Semester

- Weekly Student Convocation 0
  - Principal performance area 2
  - Secondary performance area 1
  - MTC 145Diatonic Harmony I 3
  - MTC 147Ear Training I 1
  - MHL 168History of European Music Before 1750 3
  - Large ensemble 1
  - WRT 105Writing Studio I 3
  - Academic 3
- Total credits: 17

First Year, Spring Semester  
Weekly Student Convocation 0  
Principal performance area 2  
Secondary performance area 1  
MTC 146Diatonic Harmony II 3  
MTC 148Ear Training II 1  
MTC 267History of European Music from 1750-1914 3  
Large ensemble 1  
WRT 205Writing Studio II 3

Academic 3  
Total credits: 17

Sophomore Year, Fall Semester  
Weekly Student Convocation 0  
Principal performance area 2  
Secondary performance area 1  
MTC 245Chromatic Harmony I 3  
MTC 247Ear Training III 1  
MHL 268European and American Music since 1914 3  
Large ensemble 1  
Academic 3  
Total credits: 14

Sophomore Year, Spring Semester  
Weekly Student Convocation 0  
Principal performance area 2  
Secondary performance area 1  
MTC 246Chromatic Harmony II 3  
MTC 248Ear Training IV 1  
MHL 185Introduction to World Music 3  
Large ensemble 1  
Academics 3  
Total credits: 14

Junior Year, Fall Semester  
Weekly Student Convocation 0  
Principal performance area 1  
CTG 545Basic Conducting 2  
Large ensemble 1  
Foreign language 4  
Academic 3  
Music elective 3  
Free elective 2  
Total credits: 16

Junior Year, Spring Semester  
Weekly Student Convocation 0  
Principal performance area 1  
Free electives 6  
Large ensemble 1  
Academics 6  
Music elective 3  
Total credits: 17

Senior Year, Fall Semester  
Weekly Student Convocation 0  
Principal performance area 1  
500-level elective in music history and literature 3

Large ensemble 1  
Small ensemble 1  
Foreign language 4  
Academic 3  
Music elective 3  
Total credits: 16

Senior Year, Spring Semester  
Weekly Student Convocation 0  
Principal performance area 1  
Free electives 6  
Large ensemble 1  
Small ensemble 1  
Academics 6  
Total credits: 15

Total Minimum Credits Required: 126

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## Music Composition

Contact: Nicolas Scherzinger, Chair, Department of Music Composition, Theory, History  
120B Crouse College, 315-443-3907, nscherzi@syr.edu

Faculty Joseph Downing, Daniel S. Godfrey, Nicolas Scherzinger, Andrew Waggoner

The B.Mus. degree program in composition offers students individual instruction in composition and the opportunity to develop a wide range of musical skills, including solid performance skills on at least one instrument, thorough training in music theory and history, and an exhaustive study of instrumentation and orchestration.

### MAJOR REQUIREMENTS

In addition to the first-year/sophomore core program, students must complete 62 to 64 credits in other courses, as indicated below. To reflect preparation for upper-division recital(s), upper-division credits in the principal performance area increase from 2 to 4 credits per hour of instruction.

First Year, Fall Semester  
Weekly Student Convocation 0  
Composition 2  
Performance 1  
MTC 051 Composition Seminar 0  
MTC 145 Diatonic Harmony I 3  
MTC 147 Ear Training I 1  
MHL 168 History of European Music Before 1750 3  
Large ensemble 1  
WRT 105 Writing Studio 1 3  
Area specialization/academic 1-3  
Total credits: 15-17

First Year, Spring Semester  
Weekly Student Convocation 0  
Composition 2  
Performance 1  
MTC 052 Composition Seminar 0  
MTC 146 Diatonic Harmony II 3  
MTC 148 Ear Training II 1  
MTC 267 History of European Music from 1750-1914 3  
Large ensemble 1  
WRT 205 Writing Studio 2 3  
Area specialization/academic 1-3  
Total credits: 15-17

Sophomore Year, Fall Semester  
Weekly Student Convocation 0  
Composition 2  
Performance 1

MTC 053 Composition Seminar 0  
MTC 245 Chromatic Harmony I 3  
MTC 247 Ear Training III 1  
MHL 268 European and American Music Since 1914 3  
Large ensemble 1  
Foreign Language 4  
Academic 2-3  
Total credits: 17-18

Sophomore Year, Spring Semester  
Weekly Student Convocation 0  
Composition 2  
Performance 1  
MTC 054 Composition Seminar 0  
MTC 246 Chromatic Harmony II 3  
MTC 248 Ear Training IV 1  
MHL 185 Introduction to World Music 3  
Large ensemble 1  
Academic 3  
Area specialization/music elective 3  
Total credits: 17

Junior Year, Fall Semester  
Weekly Student Convocation 0  
Composition 4  
MTC 055 Composition Seminar 0  
CTG 545 Basic Conducting 2  
MTC 535 Orchestration 3  
MTC 545 Counterpoint 3  
Large ensemble 1  
Small ensemble 1  
Academic 3  
Total credits: 17

Junior Year, Spring Semester  
Weekly Student Convocation 0  
Composition 4  
Area specialization/music electives 3-5  
MTC 056 Composition Seminar 0  
MTC 546 20th-Century Analysis 3  
Large ensemble 1  
Small ensemble 1  
Academic 3  
Total credits: 15-17

Senior Year, Fall Semester  
Weekly Student Convocation 0  
Composition 4  
MTC 057 Composition Seminar 0  
MTC 560 Electronic Music 3  
500-level elective in Music History and Literature 3  
Large ensemble 1  
Small ensemble 1  
Area specialization/academic 3-5  
Total credits: 15-17

Senior Year, Spring Semester  
Weekly Student Convocation 0  
Composition 4  
Area specialization/music electives 3  
MTC 058 Composition Seminar 0  
MHL/MTC 566 Topics in Literature and Analysis 3  
Large ensemble 1  
Small ensemble 1  
Area specialization/academic 3-5  
Total credits: 15-17

## Music Education

### Music Education (Dual Program)

Contact: John Coggiola, 110 Crouse College, 315-443-5896 or [jccoggio@syr.edu](mailto:jccoggio@syr.edu)

Education contacts: Carol Radin or Pam Hachey, Assistant Directors of Academic Advising, 111 Waverly Avenue, Suite 230, 315-443-9319.

College of Visual and Performing Arts contact: Marlene Lee, 200 Crouse College, 315-443-2517

The music education program, which leads to a Bachelor of Music degree, is designed to give students a strong foundation in musical and teaching skills and to enable them to obtain initial certification for public school teaching (all grades) in New York State and other states with which there are reciprocal arrangements.

Music education students are dually enrolled in the Setnor School of Music and the School of Education. They may elect one of five emphases: brass, choral/general, woodwind, percussion, or strings. By graduation, students are expected to have achieved competencies in all the musical disciplines (e.g., principal and secondary performance areas, music history and theory, sight-singing and dictation, and conducting and ensemble participation) in addition to teaching competencies in such areas as classroom management techniques and curriculum development skills. Students must have achieved a 3.0 average in music and education courses, with an overall GPA of at least 2.8 before being permitted to enter into the upper division sequence (junior year) and to student teach (senior year). Students also have opportunities to develop techniques of teaching general music as well as techniques for directing performance ensembles.

Academic credits are required in the following: 6 credits of social science (psychology or sociology), 3 credits in mathematics, 3 credits in the sciences, and 3 credits of multicultural humanities. Refer to the certification link for information about New York State certification. Foreign Language: one course (minimum 3 credits) in a language other than English (including American Sign Language), or equivalent competency established by examination or level three of high school study. If requirement has already been met, one 3-credit liberal arts elective must be taken in its place.

PROGRAM REQUIREMENTS\* \* This is a general list of major requirements for the music education major. Depending on which emphasis students choose (brass, choral/general, woodwind, percussion, or strings), the order of the courses and total credits per semester may vary.

#### First Year, Fall Semester

Weekly Student Convocation (0 credits)  
Principal performance area (2 credits)  
MHL 168 European Music Before 1750(3 credits)  
MTC 145Diatonic Harmony I (3 credits)  
MTC 147Ear Training I (1 credit)  
SED 340Participation in the Professional Development School (0 credits)  
Marching band (ensemble) or  
AMC 545Diction in Singing I (1-2 credits)  
Piano or Voice (1 credit)  
Ensemble(s) (1 credit)  
WRT 105Writing Studio 1 (3 credits)  
Total credits: 15-16

#### First Year, Spring Semester

Weekly Student Convocation (0 credits)  
Principal performance area ( 2 credits)  
MHL 267European Music 1750-1914 (3 credits)  
MTC 146Diatonic Harmony II (3 credits)  
MTC 148Ear Training II (1 credit)  
MUE 115Technology in Music Education (2 credits)  
AMC 546Diction in Singing II (choral/general emphasis only) (2 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Ensemble(s) (1 credit)  
Piano or voice (1 credit)  
WRT 205Writing Studio 2 (3 credits)  
Total credits: 16-18

#### Sophomore Year, Fall Semester

Weekly Student Convocation (0 credits)

Principal performance area (2 credits)  
Secondary performance area (1 credit)  
MHL 268 European and American Music since 1914 (3 credits)  
MTC 245Chromatic Harmony I (3 credits)  
MTC 247Ear Training III (1 credit)  
MUE 310Field Experience in Music Education (1 credit)  
MUE 215Foundations of Music Education (3 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Ensemble(s) (1 credit)  
Academic (3 credits)  
Total credits: 18

#### Sophomore Year, Spring Semester

Weekly Student Convocation (0 credits)  
Principal performance area (2 credits)  
Secondary performance area (1 credit)  
MHL 185Introduction to World Music (3 credits)  
MTC 246Chromatic Harmony II (3 credits)  
MTC 248Ear Training IV (1 credit)  
MUE 310Field Experience in Music Education (1 credit)  
SED 340Participation in the Professional Development School (0 credits)  
Ensemble(s) (1 credit)  
Academics (6 credits)  
Total credits: 18

#### Junior Year, Fall Semester

Weekly Student Convocation (0 credits)  
Principal performance area (1 credit)  
Secondary performance area (1 credit)  
CT G 545Basic Conducting (2 credits)  
EDU 204Principles of Learning in Inclusive Classrooms (3 credits)  
MUE 333Music in the Elementary School (2 credits)  
EDU 310The American School (3 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Instrumental Methods (1 credit)  
Jazz elective (1 credit)  
Ensemble(s) (1 credit)  
Academic (3 credits)  
Total credits: 18

#### Junior Year, Spring Semester

Weekly Student Convocation (0 credits)  
Principal performance area (1 credit)  
Secondary performance area (1 credit)  
MUE 334Methods and Materials in General Music (2 credits)  
MUE 518Marching Band Techniques or  
MHL 567Survey of Choral Literature (2 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Choral or instrumental conducting (2 credits)  
Instrumental methods (1 credit)  
Jazz elective (1 credit)  
Ensemble(s) (1 credit)  
Academic (4 credits)  
Total credits: 15

#### Senior Year, Fall Semester

Weekly Student Convocation (0 credits)  
Principal performance area (1 credit)  
MUE 321Teaching of Voice for Schools (1 credit)  
RED 326Literacy Across the Curriculum (3 credits)  
MTC 418Choral Arranging or  
MUE 415Jazz Ensemble Techniques (2 credits)  
SED 340Participation in the Professional Development School (0 credits)  
Instrumental methods (1 credit)

Instrumental methods/pedagogy (1 credit)  
Instrumental/choral rehearsal techniques (3 credits)  
Jazz elective (1 credit)  
Ensemble(s) (1 credit)  
Academic (3 credits)  
Total credits: 17

Senior Year, Spring Semester

EDU 508 Student Teaching (12 credits)  
SPE 412 Adapting Instruction for Diverse Student Needs (3 credits)  
Total credits: 15

Total Minimum Credits Required: 134

Consult with the School of Education, 111 Waverly Avenue, suite 230, regarding other New York State requirements for graduation.

Required child health and life safety seminar covering the following topics:

Identifying/reporting child abuse  
Violence prevention  
Child abduction prevention  
Highway/general safety  
Alcohol/drug/tobacco prevention  
Fire and arson prevention

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## Music Industry

Contact: William DiCosimo, Music Industry Program Coordinator  
119 Crouse College, 315-443-1216, [wjdicosi@syr.edu](mailto:wjdicosi@syr.edu)

Faculty: James S. Abbott, Bill DiCosimo, Michael Dubaniewicz, Bob Halligan Jr., Patrick MacDougall, Daniel G. Mastronardi, Ulf Oesterle, David M. Rezak

The music industry program leads to a B.Mus. degree and is designed to help serious music students develop a high level of musical competency while learning about the theoretical and practical aspects of the industry.

Studies include a broad and thorough understanding of the elements of music and a functional knowledge of the history and literature of music. The program prepares students not only to be competent musicians, but to conceptualize and implement solutions to various industry problems. Students study and discuss the implications of current trends in the industry as they become familiar with the realities of general business and, in particular, with the creative and legal practices of the music business. In addition, students learn about professional organizations and their role in the industry. Students are encouraged to consider a music industry internship.

### MAJOR REQUIREMENTS

First Year, Fall Semester  
MHL 071 Weekly Student Convocation  
MUI 103 Music Industry Forum  
Principal Performance Area  
Secondary Performance Area  
MTC 145 Diatonic Harmony I  
MTC 147 Ear Training I 1  
MHL 168 History of European Music Before 1750 3  
Large Ensemble 1  
WRT 105 Writing Studio 1 3  
PSY 205 Foundations of Human Behavior 3  
Total Credits 17

First Year, Spring Semester  
MHL 072 Weekly Student Convocation 0  
MUI 310 Soyars Leadership Lecture Series 1  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 146 Diatonic Harmony II 3  
MTC 148 Ear Training II 1  
MHL 267 History of European Music from 1750-1914 3  
Large Ensemble 1  
WRT 205 Writing Studio 2 3

SOC 101 Introduction to Sociology 3

Total Credits 18

Sophomore Year, Fall Semester

MHL 073 Weekly Student Convocation 0

MUI 203 Music Industry Forum 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 245 Chromatic Harmony I 3

MTC 247 Ear Training III 1

MHL 268 European and American Music Since 1914 3

MUI 205 Music Industry I 3

Large Ensemble 1

Secondary Instrument Group/Applied Lesson 1

ECN 205 Economic Ideas and Issues 3

Total Credits 18

Sophomore Year, Spring Semester

MHL 074 Weekly Student Convocation 0

MUI 310 Soyars Leadership Lecture Series 1

Principal Performance Area 2

Secondary Performance Area 1

MTC 246 Chromatic Harmony II 3

MTC 248 Ear Training IV 1

MHL 185 Introduction to World Music 3

MUI 206 Music Industry II 3

Large Ensemble 1

Total Credits 15

Junior Year, Fall Semester

MHL 075 Weekly Student Convocation 0

MUI 303 Music Industry Forum 1

Principal Performance Area 1

MUI 200 Live Music Promoter 3

CTG 545 Basic Conducting 2

MUI 310 Soyars Leadership Lecture Series 1

MUI 305 Music Industry & Media 3

MUI 307 Studio Recording 3

Large Ensemble 1

Total Credits 15

Junior Year, Spring Semester

MHL 076 Weekly Student Convocation 0

MUI 310 Soyars Leadership Lecture Series 1

Principal Performance Area 1

MUI 308 Live Sound and Concert Recording 3 OR

MUI 400 Advanced DAW (3)

Large Ensemble 1

MUI XXX Music Industry Elective 3

Secondary Instrument Group/Applied Lesson 1

Academic Elective 3

Total Credits 13

Senior Year, Fall Semester

MHL 077 Weekly Student Convocation 0

MUI 403 Music Industry Forum 1

Principal Performance Area 1

MUI 408 Music Industry Practicum 2

MUI 310 Soyars Leadership Lecture Series 1

Large Ensemble 1

MUI 405 Music Industry Law & Ethics 3

MAR 301 Marketing and Society 3

Total Credits 12

Senior Year, Spring Semester

MHL 078 Weekly Student Convocation 0

MUI 310 Soyars Leadership Lecture Series 1

MUI 402 Current State of Music Industry 2  
MUI 408 Music Industry Practicum 3  
RAE 400 Social Media for the Music Business (or other appropriate course) 3  
SHR 355 Introduction to Human Resource Management 3  
Total Credits 12

Total Minimum Credits Required: 120

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## Music Industry - Minor

Minor in Music Industry

Contact: William DiCosimo, Music Industry Program Coordinator  
119 Crouse College, 315-443-1216, wjdicosi@syr.edu

Faculty: James S. Abbott, Bill DiCosimo, Michael Dubaniewicz, Bob Halligan Jr., Patrick MacDougall, Daniel G. Mastronardi, Ulf Oesterle, David M. Rezak  
The Setnor School of Music offers two minors for non-music majors who wish to learn about the creative, business, and legal aspects of the music industry. To enroll in either music industry minor, students must apply to the coordinator of the music industry program. Auditions for private lessons and ensembles may be required for acceptance into Minor Plan II. The minor program is highly competitive, with a limited number of spaces, and application is encouraged before the beginning of the sophomore year and is required before the beginning of the junior year.

To complete a minor in music industry, students must complete 21 credits including at least 12 credits in courses numbered 300 or above.

Curriculum Requirements:

MINOR PLAN I (21 credits)

Required Core

MUI 205 Music Industry I 3  
MUI 206 Music Industry II 3  
MUI 305 Music Industry and the Media 3  
MUI 405 Music Industry Law and Ethics 3  
Upper-level history music course 3

Select 6 credits from the following courses

MUI 307 Studio Recording 3  
MUI 308 Live Sound and Concert Recording 3  
MUI 402 Current State of the Music Industry 2  
MUI 406 Topics in Music Industry 2  
MUI 408 Music Industry Practicum 1-5  
MUI 303,304,403,404 Music Industry Forum (1 credit each semester. Only 2 credits may be applied to minimum requirement for the minor.)

MINOR PLAN II (21 credits) Required Core

MUI 106 Survey of the Music Industry 2  
MTC 125 Introductory Music Theory 3  
MUI 405 Music Industry Law and Ethics 3  
MHL 364 History of American Popular Music or  
MHL 466 History of Jazz or other upper- division MHL course with permission of instructor 3 Upper-level history course 3

Select 7 credits from the following courses

MUI 305 Music Industry and the Media 3  
MUI 307 Studio Recording 3  
MUI 308 Live Sound and Concert Recording 3  
MUI 402 Current State of the Music Industry 2  
MUI 406 Topics in Music Industry 2  
MUI 408 Music Industry Practicum 1-5  
MUI 303, 304, 403, 404 Music Industry Forum (1 credit each semester. Only 2 credits may be applied to minimum requirement for the minor.)

APPLIED MUSIC AND ENSEMBLE:

Students may, pending audition, register for applied music and/or ensemble; only 2 credits may be applied to minimum requirements for the minor.

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## Music Performance

Contact: Justin Mertz, Assistant Director, University Bands; Director, Athletic Bands  
402 Crouse College, 315-443-5752, jjmertz@syr.edu

Faculty: All Department of Applied Music and Performance Faculty

The Minor in Music Performance is designed for students with the requisite musical ability and interest to apply and further their previous training and experience in instrumental and vocal music. This program draws from the entire array of the Setnor School of Music's ensemble offerings, running the gamut from such ensembles as the University Orchestra, Percussion Ensemble, Symphony Band, Concert Choir, Brazilian Ensemble, Contemporary Music Ensemble, and many more.

By completion of the minor, students will have had opportunities to perform in a varied assortment of ensembles, helping them to be capable of continued music making throughout their adult lives.

#### Requirements for Admission:

- At least one full semester of ensemble participation.
- Positive recommendation in writing from any ensemble director or conducting faculty.
- 3.0 GPA in at least one ensemble.

#### Curriculum Requirements:

The Minor in Music Performance requires 18 credits of coursework. Of these, 8 credits must be in SSoM performing ensembles; any class with the prefix ENI, ENV, or ENC meets this requirement. The remaining 10 credits can be selected from an assortment of courses offered by the Setnor School of Music and can include additional ensembles, private lessons, courses in music theory, music history and literature, conducting, music industry, and music education. It is expected that at least 6 credits will be chosen from the list below. This will be monitored by careful advising. Other music courses as they appear each semester may be taken by permission of advisor. No courses taken for zero credit will count toward the minor. A preliminary list of existing courses suitable for students in the Minor in Music Performance is below.

##### •Music Theory Courses:

- MTC 125: Introduction to Music Theory
- MTC 225: Sightsinging for Non-Music Majors
- MTC 100/200/300/400: Jazz Piano

- MTC 100/200/300/400: Jazz Guitar

- MTC 100/200/300/400: Jazz Double Bass

- MTC 100/200/300/400: Jazz Drums

- MTC 100/200/300/400: Jazz Saxophone

- MTC 100/200/300/400: Jazz Trumpet

- MTC 100/200/300/400: Jazz Trombone

- MTC 100/200/300/400: Jazz Voice

- MTC 551: Songwriting

- MTC 555: Jazz Improvisation I

- MTC 556: Jazz Improvisation II

- MTC 557: Jazz Improvisation III

- MTC 558: Jazz Improvisation IV

##### •Music History and Literature:

- MHL 535: Orchestral Repertoire

- MHL 500: Advanced Orchestral Repertoire

- MHL 466: History of Jazz

- MHL 566: Topics vary from semester to semester

- MHL 500: Topics vary from semester to semester

##### •Music Industry, Music Education, and Conducting

- CTG 545: Basic Conducting

- MUE 518: Marching Band Techniques

- MUI 400: Fundamentals of Music Industry

- MUI 400: The Independent Music Marketplace

- AMC 500: Alexander Technique

- MUI 106: Survey of the Music Industry

Total Credits: 18

## Restrictions:

Students pursuing the B.A. or B.M. in the Setnor School of Music are ineligible for this minor.

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## Musical Theater (B.F.A)

Contact: Department of Drama, 820 East Genesee Street, 315-443-2669.

Faculty Gerardine M. Clark, James Clark, Rodney S. Hudson, Elizabeth Ingram, Malcolm Ingram, Marie Kemp, Victor Lazarow, Anthony Salatino, David Wanstreet:

The bachelor of fine arts (B.F.A.) degree program in musical theater is one of the few specialized musical theater programs in the country. The purpose of the musical theater program is to train students in a systematic way that prepares them to compete realistically in the complex professional world of musical theater. Achieving this goal requires a carefully structured balance of studio and academic work. Musical theater studio work requires skills not only in dramatic performance, but in music and dance as well. The B.F.A. program in musical theater utilizes the resources of both the Department of Drama and the Setnor School of Music. Students develop their skills in a structured, intensive format that features careful and expert guidance.

Performance is a major focus of the 128-credit program. Students gain skills and experience in the various modes of musical theater: the revue, traditional musical comedies, operettas, and new and experimental forms. Coursework includes a balance of acting, voice, dance, theater history, music theory, and liberal education studies.

The first year is the foundation for all future training. It focuses on techniques of acting, ballet, voice—both singing and speaking—sight-singing, music theory, dramatic theory, and technical theater crafts. Writing is also a requirement for all musical theater majors. The first year is a non-performance year, but students are assigned to work on one production behind the scenes. They may elect to work on additional productions in a wide variety of jobs.

After the first year, students may audition for all productions—musicals, dramas, films—i.e., all productions connected with the Department of Drama and Syracuse Stage. They also begin specialized training in musical theater performance, scene study, audition techniques, musical theater history, musical theater dance, and choreography. Supplementing these studies are courses in theater history, additional weekly lessons in voice and piano, vocal ensemble experience, and academic electives.

The B.F.A. Musical Theater degree program requires 128 credits.

### B.F.A. MUSICAL THEATER DEGREE REQUIREMENTS

#### First Year, Fall Semester

DRA 090 Theater Laboratory 0-1

DRA 115 Introduction to the Theater 3

DRA 125 Introduction to Acting 3

Ballet (level TBD) 2

MTC 125 Introduction to Music Theory 3

DRD 115 Introduction to Theater Production 2

VOC 110 Voice Instruction 1

DRA 260 Musical Theater Practicum 1

WRT 105 Writing Studio 1 3

18

#### First Year, Spring Semester

DRA 090 Theater Laboratory 0-1

DRA 116 Introduction to the Theater II 3

DRA 126 Introduction to Acting II 6

Ballet (Level TBD) 2

DRD 116 Introduction to Theater Production II 2

VOC 110 Voice Instruction 1

DRA 260 Musical Theater Practicum 1

MTC 225 Sight-Singing I 1

WRT 205 Writing Studio 2 3

19

#### Sophomore Year, Fall Semester

DRA 090 Theater Laboratory 0-1

DRA 352 Survey of Theater History 3

DRA 220 Introduction to Scene Study 3

Ballet (Level TBD) 2

Dance Elective 2  
DRA 261 Introduction to Musical  
Theater Performance 3  
VOC 210 Voice Instruction 1  
PNO 120 Piano Instruction 1  
MTC 226 Sight-Singing II 1  
DRA 221 Voice/Verse Practicum I 3  
19

Sophomore Year, Spring Semester  
DRA 090 Theater Laboratory 0-1

DRA 453 History of Musical Theater 3  
DRA 220 Introduction to Scene Study 3  
Ballet (Level TBD) 2  
Dance Elective 2  
DRA 262 Introduction to Musical  
Theater Performance II 3  
VOC 210 Voice Instruction 1  
PNO 120 Piano Instruction 1

DRA 222 Voice/Verse Practicum II 3  
18

Junior Year, Fall Semester

DRA 090 Theater Laboratory 0-1  
Dance Elective 2  
VOC 310 Voice Instruction 1

DRA 362 Musical Theater Scene Study 3  
Drama Elective 3  
Academic Electives 6  
15

Junior Year, Spring Semester  
DRA 090 Theater Laboratory 0-1  
Dance Elective 2

VOC 310 Voice Instruction 1  
Drama Elective 3

Academic Electives 9  
15

Senior Year, Fall Semester  
DRA 090 Theater Laboratory 0-1

DRA 410 Auditioning for Musical Theater 3  
Dance Elective 2  
Drama Elective 3  
VOC 410 Voice Instruction 1  
Academic Elective 3

12

Senior Year, Spring Semester  
Upper-level Acting 3

DRA 450 Advanced Musical  
Theater Performance 3  
Academic Electives 6  
12

Total 128

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Organ

Contact: Steven Heyman, Chair, Department of Applied Music and Performance

310 Crouse College, 315-443-1638, sheyman@syr.edu

Faculty: Joseph Downing, Fred Karpoff, Olukola Owolabi

The performance program leads to the Bachelor of Music degree and stresses the development of technical skills, repertory, poise, and overall musicianship. Since most performers continue study beyond the bachelor's degree, the program also provides a sound basis for advanced study. To reflect preparation for upper-division recital(s), upper-division credits in the principal performance area increase from 2 to 4 credits per hour of instruction.

#### MAJOR REQUIREMENTS

##### First Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 145Diatonic Harmony I 3

MTC 147Ear Training I 1

MHL 168History of European Music Before 1750 3

Large Ensemble 1

WRT 105Writing Studio 1 3

Area Specialization/Academic 1-3

Total Credits: 15-17

##### First Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 146Diatonic Harmony II 3

MTC 148Ear Training II 1

MTC 267History of European Music from 1750-1914 3

Large Ensemble 1

WRT 205Writing Studio 2 3

Area Specialization/Academic 1-3

Total Credits: 15-17

##### Sophomore Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 245Chromatic Harmony I 3

MTC 247Ear Training III 1

MHL 268European & American Music Since 1914 3

Large Ensemble 1

Foreign Language 4

Academic Elective 2

Total Credits: 17

##### Sophomore Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 246Chromatic Harmony II 3

MTC 248Ear Training IV 1

MHL 185Introduction to World Music 3

Large Ensemble 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3  
Total Credits: 17

Junior Year, Fall Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
MTC 545Counterpoint 3  
CTG 545Basic Conducting 2  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 2-3  
Total Credits: 16-17

Junior Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area/Recital 4  
MTC 546Analysis of 20th-Century Music 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Senior Year, Fall Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
500-Level Elective In Music History and Literature 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Senior Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
MHL Elective 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Total Minimum Credits: 126

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## Painting

Contact: Kevin Larmon [klarmon@syr.edu](mailto:klarmon@syr.edu) Department of Art, 102 Shaffer Art Building, 315-443-4613

Faculty Sharon Gold, Andrew Havenhand, Ludwig K. Stein, Jerome P. Witkin, Stephen Zaima

The B.F.A. degree program in painting requires 126 credits. Students who pursue this degree develop their technical skills through extensive studio work in painting, drawing, and special studio seminars. Courses in art history and critical theory expose students to concepts of the past and heighten their visual and intellectual perception. Students are encouraged to experiment in new directions and to remain open to innovative ideas and approaches as they develop their own unique means of expression.

Painting students study under a diversified professional faculty whose styles and modes of painting run the gamut of contemporary expression. There is also a visiting artist program. The Shaffer Art Building offers well-lit studios, a well-supervised wood shop, and individual studios for senior majors.

In addition, students can study abroad in our Florence program, as well as take classes in New York City as part of the SU MAYmester summer program.

## MAJOR REQUIREMENTS

### First Year, Fall Semester

ART101 First-Year Colloquium 1

Art or design history 3

FND Studio 3

FND Studio 3

WRT 105 Writing Studio 1 3

Elective 3

Elective (optional) 3

15-18

### First Year, Spring Semester

Art or design history 3

FND Studio 3

FND Studio 3

Elective 3

Elective 3

Elective (optional) 3

15-18

### Sophomore Year, Fall Semester

PTG 281 Introductory Painting 3

PTG 255 or Figure Drawing 3

PTG 256

Studio electives 6

Academic elective 3

Art history 3

18

### Sophomore Year, Spring Semester

PTG 282 Introductory Painting 3

Studio electives 9

WRT 205 Writing Studio 2 3

Academic elective 3

18

### Junior Year, Fall Semester

PTG 381 Intermediate Painting 3

Studio electives 6

Academic elective 3

Art history 3

15

### Junior Year, Spring Semester

PTG 382 Intermediate Painting 3

PTG 355 or 356 Intermediate Drawing 3

Studio elective 3

Academic elective 3

Art history 3

15

### Senior Year, Fall Semester

PTG 481 Advanced Painting 3

Studio elective 3

Academic electives 6

Painting elective 3

15

### Senior Year, Spring Semester

PTG 482 Advanced Painting 3

Studio elective 3

Academic elective 3

Painting electives 6

15

Foundation 30

Studio concentration 33

Studio electives 30

Academic electives 21

Academic requirement 3

Art history 9

Total Credits: 126

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## Painting Minor

The Painting Minor aims to extend students' painting skills, develop their art and critical practices, broaden their understanding and abilities to make and discuss art. It also aims to help students understand that a practicing visual artist needs to think globally and be knowledgeable in many cultural and social discourses in order to be conversant in contemporary issues and critical practices.

Whether the minor fulfills students' desires to study painting or helps bring new skills to their major, the benefit for those who major or minor in painting will be advanced by the conflation of diverse skill sets, opening up creative, intellectual and conceptual content to each others work and class dynamic.

### Admission Requirements

- 3.0 GPA (based on the completion of 30 credits with a minimum of 15 credits taken at Syracuse University)
- An interview with the coordinator is required.
- Must enter program no later than the first semester of Sophomore year. (Open to campus as a whole)
- Applications accepted at any time, but will adhere to October 15 deadline for processing and approval in the Fall semester (March 1st for Spring semester).

### Curriculum Requirements:

To complete the minor in Painting, students must complete a total of 18 credits, over a 3 to 4 year period. Students can also include 300 level or higher SUAbroad studio, critical studies, or art history classes towards their minor. In addition, those taking the Department of Art Lecture series, which is currently offered every semester for 1 credit, can apply up to 3 of those credits as well.

#### \*Required Courses (6 credits)

PTG 255 Figure Drawing I 3 credits

PTG 256 Figure Drawing II 3 credits

\*PTG 281 Introductory Painting I 3 credits

\*PTG 282 Introductory Painting II 3 credits

Art 200 Visiting Artist Lectures (1 credit, repeatable to maximum of 3 credits)

Lecture and Studio Courses (6 credits)

#### Choose from:

PTG 381 Intermediate Painting I 3 credits

PTG 382 Intermediate Painting II 3 credits

PTG 355 Intermediate Drawing 3 credits

PTG 487 Landscape Painting 3 credits

Elective Advanced Studio, Theory & Praxis Seminar Courses (6 credits)

#### Choose From:

\*\*PTG 481 Advanced Painting I 3 credits

\*\*PTG 482 Advanced Painting II 3 credits

STA 531 Professional Practices in the Arts 3 credits

\*\*STA 553 Decoding Images of Representation 3 credits

STA 500 Art in New York City 3 credits

ART 361/561 Studio Symposium 3 credits

Art 200 Visiting Artist Lectures 1 credits

\*\* Students that demonstrate significant promise and commitment, by maintaining a 3.0 or higher GPA in lower division Ptg. or Art classes, will be allowed into seminar and advanced studio classes to complete the minor, as well as apply to be a major in the Painting Program.

\*\* Students that demonstrate significant promise and commitment, by maintaining a 3.0 or higher GPA in lower division Ptg. or Art classes, will be allowed into seminar and advanced studio classes to complete the minor, as well as apply to be a major in the Painting Program. Art 200 Visiting Artist Lectures 1

credits ART 361/561 Studio Symposium 3 credits STA 500 Art in New York City 3 credits \*\*STA 553 Decoding Images of Representation 3 credits STA 531 Professional Practices in the Arts 3 credits \*\*PTG 482 Advanced Painting II 3 credits \*\*PTG 481 Advanced Painting I 3 credits Choose From: Elective Advanced Studio, Theory & Praxis Seminar Courses (6 credits) PTG 487 Landscape Painting 3 credits PTG 355 Intermediate Drawing 3 credits PTG 382 Intermediate Painting II 3 credits PTG 381 Intermediate Painting I 3 credits Choose from: Lecture and Studio Courses (6 credits) Art 200 Visiting Artist Lectures (1 credit, repeatable to maximum of 3 credits)\*PTG 282 Introductory Painting II 3 credits \*PTG 281 Introductory Painting I 3 credits PTG 256 Figure Drawing II 3 credits PTG 255 Figure Drawing I 3 credits \*Required Courses (6 credits) To complete the minor in Painting, students must complete a total of 18 credits, over a 3 to 4 year period. Students can also include 300 level or higher SUAbroad studio, critical studies, or art history classes towards their minor. In addition, those taking the Department of Art Lecture series, which is currently offered every semester for 1 credit, can apply up to 3 of those credits as well. Curriculum Requirements: Applications accepted at any time, but will adhere to October 15 deadline for processing and approval in the Fall semester (March 1st for Spring semester). Must enter program no later than the first semester of Sophomore year. (Open to campus as a whole) An interview with the coordinator is required. 3.0 GPA (based on the completion of 30 credits with a minimum of 15 credits taken at Syracuse University) Admission Requirements

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## Percussion

### Percussion (Performance) – B.Mus.

Contact: Steven Heyman, Chair, Department of Applied Music and Performance

310 Crouse College, 315-443-1638, sheyman@syr.edu

Faculty: Michael Bull, Joshua Dekaney

The performance program leads to the B.Mus. degree and stresses the development of technical skills, repertory, poise, and overall musicianship. Since most performers continue study beyond the bachelor's degree, the program also provides a sound basis for advanced study. To reflect preparation for upper-division recital(s), upper-division credits in the principal performance area increase from 2 to 4 credits per hour of instruction.

### MAJOR REQUIREMENTS

#### First Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 145Diatonic Harmony I 3

MTC 147Ear Training I 1

MHL 168History of European Music Before 1750 3

Large Ensemble 1

WRT 105Writing Studio 1 3

Area Specialization/Academic 1-3

Total Credits: 15-17

#### First Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 146Diatonic Harmony II 3

MTC 148Ear Training II 1

MTC 267History of European Music from 1750-1914 3

Large Ensemble 1

WRT 205Writing Studio 2 3

Area Specialization/Academic 1-3

Total Credits: 15-17

#### Sophomore Year, Fall Semester

Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 245Chromatic Harmony I 3  
MTC 247Ear Training III 1  
MHL 268European and American Music Since 1914 3  
Large Ensemble 1  
Foreign Language 4  
Academic Elective 2  
Total Credits: 17

#### Sophomore Year, Spring Semester

Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 246Chromatic Harmony II 3  
MTC 248Ear Training IV 1  
MHL 185Introduction to World Music 3  
Large Ensemble 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3  
Total Credits: 17

#### Junior Year, Fall Semester

Weekly Student Convocation 0  
Principal Performance Area 4  
MTC 545Counterpoint 3  
CTG 545Basic Conducting 2  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 2-3  
Total Credits: 16-17

#### Junior Year, Spring Semester

Weekly Student Convocation 0  
Principal Performance Area/Recital 4  
MTC 546Analysis of 20th-Century Music 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

#### Senior Year, Fall Semester

Weekly Student Convocation 0  
Principal Performance Area 4  
500-Level Elective In Music History and Literature 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

#### Senior Year, Spring Semester

Weekly Student Convocation 0  
Principal Performance Area 4  
MHL Elective 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

## Physical Computing Minor

### Coordinators:

Annina Ruest, Assistant Professor, arust@syr.edu

Heath Hanlin, Department Chair/Associate Professor, hahanlin@syr.edu

### Admission:

Students interested in this minor should meet with the faculty contact. Prospective students must submit a current transcript, a letter of interest not to exceed 1500 words, and any work in the form of digital media files that may be related to the minor. There are no absolute requirements in terms of number of works or GPA – acceptance into the minor will be made solely by the faculty contact for the minor upon review of application materials. Students need to maintain a 3.0 GPA average in the minor curriculum; otherwise they may be disenrolled from the minor.

### Curriculum Requirements:

It is recommended that students take 9-12 credits at the 300 level or above.

#### Core requirements ( 6 credits)

CAR 111 Introduction to programming for visual and networked art

CAR 211 Intro to electronics and electronic object making for art

#### Advanced Core Requirements - choose two ( 6 credits)

CAR 520 Electronic Environments Workshop

CSE 471 Embedded Systems

CIS 543 Control of Robots

CIS 425 Introduction to Computer Graphics

CAR 230 Topics in Computer Gaming I

CAR 330 Topics in Computer Gaming II

#### Object Fabrication/Object Design electives – choose any 1 of the following (3 credits)

SCU 392 Plastics Techniques Research

SCU 391 Wood and Mixed-Media Research

SCU 200 Selected Topics

SCU 300 Selected Topics

DES 300/500 Fabrication Skills and Methods

DES 300/500 Digital Fabrication

SCU 207 Sculpture Survey

IND 479 Industrial Design Interface

#### Technology electives - choose any 1 of the following (3 credits)

ARC 572 Advanced Computer Applications in Architecture

IST 359 Introduction to Database Management Systems

CIS 400 Selected Topics: Class Topic: Mobile App Development.

IST 488 Social Web Technologies

IST 263 Web Design and Mgmt

IST 256 Appl.Prog.For Information Syst

IST 553 Info Arch for Internet Svces

ECS 102 Introduction to Computing

CIS 467 Intro/Artfcl. Intellgence

CIS 468 Natural Language Processing

CIS 400 Selected Topics: Class Topic: Applied Data Mining

CIS 400 Selected Topics: Class Topic: Human-Computer Interaction

Total Credits: 18

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## Piano

Piano (Performance) – B.Mus.

Contact: Steven Heyman, Chair, Department of Applied Music and Performance

Faculty: Bonnie Choi, Kathleen Haddock, Amy Heyman, Steven Heyman, Fred Karpoff, Thomaida Trebicka

The performance program leads to the B.Mus. degree and stresses the development of technical skills, repertory, poise, and overall musicianship. Since most performers continue study beyond the bachelor's degree, the program also provides a sound basis for advanced study. To reflect preparation for upper-division recital(s), upper-division credits in the principal performance area increase from 2 to 4 credits per hour of instruction.

#### MAJOR REQUIREMENTS

First Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 145 Diatonic Harmony I 3

MTC 147 Ear Training I 1

MHL 168 History of European Music Before 1750 3

Large Ensemble 1

WRT 105 Writing Studio 1 3

Area Specialization/Academic 1-3

Total Credits: 15-17

First Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 146 Diatonic Harmony II 3

MTC 148 Ear Training II 1

MTC 267 History of European Music from 1750-1914 3

Large Ensemble 1

WRT 205 Writing Studio 2 3

Area Specialization/Academic 1-3

Total Credits: 15-17

Sophomore Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 245 Chromatic Harmony I 3

MTC 247 Ear Training III 1

MHL 268 European and American Music Since 1914 3

Large Ensemble 1

Foreign Language 4

Academic Elective 2

Total Credits: 17

Sophomore Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 246 Chromatic Harmony II 3

MTC 248 Ear Training IV 1

MHL 185 Introduction to World Music 3

Large Ensemble 1

Academic Elective 3

Area Specialization/Music Elective(S) 3

Total Credits: 17

Junior Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 4

MTC 545 Counterpoint 3

CTG 545 Basic Conducting 2

Large Ensemble 1

Small Ensemble/Coaching 1

Academic Elective 3

Area Specialization/Music Elective(S) 2-3

Total Credits: 16-17

Junior Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area/Recital 4

MTC 546 Analysis of 20th-Century Music 3

Large Ensemble 1

Small Ensemble/Coaching 1

Academic Elective 3

Area Specialization/Music Elective(S) 3-5

Total Credits: 15-17

Senior Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 4

500-Level Elective In Music History and Literature 3

Large Ensemble 1

Small Ensemble/Coaching 1

Academic Elective 3

Area Specialization/Music Elective(S) 3-5

Total Credits: 15-17

Senior Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area 4

MHL Elective 3

Large Ensemble 1

Small Ensemble/Coaching 1

Academic Elective 3

Area Specialization/Music Elective(S) 3-5

Total Credits: 15-17

Total Minimum Credits: 126

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## Printmaking

Contact: Holly Greenberg, [hgreenbe@syr.edu](mailto:hgreenbe@syr.edu)

Department of Art, ComArt Building, 315-443-3700

Faculty Holly Greenberg, Dusty Herbig

[vpa.syr.edu/art-design/art/undergraduate/printmaking](http://vpa.syr.edu/art-design/art/undergraduate/printmaking)

All printmaking courses are offered in a workshop environment to make available a variety of traditional and contemporary processes in intaglio, lithography, serigraphy, relief, collography, and photographic processes in printmaking. Advanced students work in hand papermaking and bookmaking as well. A broad drawing curriculum is considered essential to printmaking. In addition, the student is encouraged to take advantage of other disciplines and resources in the school and the University.

The B.F.A. degree program in printmaking, requiring 126 credits, promotes an open, experimental attitude within the rigors of high professional and technical standards. Students are urged to explore the various technical printmaking processes and their aesthetic qualities before narrowing their interests to a specific technique. As their studies progress, students may pursue a more thorough investigation of a particular process. Students may, however, decide to continue working within a broad scope of printmaking throughout their college careers, taking advantage of the overlapping aesthetic and technical possibilities existing in the range of printmaking processes.

Regular critiques of student work provide an active exchange of ideas on aesthetic and media interests. Faculty members can help students identify and work toward their educational and career goals while they complete the requirements of the program.

### MAJOR REQUIREMENTS

First Year, Fall Semester

ART 101 First-Year Colloquium 1

Art or design history 3

FND Studio 3

FND Studio 3

WRT 105 Writing Studio 1 3

Elective 3

Elective (optional) 3

15-18

First Year, Spring Semester

Art or design history 3

FND Studio 3

FND Studio 3

Elective 3

Elective 3

Elective (optional) 3

15-18

Sophomore Year, Fall Semester

PRT 251 Printmaking: Introductory Intaglio 3

Drawing elective 3

Studio elective 3

Academic elective 3

Art history 3

15

Sophomore Year, Spring Semester

PRT 253 Printmaking: Introductory Lithography 3

Drawing elective 3

Studio elective 3

Academic elective 3

Art history 3

WRT 205 Writing Studio 2 3

18

Junior Year, Fall Semester

PRT 257 Printmaking: Introduction Relief 3

PRT 351 Printmaking: Intermediate Workshop 3

Studio elective 3

Academic elective 3

Art history 3

15

Junior Year, Spring Semester

PRT 255 Printmaking: Introductory Serigraphy 3

PRT 352 Printmaking: Intermediate Workshop 3

Studio electives 6

Academic electives 6

18

Senior Year, Fall Semester

PRT 451 Printmaking: Advanced Workshop 3

PRT 551 Hand Papermaking Workshop 3

Studio electives 6

Academic elective 3

15

Senior Year, Spring Semester

PRT 430 Senior Portfolio and Research Paper: Printmaking 3

PRT 452 Printmaking: Advanced Workshop 3

PRT 552 Hand Paper Print/Book Workshop 3

Studio elective 3

Academic elective 3

15

Foundation 30

Studio concentration 39

Studio electives 24

Academic electives 21

Academic requirement 3  
Art history 9

Total Credits: 129

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## Private Music Study

Minor in Private Music Study

Contacts: Keyboard: Steven Heyman

310 Crouse College, 315-443-1638, sheyman@syr.edu

Percussion: Joshua Dekaney

301 Crouse College, 315-443-2191, jdekane@syr.edu

Guitar: Dr. Kenneth Meyer

121B Crouse College, 315-443-2765, kmeyer@syr.edu

Faculty: Rick Balestra, Bonnie Choi, Joshua Dekaney, Kathleen Haddock, Amy Heyman, Steven Heyman, Fred Karpoff, Kenneth Meyer, Rick Montalbano, Thomaïda Trebicka

The Minor in Private Music Study is designed for students from any degree program on campus, except those in the Setnor School of Music, who want to study music privately on guitar, drum set, piano or organ. Students who perform other instruments may petition to be accepted into the Minor in Private Music Study. The specific requirements are as follows: 4 semesters of private lessons (4-8 credits) and 10-14 credits of private lessons, ensembles, or other music courses through advisement.

Requirements for Admission:

- Meet with designated Setnor School of Music advisor prior to beginning the program.

- 3.3 (B+) GPA in one semester of lessons.

- At least one full semester of private study on their instrument with a School of Music applied instructor. Positive recommendation in writing from their applied instructor.

Curriculum Requirements:

The Minor in Private Music Study requires eighteen credits of coursework. Of these, a minimum of 4 credits must be in School of Music applied lessons listed below.

DRS 110, 210, 310, 410 Drumset/Non Music Majors

GTR 160, 260, 360, 460 Guitar/Non Music Majors

ORG 110, 210, 310, 410 Organ/Non Music Majors

PNO 120, 220, 320, 420 Piano/Non Music Majors

The remaining 14 credits can be selected from an assortment of courses offered by the School of Music and can include additional lessons, ensembles, courses in music theory, music history and literature, conducting, music industry, and music education. This will be monitored by careful advising. Twelve credits in the minor should be at the 300 level or higher. Other music courses as they appear each semester may be taken by permission of the advisor. No courses taken for zero credit will count toward the minor. A preliminary list of existing courses suitable for students in the Minor in Music Performance is below.

•Applied Lessons:

- DRS 110, 210, 310, 410 Drumset/Non Music Majors

- GTR 160, 260, 360, 460 Guitar/Non Music Majors

- ORG 110, 210, 310, 410 Organ/Non Music Majors

- PNO 120, 220, 320, 420 Piano/Non Music Majors

•Music Theory Courses:

- MTC 125: Introduction to Music Theory

- MTC 225: Sightsinging for Non-Music Majors

- MTC 145, 146, 147, 148, 245, 246, 247, 248: Music Major level theory classes

- MTC 100/200/300/400: Jazz Piano

- MTC 100/200/300/400: Jazz Guitar

- MTC 100/200/300/400: Jazz Drums

- MTC 100/200/300/400: Jazz Voice

- MTC 551: Songwriting

- MTC 555: Jazz Improvisation I

- MTC 556: Jazz Improvisation II

- MTC 557: Jazz Improvisation III

- MTC 558: Jazz Improvisation IV

•Music History and Literature:

- MHL 535: Orchestral Repertoire

- MHL 500: Advanced Orchestral Repertoire

- MHL 466: History of Jazz

- MHL 566: Topics vary from semester to semester

- MHL 500: Topics vary from semester to semester

- Any HOM Music History class

•Music Industry, Music Education, and Conducting

- CTG 545: Basic Conducting
  - MUE 518: Marching Band Techniques
  - MUI 205: Music Industry I
  - MUI 206: Music Industry II
  - AMC 500: Alexander Technique
  - Ensembles
  - Any ENI ensemble
  - Any ENC ensemble
  - Any ENV ensemble
- Total Credits: 18  
Restrictions:

Students pursuing the B.A. or B.M. in the Setnor School of Music are ineligible for this minor.

## Recording And Allied Entertainment Industries

Bandier Program for Music and the Entertainment Industries – B.S.  
Contact: Ulf Oesterle, Chair, Department of Music and Entertainment Industries  
207 Crouse College, 315-443-3119, uoesterl@syr.edu

Faculty: James S. Abbott, Bill DiCosimo, Michael Dubaniewicz, Bob Halligan Jr., Patrick MacDougall, Daniel G. Mastronardi, Ulf Oesterle, David M. Rezak

The Bandier Program for Music and the Entertainment Industries (Recording and Allied Entertainment Industries (RA) is a multidisciplinary program housed within the Setnor School of Music in the College of Visual and Performing Arts. The program leads to a Bachelor of Science degree, and includes an understanding of music, communications, business, and entrepreneurship. It provides a global view of music and its role in entertainment media. The program relies on additional coursework in the S.I. Newhouse School of Public Communications, the Whitman School of Management, and the College of Arts and Sciences. A strong liberal arts component rounds out the program. Using industry-leading alumni and friends, plus the University's vast resources, this unique program prepares students to compete in the fast-paced, ever-evolving entertainment industry.

Students are encouraged to take real-life experiences in the form of internships (experience credit), and to pursue particular areas of interest within the industry with independent study courses. Juniors and seniors have the option of spending a semester in Los Angeles, California. They are also encouraged to study the rapidly evolving global business environment in London. An LA and/or London semester internship is one of several encouraged and coordinated by the program.

The Bandier Program has been designed with input from some of the most respected executives in music and entertainment. These high-ranking leaders, many of whom are alumni, are committed to ongoing involvement as visiting lecturers in the Soyars Leadership Lecture Series. There are no audition or performance requirements for admission into the program. Students will complete a single degree in the College of Visual and Performing Arts (125 credits).

### MAJOR REQUIREMENTS

Courses below denote main campus offerings. LA and London semester courses vary and fulfill some requirements listed below.

#### First Year, Fall Semester

Academic Elective 3  
Foreign Language 4  
HOM 195 Performance Live 3  
Academic Elective, MAT 121 or 183 4  
MHL 071 Weekly Convocation 0  
MUI 103 Music Industry Forum 0  
MUI 310 Soyars Leadership Series 1  
WRT 105 Writing Studio I 3  
Total Credits: 17

#### First Year, Spring Semester

Academic Elective 3  
Foreign Language 4  
COM 107 Communications & Society 3  
HOM 200+ Level Music Elective 3  
MHL 072 Weekly Convocation 0  
MUI 310 Soyars Leadership Series 1  
WRT 205 Writing Studio II 3  
Total Credits: 17

#### Sophomore Year, Fall Semester

Academic Elective 3  
ECN 203 Economic Ideas and Issues 3  
HOM 300+ Level Music History Elective 3  
MHL 073 Weekly Convocation 0  
MUI 203 Music Industry Forum 0  
MUI 205 Music Industry I 3  
MUI 307 Studio Recording 3  
MUI 310 Soyars Leadership Series 1  
RAE 470 Experience Credit 2  
Total Credits: 18

Sophomore Year, Spring Semester  
ACC 201 Intro to Accounting 3  
CRS 325 Presentational Speaking 3  
MHL 074 Weekly Convocation 0  
MUI 206 Music Industry II 3  
MUI 305 Music Industry & Media 3  
MUI 310 Soyars Leadership Series 1  
TRF 235 Principles & Practices: TRF 3  
Total Credits: 16

Junior Year, Fall Semester  
Academic Elective 3  
EEE 370 Introduction to Entrepreneurship 3  
MHL 075 Weekly Convocation 0  
MUI 303 Music Industry Forum 1  
MUI 310 Soyars Leadership Series 1  
RAE 470 Experience Credit 2  
MUI or RAE Elective 3  
RAE 501 Reconciling Arts & Commerce 3  
Total Credits: 16

Junior Year, Spring Semester  
Elective from Newhouse/Whitman/VPA 3  
Whitman Elective 3  
HOM 300+ Music History Elective 3  
MHL 076 Weekly Convocation 0  
MUI 310 Soyars Leadership Lecture Series 1  
RAE 400 Social Media for the Music Business 3  
MUI or RAE Elective 3  
Total Credits: 16

Senior Year, Fall Semester  
Academic Elective 3  
Arts and Sciences Elective 3  
HOM Upper Division Music Elective 3  
MAR 301 Principles of Marketing 3  
MHL 077 Weekly Convocation 0  
MUI 310 Soyars Leadership Series 1  
MUI 403 Music Industry Forum 1  
RAE 470 Experience Credit 2  
Total Credits: 16

Senior Year, Spring Semester  
Academic Elective 3  
Academic Elective 3  
COM 506 Communications Law for TRF 3  
MHL 078 Weekly Convocation 0  
MUI or RAE 300+ Music Industry/RAE Elective 2  
MUI 310 Soyars Leadership Lecture Series 1  
Total Credits: 12

Total Credits: 125

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# Sculpture

Contact: Sam Van Aken, [svanaken@syr.edu](mailto:svanaken@syr.edu)  
Department of Art, ComArt Building, 315-443-3700 or 315-443-3619

Faculty Robert Wysocki

Sculpture involves three-dimensional experimentation with forms, materials, and concepts. Students in this B.F.A. degree program, which requires 126 credits, consider problems of composition and expression in traditional media (metals, clay, and wood) as well as contemporary modes (plastics, mixed media, and digital).

The program stresses individual growth and the development of innovative ideas and forms through a wide variety of technical processes. The large degree of freedom in the program requires individual responsibility on the part of each student. The department provides faculty assistance and guidance, optimal facilities, and lectures and workshops by visiting artists.

Courses in sculpture introduce students to the broad range of sculptural processes. They learn modeling, welding techniques, polymers and casting metals, casting resins and fiberglass lay-up, wood carving, lamination, and contemporary media. Advanced studios allow students to pursue a sculptural area of concentration, such as a thematic direction or a specific medium.

Faculty members maintain close contact with students to ensure the open exchange of ideas and to observe student progress. Visiting artists and lecturers bring additional insights and experiences to workshops and guest professorships.

## MAJOR REQUIREMENTS

First Year, Fall Semester

ART 101 First-Year Colloquium 1

Art or design history 3

FND Studio 3

FND Studio 3

WRT 105 Writing Studio 1 3

Elective 3

Elective (optional) 3

15-18

First Year, Spring Semester

Art or design history 3

FND Studio 3

FND Studio 3

Elective 3

Elective 3

Elective (optional) 3

15-18

Sophomore Year, Fall Semester

SCU 295 Introductory Sculpture 3

Studio electives 6

Academic elective 3

Art history 3

15

Sophomore Year, Spring Semester

SCU 296 Introductory Sculpture 3

Studio electives 3-6

Academic electives 6

WRT 205 Writing Studio 2 3

15-18

Junior Year, Fall Semester

SCU 391 Wood and Mixed-Media Research 3

SCU 395 Intermediate Sculpture 3

Studio elective 3-6

Academic elective

Art history 3

15-18

Junior Year, Spring Semester

SCU 392 Plastics-Techniques Research 3

SCU 396 Intermediate Sculpture 3

Studio electives 6

Academic elective 3

Art history 3

18

Senior Year, Fall Semester

SCU 495 Advanced Sculpture 3

Sculpture elective 3

Studio electives 6

Academic elective 3

15

Senior Year, Spring Semester

SCU 496 Advanced Sculpture 3

Sculpture elective 3

Studio electives 6

Academic elective 3

15

Foundation 30

Studio concentration 30

Studio electives 33

Academic electives 21

Academic requirement 3

Art history 9

Total Credits: 126

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## Sculpture Minor

Contact:

Robert Wysocki, [rjwysock@syr.edu](mailto:rjwysock@syr.edu)

Department of Art at Comart Facility

Minor in Sculpture

The minor will consist of 18 credits and function as a theoretical and practical based studio minor, intended to complement the studio-based majors in the College of Visual and Performing Arts and the School of Architecture. Additionally, the Sculpture minor will provide non-studio majors a concentration in the theory and concepts of studio object making in a studio based research setting. The minor is open to all Syracuse University undergraduates.

Admission:

3.0 GPA (based on the completion of 30 credits, 15 of which must have been taken at Syracuse University)

Must be enrolled in program no later than the first semester of junior year.

Limited to 6-8 students a year initially

Applications accepted at any time, but will adhere to October 15 deadline for processing and approval in the Fall semester (March 1st for Spring semester)

Proposed Oversight

The first coordinator will be Robert Wysocki of the Department of Art, Sculpture. The coordinator will have a maximum tenure in the position for three years.

Requirements:

The Minor in Sculpture requires 18 credits of coursework. There are three required courses, 3 credits each: SCU 293 Sculpture Theory & Practice I or SCU 393 Sculpture Theory & Practice II; SCU 295 Introductory Sculpture or SCU 296 Introductory Sculpture; and SCU 395 Intermediate Sculpture.

Furthermore, to ensure a breadth of materials, processes and techniques germane to sculpture, students will be required to take three 3-credit courses from each of the following categories for a total of 9 credits: SCU 300 Metal Dynamics, SCU 300 Foundry/Metal Casting, SCU 391 Wood & Mixed Media, SCU 392 Plastics Technique, SCU 300 Selected Topics Studio, SCU 495 Advanced Sculpture.

Sculpture Minor Course Offerings

## Minor Requirements

Students are required to take each of the following:

3 credits SCU 295 Introductory Sculpture or SCU 296 Introductory Sculpture

3 credits SCU 395 Intermediate Sculpture

Students are required to take one of the following:

3 credits SCU 293 Theory and Practice 1 or SCU 393 Theory and Practice 2

Students are required to take at least three (3) from the following courses:

9 credits SCU 300 Metal Dynamics

SCU 300 Foundry/Metal Casting

SCU 391 Wood & Mixed Media

SCU 392 Plastics Technique

SCU 300 Selected Topics Studio

SCU 495 Advanced Sculpture

(Prerequisites may be waived for minors.)

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## Sound Recording Technology

B. Mus. in Sound Recording Technology

Contact:

James S. Abbott, Crouse 406 (315)443-4107 jsabbott@syr.edu

Faculty:

J. Abbott, jsabbott@syr.edu, U. Oesterle, uoesterl@syr.edu, W. DiCosimo wjdicosi@syr.edu

Description:

The sound recording technology program provides technologically inclined musicians with the practical and theoretical background needed for success in today's music production industry. The program provides a multidisciplinary four-year Bachelor of Music degree with coursework in music, acoustics, sound production, new media design, computer science, and mathematics. Particular emphasis is placed on audio engineering as a technical-artistic field, recognizing that audio professionals often serve as the interface connecting the technical and artistic personnel in the music industry.

The program provides extensive project experience in state-of-the-art studios where students record, produce, mix, and master sound recordings. Students also develop technical and managerial skills that are essential to the profession. A high level of cross-disciplinary collaboration is encouraged, with exposure to production techniques for many musical styles and media deliverables. Students graduate with a portfolio of work that includes classical, world, popular, and jazz styles delivered on traditional formats alongside new industry standards such as web-based media and video games.

Possible careers include work as a recording engineer, producer, programmer, musician, and technical engineer. The program also provides a foundation for graduate work in engineering and computer science.

Admission Prerequisite: Evidence of Pre-Calculus

Requirements:

Courses (required and elective):

Freshman Year

Fall

Principal Performance Area 2

MUI 103 Music Industry Forum 0

WRT 105 Writing Studio I 3

Secondary Performance Area 1

MAT 295 Calculus I 4

MHL 071 Weekly Convocation 0

MHL 168 European Music to 1750 3

MTC 145 Diatonic Harmony I 3

MTC 147 Ear training I 1

Large Ensemble 1

Small Ensemble 0

Total credits Fall: 18

Spring

Principal Performance Area 2

MUI 104 Music Industry Forum 0

WRT 205 Writing Studio II 3

Secondary Performance Area 1

MUE 115 Technology in Music Education 2

PSY 205 Foundations of Human Behavior 3

MHL 072 Weekly Convocation 0

MHL 267 History of European Music 1750-1945 3  
MTC 146 Diatonic Harmony II 3  
MTC 148 Ear training II 1  
Large Ensemble 0  
Small Ensemble 0  
Total credits Spring: 18

#### Sophomore Year

Fall  
Principal Performance Area 2  
MUI 203 Music Industry Forum 0  
Secondary Performance Area 1  
MUI 205 Music Industry I 3  
MHL 073 Weekly Convocation 0  
MUI 307 Studio Recording 3  
MHL 268 European & American Music Since 1945 3  
MTC 245 Chromatic Harmony I 3  
MTC 247 Ear training III 1  
Large Ensemble 1  
Small Ensemble 0  
Total credits Fall: 17

#### Spring

Principal Performance Area 2  
MUI 204 Music Industry Forum 0  
Secondary Performance Area 1  
MUI 206 Music Industry II 3  
MHL 074 Weekly Convocation 0  
MUI 309 Acoustics 3  
MHL 185 Introduction to World Music 3  
MTC 246 Chromatic Harmony II 3  
MTC 248 Ear training IV 1  
Large Ensemble 1  
Small Ensemble 0  
Total credits Spring: 17

#### Junior Year

Fall  
Principal Performance Area 1  
MUI 303 Music Industry Forum 1  
PHY 211 Physics I 3  
CTG 545 Basic Conducting 2  
MUI 308 Live Sound and Concert Recording 3  
PHY 221 Physics Lab I 1  
MHL 075 Weekly Convocation 0  
MUI 321 Audio Technical Services I (Recital Recording) 2  
Large Ensemble 1  
Small ensemble 0  
Music Elective 3  
Total credits Fall: 17

#### Spring

Principal Performance Area 1  
MUI 304 Music Industry Forum 1  
ECS 102 Introduction to Computing 3  
MHL 076 Weekly Convocation 0  
MUI 322 Audio Technical Services II (Recital Recording) 2  
Large Ensemble 1  
Small Ensemble 1  
Music Elective 3  
Total credits Spring: 12

#### Senior Year

Fall  
Principal Performance Area 1  
MUI 403 Music Industry Forum 1  
Free Elective 3  
MHL 077 Weekly Convocation 0  
MUI 409 Advanced DAW Production 3

Transmedia Elective 3  
MTC 560 Electroacoustic Composition 3  
MUI 411 Audio TA/Studio Management I 2  
Large Ensemble 1  
Small Ensemble 0  
Total credits Fall: 17  
Spring  
MHL 078 Weekly Convocation 0  
MUI 301 Record Production 2  
MTC 500 Performing With Computers 3  
MUI 408 Music Industry Practicum (Internship) 3  
MUI 412 Audio TA/Studio Management II 2  
MUI 414 Music Technology Practicum/Final  
Project 2  
Total credits Spring: 12  
  
Satisfactory Progress: Minimum 2.8  
  
Total Credits: 128  
  
Degree Awarded: B. Mus. (Bachelor of Music)

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## Special Studies In Art

The special studies in art program leads to the B.F.A. degree and is designed expressly for interdisciplinary study. The program is not automatically available; it must be mutually approved by the advisors in the various areas incorporated into the program. All applicants must undergo a personal interview and a portfolio review. In addition, a written proposal for the complete program of study is required, including specific courses and credits. Students are expected to complete the foundation program, and sophomores must have a 3.0 cumulative grade point average and a portfolio of superior caliber to be accepted. The decision to enroll in the special studies program must be made before the student accumulates 60 credits.

For further information and instructions for application, contact the Department of Art, 102 Shaffer Art Building, 315-443-4613.

### COURSES FOR NON-ART STUDENTS

Some studio and academic courses are open to non-art majors:

PTG 203/204, 503/504, SCU 207,208,507,508.

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## Stage Management (B.F.A.)

Contact: Department of Drama, 820 East Genesee Street, 315-443-2669

Faculty Don Buschmann

The Bachelor of Fine Arts in Stage Management prepares the student for a career as a professional stage manager. Program requirements are a combination of classes and experiential learning. The department works hand in hand with Syracuse Stage to provide a learning environment that emulates the professional world of the stage manager. First-year stage management students participate behind the scenes as production assistants. From the second year on, the students participate as assistant stage managers and production stage managers for main stage and Black Box Theatre productions. Advanced students may qualify for internships with Syracuse Stage productions and stage management departments that allow them to work as production assistants on professional productions. The stage management program leads to a B.F.A. degree and requires 124 credits.

### B.F.A. STAGE MANAGEMENT DEGREE REQUIREMENTS

First Year, Fall Semester

DRA 090 Theater Laboratory 0  
DRA 115 Introduction to the Theater 3  
DRD 141 Introduction to Theater Design 3  
DRD 251 Introduction to Stage Management 3  
DRD 140 Introduction to Theater Crafts 3  
Academic Elective 3  
WRT 105 Writing Studio 1 3

18

First Year, Spring Semester

DRA 090 Theater Laboratory 0  
DRA 116 Introduction to the Theater II 3  
DRD 142 Introduction to Theater Design II 3  
DRD 240 Introduction to Theater Crafts II 3  
DRD 112 Drafting for the Theater 3  
WRT 205 Writing Studio 2 3  
Academic Elective 3  
18

Sophomore Year, Fall Semester  
DRA 090 Theater Laboratory 0  
DRA 355 Development of Theater & Drama I 3  
DRD 340 Stage Management Rehearsal Techniques 2  
DRA 105 Introduction to Acting 3  
DRD 331 Stage Lighting I 3  
Technical Practicum #1 2  
Academic Elective 3  
16

Sophomore Year, Spring Semester  
DRA 090 Theater Laboratory 0  
DRA 356 Development of Theater & Drama I 3  
DRD 460 Stage Management for Production 2  
DRD 541 Projects in Technical Practice 3  
DRD 450 Stage Management  
Performance Techniques 3  
Technical Practicum #2 2  
Academic Elective 3  
16

Junior Year, Fall Semester  
DRA 090 Theater Laboratory 0  
DRA 315 Play Analysis and Introduction to  
Mise-en-Scene 3  
DRD 492 Production Management 3  
Technical Practicum #3 2  
Drama Elective 2  
Drama literature 3  
Academic Elective 3  
16

Junior Year, Spring Semester  
DRA 090 Theater Laboratory 0  
DRD 460 Stage Management for Production 4  
DRA 491 Theater Management 3  
Drama Elective 3  
Academic Electives 6  
16

Senior Year, Fall Semester  
DRA 090 Theater Laboratory 0  
DRD 460 Stage Management for Production 4  
DRA 331 Introduction to Directing 3  
Technical Practicum #4 2  
Academic Elective 3  
12

Senior Year, Spring Semester  
DRD 599 Internship 6  
Drama Elective 3  
DRD 542 Projects in Technical Practice: Touring 3  
12

Total Credits: 124

# Strings

Strings (Performance) – B.Mus.

Contact: Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

Faculty: Deette Bunn, Edward Castilano, Eric Gustafson, Kenneth Meyer, Harumi Rhodes, Karen Veverka, Greg Wood

The performance program leads to the B.Mus. degree and stresses the development of technical skills, repertory, poise, and overall musicianship. Since most performers continue study beyond the bachelor's degree, the program also provides a sound basis for advanced study. To reflect preparation for upper-division recital(s), upper-division credits in the principal performance area increase from 2 to 4 credits per hour of instruction.

## MAJOR REQUIREMENTS

First Year, Fall Semester

Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 145 Diatonic Harmony I 3  
MTC 147 Ear Training I 1  
MHL 168 History of European Music Before 1750 3  
Large Ensemble 1  
WRT 105 Writing Studio 1 3  
Area Specialization/Academic 1-3  
Total Credits: 15-17

First Year, Spring Semester

Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 146 Diatonic Harmony II 3  
MTC 148 Ear Training II 1  
MTC 267 History of European Music from 1750-1914 3  
Large Ensemble 1  
WRT 205 Writing Studio 2 3  
Area Specialization/Academic 1-3  
Total Credits: 15-17

Sophomore Year, Fall Semester

Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 245 Chromatic Harmony I 3  
MTC 247 Ear Training III 1  
MHL 268 European and American Music Since 1914 3  
Large Ensemble 1  
Foreign Language 4  
Academic Elective 2  
Total Credits: 17

Sophomore Year, Spring Semester

Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 246 Chromatic Harmony II 3  
MTC 248 Ear Training IV 1  
MHL 185 Introduction to World Music 3  
Large Ensemble 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3  
Total Credits: 17

Junior Year, Fall Semester

Weekly Student Convocation 0  
Principal Performance Area 4  
MTC 545 Counterpoint 3

CTG 545 Basic Conducting 2  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 2-3  
Total Credits: 16-17

Junior Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area/Recital 4  
MTC 546 Analysis of 20th-Century Music 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Senior Year, Fall Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
500-Level Elective In Music History and Literature 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Senior Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
MHL Elective 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Total Minimum Credits: 126

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## Theater Design & Technology

Contact: Department of Drama, 820 East Genesee Street, 315-443-2669

Faculty Felix Cochren, Alex Koziara, Maria Marrero:

The Bachelor of Fine Arts in Theater Design and Technology is conducted within a stimulating environment that combines both classroom and hands-on learning experiences. The 130-credit curriculum stresses building a firm foundation in the arts and the humanities as well as in the applied aspects and crafts of the theater. In the first year, in addition to their theater courses, theater design and technology majors participate in the foundation program in the School of Art and Design to enhance their drawing skills. They also are an integral part of Drama Department productions as members of backstage crews and as assistants to designers. This interaction between theory and practice is an essential part of developing an educated, creative theater person.

Advanced students design many Department of Drama main-stage productions and work with the professional staff and company of Syracuse Stage. Seniors in the program are eligible for internships with Syracuse Stage.

Students interested in design may specialize in one or more areas: set design, costume design, and lighting design. Courses in studio art, art and architectural history, and costume history contribute to developing conceptual design skills. The theater design and technology program also offers training in the use of computers as design tools. Facilities include two design studios, a LightBox and a CAD lab in addition to the technical shops shared with Syracuse Stage.

B.F.A. students interested in the technical aspects of theater may specialize in scene construction and painting, lighting, properties, or costumes, in consultation with a faculty advisor.

The B.F.A. program requires 130 credits and is appropriate for students interested in a career in the fields of entertainment design or technology. An in-person or telephone interview with a faculty member is required for admission. A portfolio submission is required.

Students wishing to explore a curriculum that combines theater design and technology with a broader liberal arts content may apply for the 120-credit B.S. degree in drama, with a technical theater emphasis, provided they have been admitted to and have completed a portion of the B.F.A.

## B.F.A. THEATER DESIGN & TECHNOLOGY DEGREE REQUIREMENTS

Please note that distribution and order of academic requirements/electives will be determined in consultation with the student's faculty advisor.

### First Year, Fall Semester

DRA 090 Theater Laboratory 0  
DRA 115 Introduction to the Theater 3  
DRD 141 Introduction to Theater Design 3  
WRT 105 Writing Studio I 3  
DRD 111 Media, Methods, and Materials 3  
FND 113 Drawing 3  
DRD 140 Introduction to Theater Crafts I 3  
18

### First Year, Spring Semester

DRA 090 Theater Laboratory 0  
DRA 116 Introduction to the Theater II 3  
DRD 112 Drafting for the Theater 3  
DRD 142 Introduction to Theater Design II 3  
DRD 240 Introduction to Theater Crafts II 3  
FND Drawing Elective 3  
WRT 205 Writing Studio 2 3  
18

Please note that the sequence of courses has changed in the first year. DRD 111 will be required in the first semester and DRD 112 will move to the second semester.

### Sophomore Year, Fall Semester

DRA 090 Theater Laboratory 0  
DRA 355 Development of Theater & Drama I 3  
Level I Design\* 3  
Level I Design\* 3  
Technical Support 3  
DRD 270 Experience credit 1  
FDN/DRD Studio Elective 3  
16

### Sophomore Year, Spring Semester

DRA 090 Theater Laboratory 0  
DRA 356 Development of Theater & Drama II 3  
Level II Design\* 3  
Level II Design\* 3  
Theater Practicum 2  
Academic Elective 3  
DRD 270 Experience credit 2  
16

### Junior Year, Fall Semester

DRA 090 Theater Laboratory 0  
DRA 315 Play Analysis and Introduction  
to Mise-en-Scène 3  
DRD 470 Experience credit 3  
Level I Design\* 3  
Theater Practicum 2  
Art History Elective 3  
Academic Elective 3  
17

### Junior Year, Spring Semester

DRA 090 Theater Laboratory 0  
DRA 331 Introduction to Directing 3  
Level III Design\* 3  
Drama Elective 3  
Theater Practicum 2  
Art History Elective 3  
Academic Elective 3  
17

Senior Year, Fall Semester  
 DRA 090 Theater Laboratory 0  
 DRD 470 Experience credit 2  
 Drama Literature 3  
 Drama Elective 3  
 DRA 105 Introduction to Acting 3  
 Academic Elective 3  
 14  
 Senior Year, Spring Semester  
 DRD 470 Experience credit 2  
 Drama Electives 6  
 Academic Elective 6  
 14  
 Total Credits: 130

\* Courses with an asterisk may be taken in sequence appropriate to area of design focus.

## Visual Culture Minor

Faculty Member: Anne Demo, 118C Shaffer Art Building, 315-443-1032, [ademo@syr.edu](mailto:ademo@syr.edu)

<http://vpa.syr.edu/crs/minors/visual-culture>

The minor in Visual Culture exploits one of the unique strengths of Syracuse University: a world class arts school in the midst of a research institution. The minor is an interdisciplinary program sponsored by the following units: The School of Art and Design and Communication and Rhetorical Studies. The minor consists of 18 credits and functions as an academically-based minor that is intended to complement the studio-based majors in the College of Visual and Performing Arts and provide non-studio based majors a concentration in visual culture and criticism that is theoretically and historically informed. The minor is open to all Syracuse University undergraduates.

The Visual Culture minor provides students with the critical skills necessary to address the evolving intersection of art, design, and communication in a variety of contexts including the art world, consumer culture, politics, and popular culture. Drawing on the diversity of disciplinary approaches to visual culture, the minor fosters critical engagement with diverse modes of visual expression and communication, from advertising design and image activism to material culture and public sculpture.

The Visual Culture minor equips students with an interdisciplinary conceptual framework that will illuminate (1) the diverse sensory modes (i.e. verbal, aural, tactile, etc.) that inform and interact with visual expression; (2) the various institutional frameworks that shape the production, circulation, and reception of visual culture (from the nineteenth century forward); and (3) the historical and cultural contexts that normalize particular viewing practices and social formations.

By the completion of the minor, students will be adept in interdisciplinary viewing practices, familiar with diverse critical approaches to visual meaning, and an effective in communicating complex visual ideas.

The Visual Culture minor should be of interest to students who seek a program that focuses on visual culture as the nexus of creative practice, advocacy, and criticism.

### ADMISSION REQUIREMENTS:

3.0 GPA (based on the completion of 30 credits). Must enter program no later than the first semester of junior year. Limited to 30 students initially. Applications accepted at any time, but will adhere to October 15 deadline for processing and approval in the Fall semester (March 1st for Spring semester).

Curriculum Worksheet: [http://vpa.syr.edu/sites/default/files/downloads/VCM%20Course%20Schedule%20\(2\).pdf](http://vpa.syr.edu/sites/default/files/downloads/VCM%20Course%20Schedule%20(2).pdf)

REQ Intro to Visual Culture	ART/CRS/TRM 316	3
REQ Modern Art Media*		3
REQ Design History and Material Culture*		3
REQ Art History, Theory and Criticism*		3
ELEC **		3
ELEC**		3
TOTAL CREDITS		18

Voice (Performance) – B.Mus.

Contact: Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

Faculty: Janet Brown, Jonathan English, Nancy James, Eric Johnson, Julie McKinstry, Donna Miller, Kathleen Roland-Silverstein, Julianna Sabol, Patricia Thompson-Buechner, Carolyn Weber

The performance program leads to the B.Mus. degree and stresses the development of technical skills, repertory, poise, and overall musicianship. Since most performers continue study beyond the bachelor's degree, the program also provides a sound basis for advanced study. To reflect preparation for upper-division recital(s), upper-division credits in the principal performance area increase from 2 to 4 credits per hour of instruction.

#### MAJOR REQUIREMENTS

First Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 145 Diatonic Harmony I 3

MTC 147 Ear Training I 1

MHL 168 History of European Music Before 1750 3

Large Ensemble 1

WRT 105 Writing Studio 1 3

Area Specialization/Academic 1-3

Total Credits: 15-17

First Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 146 Diatonic Harmony II 3

MTC 148 Ear Training II 1

MTC 267 History of European Music from 1750-1914 3

Large Ensemble 1

WRT 205 Writing Studio 2 3

Area Specialization/Academic 1-3

Total Credits: 15-17

Sophomore Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 245 Chromatic Harmony I 3

MTC 247 Ear Training III 1

MHL 268 European and American Music Since 1914 3

Large Ensemble 1

Foreign Language 4

Academic Elective 2

Total Credits: 17

Sophomore Year, Spring Semester

Weekly Student Convocation 0

Principal Performance Area 2

Secondary Performance Area 1

MTC 246 Chromatic Harmony II 3

MTC 248 Ear Training IV 1

MHL 185 Introduction to World Music 3

Large Ensemble 1

Academic Elective 3

Area Specialization/Music Elective(S) 3

Total Credits: 17

Junior Year, Fall Semester

Weekly Student Convocation 0

Principal Performance Area 4

MTC 545 Counterpoint 3

CTG 545 Basic Conducting 2

Large Ensemble 1

Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 2-3  
Total Credits: 16-17

Junior Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area/Recital 4  
MTC 546 Analysis of 20th-Century Music 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Senior Year, Fall Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
500-Level Elective In Music History and Literature 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Senior Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
MHL Elective 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Total Minimum Credits: 126

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## Wind Instruments

Wind Instruments (Performance) – B.Mus.

Contact: Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

Faculty: Cornelia Brewster, Ronald L. Caravan, Jill Coggiola, Michael Coldren, Kelly Covert, Dana DiGennaro, Gabriel DiMartino, Jon Garland, William Harris, Christopher Jabot, Alina Plourde, Gregory Quick, John Raschella, Jeffrey Stockham

The performance program leads to the B.Mus. degree and stresses the development of technical skills, repertory, poise, and overall musicianship. Since most performers continue study beyond the bachelor's degree, the program also provides a sound basis for advanced study. To reflect preparation for upper-division recital(s), upper-division credits in the principal performance area increase from 2 to 4 credits per hour of instruction.

### MAJOR REQUIREMENTS

First Year, Fall Semester  
Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 145 Diatonic Harmony I 3  
MTC 147 Ear Training I 1  
MHL 168 History of European Music Before 1750 3  
Large Ensemble 1  
WRT 105 Writing Studio 1 3  
Area Specialization/Academic 1-3  
Total Credits: 15-17

First Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 146 Diatonic Harmony II 3  
MTC 148 Ear Training II 1  
MTC 267 History of European Music from 1750-1914 3  
Large Ensemble 1  
WRT 205 Writing Studio 2 3  
Area Specialization/Academic 1-3  
Total Credits: 15-17

Sophomore Year, Fall Semester  
Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 245 Chromatic Harmony I 3  
MTC 247 Ear Training III 1  
MHL 268 European and American Music Since 1914 3  
Large Ensemble 1  
Foreign Language 4  
Academic Elective 2  
Total Credits: 17

Sophomore Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area 2  
Secondary Performance Area 1  
MTC 246 Chromatic Harmony II 3  
MTC 248 Ear Training IV 1  
MHL 185 Introduction to World Music 3  
Large Ensemble 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3  
Total Credits: 17

Junior Year, Fall Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
MTC 545 Counterpoint 3  
CTG 545 Basic Conducting 2  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 2-3  
Total Credits: 16-17

Junior Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area/Recital 4  
MTC 546 Analysis of 20th-Century Music 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Senior Year, Fall Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
500-Level Elective In Music History and Literature 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Senior Year, Spring Semester  
Weekly Student Convocation 0  
Principal Performance Area 4  
MHL Elective 3  
Large Ensemble 1  
Small Ensemble/Coaching 1  
Academic Elective 3  
Area Specialization/Music Elective(S) 3-5  
Total Credits: 15-17

Total Minimum Credits: 126

# Courses

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## Advertising Design

### ADD 241 Advertising Principles 3 Y

The study and practice of the tenets common to award winning advertising.

### ADD 242 Strategy in Advertising 3 Y

Process involved in developing advertisements from a concise marketing strategy.

PREREQ: ADD 241.

### ADD 281 Advertising Design Methods 3 Y

Introduces design principles and production techniques, emphasizing visual, digital, and intellectual skills for the communication of ideas and their translation into print.

PREREQ: FND 113 AND 115; COREQ: ADD 241.

### ADD 282 Advertising Design Skills and Processes 3 Y

Further the use of Macintosh technology and software as design and production tools for print media.

PREREQ: ADD 281; COREQ: ADD 242.

### ADD 341 Advertising Campaigns 3 Y

Recognition and implementation of the "big" idea as the basis of print advertising campaigns.

PREREQ: ADD 242.

### ADD 342 Advertising Problem Solving 3 Y

Development of sound rationales for creation of advertising campaigns. Research, target audience identification, problem definition, and design.

PREREQ: ADD 341.

### ADD 440 Ad Design Research Problems 3 Y

Individual development in specialized areas of advertising design.

PREREQ: ADD 441. R1, 6 credits maximum

### ADD 441 Campaign Refinement 3 Y

The refinement of campaign concepts and their finished execution.

PREREQ: ADD 341.

### ADD 442 Final Portfolio 3 Y

Final execution of campaigns, resumes, and self-promotion pieces.

PREREQ: ADD 441.

### ADD 443 Television Concepts 3 Y

Creating and developing distinctive TV concepts from the marriage of words, pictures, and motion.

PREREQ: ADD 341.

### ADD 444 TV Commercial Production 3 Y

Double Numbered with: ADD 644

Video techniques in the production of advertising commercials. Major emphasis on computer video editing. Introduction to camera work and sound.

PREREQ: ADD 443. R1, 3 credits maximum

### ADD 453 Communication Arts/London 3 IR

Illustration and design through visits to studios, publishers, museums, and presentations with visiting professionals. Major design/illustration semester project. Offered only in London.

### ADD 454 Communication Arts/London 3 IR

Illustration and design through visits to studios, publishers, museums, and presentations with visiting professionals. Major design/illustration semester project. Offered only in London.

### ADD 499 Honors Capstone Project 1-3 S

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### ADD 540 Offset Printing 3 IR

A basic course covering the theory and practice of preparing camera-ready art for printing plate-making, and printing by offset lithography.

PREREQ: CMD 281.

## Art Education

### AED 211 The Creative Classroom:

Reexamining School Art Misconceptions Through Studio Inquiry 3 Y

A studio art course that disrupts misconceptions about the relevance of the arts and design practices in education through arts-based inquiry.

### AED 300 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### AED 317 Philosophy & Foundations of Art Education Practice 3 Y

Double Numbered with: AED 617

Historical trends and philosophies of diverse art education practices and the growth of American public education. Includes field observations, interface with cultural institutions, cultivation of professional affiliations, and the development of a beginning teaching philosophy.

### AED 470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Student must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### AED 499 Honors Capstone Project 1-3 S

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### AED 510 Special Problems in Art Ed 1-6 Y

Individual study of particular problems in art education which are of pertinence to the student. Counseling and consent of the instructor determine the area of study.

### AED 521 Art-Centered Art Curriculum 3 IR

Ten approaches to writing art curricula: referential, chronological, stylistic, topical, special interest, specific artist, collection-related, integrating, multidisciplinary, enrichment. Development of classroom material for specific levels or particular audiences. For senior and graduate art majors.

### AED 522 Art for Special Populations 3 IR

Effective personal communication through art. Choose and define a special population; examine and generate appropriate research; develop adaptive strategies, curriculum, and evaluation procedures appropriate for classroom use. For senior and graduate art majors.

### AED 524 Visual Language 3 IR

Visual language as catalyst for interdisciplinary experiences in art, math, science, and social studies. Visualization, determination of essential features, methods of teaching surrogate and relational form. Curriculum for specific grades or particular audiences. For senior and graduate art majors.

### AED 525 Exploration & Meaning in Art 3 IR

Using phenomenological encounter techniques, symbol interpretation, and consideration of cultural context, students learn to argue a point of view and develop methods of critical judgment in their students. For senior and graduate art majors

### AED 584 Cultural Knowledge, Identity, and Postmodern Art Education 3 Y

A course providing a safe space for arts educators and teaching artists to reconceptualize their language, attitudes, and approaches toward viewing, learning, and teaching the visual arts to diverse students in a global postmodern society.

## Applied Music

### AMC 525 Keyboard Skills 2 SI

Sight reading. Score reading. Transposition. Basic ensemble techniques. Two-piano and four-hand repertoire emphasized. Permission of instructor.

### AMC 526 Technq of Accompaniment 2 SI

Case studies in collaborative repertoire with strings, winds, and voice. Ensemble techniques: leading, following, balance. Performance of orchestral material from score and reduction: opera, concertos.

PREREQ: AMC 525.

### AMC 540 Opera Workshop 0-1 S

Primarily for students in voice. Experience in conducting, coaching, accompanying, acting, directing, and stage management in the preparation and presentation of operas. Scenes from various operas and one full-length opera. R

### AMC 545 Diction in Singing 2 Y

Basic phonetics (International Phonetic Alphabet). Enunciation in the foreign languages most frequently encountered in vocal and choral literature (Italian, French, German, and Latin). English diction in singing. Additional work required for graduate credit.

### AMC 546 Diction in Singing 2 Y

Basic phonetics (International Phonetic Alphabet). Enunciation in the foreign languages most frequently encountered in vocal and choral literature (Italian, French, German, and Latin). English diction in singing. Additional work required for graduate credit.

### AMC 547 Advanced Diction for Singers 2 Y

The unique sounds of French, German, Italian, English, Russian and Spanish are explored through class performances along with review of the International Phonetic Alphabet. PREREQ: AMC 546.

## Art Photography

### APH 242 Art Photography Intro II 3 S

In-depth study of color photographic techniques. Processing, printing, and historical and contemporary models.

### APH 243 Digital Imaging for Art Photo 3 S

Art Photography students explore the applications of digital and electronic photography as an art form. Using their own scanned photographs and digital camera images, students will utilize the computer to construct new art work.

### APH 261 Art Photography, Introduction 3 S

Introduction to analog and digital photography, beginning with 35 mm camera basics, film processing and printing. Correlating digital processes (basic film scanning, etc.) will be taught alongside their analog counterparts.

### APH 262 Art Photography Introduction II 3 S

In-depth study of analog and digital photographic techniques. Printing and output from digital and film sources, color control and calibration. use of flash and simple lighting techniques.

### APH 263 Art Photography:Advanced Digital Imaging 3 Y

Designed to give students the skills to employ the latest techniques in digital imaging. Topics covered include: digital workflow, advanced color corrections, compositing techniques, color management and color profiling. PREREQ: APH 261 AND 262.

### APH 340 Topics in Art Photography 3 S

Topics selected before registration by the department and specified in the time schedule. R

### APH 341 Art Photography Intermediate 3 Y

Development of a personal style and an extended body of work. Use of contemporary and historical models to explore technical, critical, and aesthetic issues.

### APH 342 Art Photography IntermediateII 3 Y

Continuation of APH 341. Presentations, issues, and assignments based on the work of contemporary and historical photographic artists to explore the visual issues raised by these artists.

### APH 361 Lighting for Photography 3 S

Lighting techniques for the photography studio and on location. Students use digital, medium and large format cameras on group and individual assignments. Critical study of the interaction between fashion, cinema and fine art photography. PREREQ: APH 263.

### APH 362 Art Photography Junior Seminar 3 Y

Wide range of contemporary photographic practices. Students are encouraged to experiment with assignments that address specific conceptual issues, such as how artists formulate their self-identity, inspiration and attitude.

PREREQ: APH 361.

### APH 461 Art Photography:BFA Senior Seminar 3 Y

Students propose and develop their own projects which will be reviewed in individual and group critiques. Working closely with faculty, students, utilize technical, conceptual, and visual tools to evaluate and expand their own work. Preq: APH 362

PREREQ: APH 362.

### APH 462 Art Photography: BFA Exhibition and Portfolio 3 Y

Students refine their own projects which will be reviewed in individual and group critiques. Development of skills to create a professional quality exhibition, portfolio, and artist presentation.

PREREQ: APH 461.

APH 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

### APH 561 Art Photography: Contemporary Art and Photography 3 Y

Contemporary artists working with photographic images are studied through slides, readings, lectures, and discussions.

### APH 562 Art Photography: Contemporary Critical & Theoretical Texts on Art & Photography 3 Y

Recent and contemporary critical theories and applications studied through readings, lectures, and discussion. Emphasis on student research papers.

### APH 563 Art Photography: Non-Traditional Modes 3 Y

Exploring the possibilities and reasons for producing work outside the parameters of traditional practice, looking at artists whose work co-opts, challenges and eschews the gallery system, using those artists as models for their own production.

PREREQ: APH 261 AND 262.

APH 564 Image/Sequence: Photo Book 3 Y

Theoretical and critical discussion of photographs in series, sequences and books. Software for editing and layout introduced to produce photo-based artist books. Specific attention paid to how the photo-book expands the meaning of individual images.  
PREREQ: APH 261 AND 262.

APH 565 Art Photography: Performance Art 3 Y

This course introduces the concepts, techniques, and variations of performance art. Special emphasis on performances made expressly for the camera will be considered. Many examples of performance art are analyzed.  
PREREQ: APH 261 AND 262.

APH 566 Art Photography: Photography and Cinema 3 Y

Students explore the interplay between contemporary photography and cinema. By constructing sets, scouting locations, studying images and films, and appropriating cinematic language, students will create photographic works influenced by moving images.  
PREREQ: APH 261 AND 262.

## Art

ART 101 First Year Colloquium 1

A variety of art and design topics including all major areas in School of Art and Design. Lectures and discussions with visiting artists, alumni, and faculty; presentations on current issues in the field.

ART 105 Color & Light 3 Y

Physical and psychological aspects of light and color. Systems of color classification. Application to the artist's usage.

ART 111 History of Modern Art: 1850-Present 3 Y

Art from 1900 to present. Lectures, readings, discussion, and written assignments develop visual literacy, critical and communication skills integral to understanding art within its historical, social, and cultural context.

ART 112 Special Topics in History of Art 3 Y

Selected themes and issues that connect art from the earliest times to the present. School of Art and Design student. R

ART 113 History of Modern Design: 1850-Present 3 Y

Lectures, readings, discussion, and written assignments develop visual literacy, critical, and communication skills integral to understanding design within its historical, social, and cultural context.

ART 114 Special Topics in History of Design 3 Y

Selected themes and issues that connect design from the earliest time to the present. School of Art and Design student. R

ART 202 Contemporary Issues in Design 3 Y

Crosslisted with: DES 202  
Overviews contemporary issues and trends in 21st century design.

ART 205 History of Textiles 3 IR

Development of textile design and construction. Lecture and research.

ART 207 History of Ceramics 3 SI

Forms of ceramic design and techniques that appear throughout history. Their relation to contemporary production.

ART 250 Filmmaking: Cinematic Modes 3 S

Topics will focus around codes and forms that work at the mainstream and borders of cinematic production. R

ART 251 Intro to Art Media 3 Y

Basic course in media aesthetics on the role of photographic and electronic media. Provides a context for discussion of contemporary art media.

ART 253 Survey of Film History 3 Y

Growth of film from its origin. Technical, economic, and social influence on cinema; development of film as an art.

ART 300 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ART 310 Picasso and the Modern Movement: Critical Approaches to Modern Art 3

Introduction to important periods in Picasso's life, key modern art movements and theories, and specific objects across a variety of media, and situate these within an appropriate historical and art historical context. This course will also use Picasso as a case study for examining various methodologies employed in analyzing the visual arts.  
PREREQ: ART 111 OR 113 OR HOA 106.

ART 311 Aesthetics 3 IR

Major classical and contemporary issues in the philosophy of art including definitions of art, representation, style, signs and meaning, social theories of art and recent developments in art theory.

ART 314 History of the Bauhaus: Studies in Material Culture 3

An overview of the Bauhaus, its important personalities, and its contribution to the development of twentieth-century design and architecture.

PREREQ: ART 111 OR 113 OR HOA 106.

ART 316 Introduction to Visual Culture 3

Crosslisted with: CRS 316, TRM 316  
Introduction to critical approaches that illuminate how modes of visual culture function as rhetoric, commerce, art, and ideological expression. Examines how institutional frameworks shape global image circulation.

ART 340 Visiting Artist Lecture Series 1 S

Double Numbered with: ART 640  
Contemporary artists and art educators with significant national and international exhibition and publishing records talk about their work and its development, including art-historical and other inter-disciplinary connections. Additional work required of graduate students. R5, 6 credits maximum

ART 361 Studio Symposium 3 S

Double Numbered with: ART 561  
Seminar discussions from artist's point of view on issues, theories, criticism in contemporary art. Visiting artists, critics, faculty participation. Reading and paper required. Individual research in conjunction with course expectations for students taking ART 561.

ART 406 Advanced Color & Light 3 SI

Lecture/studio. Principles of color and light. Recent color theories and systems applicable to visual arts.

ART 410 Topics in the History of Art 3 Y

Double Numbered with: ART 610  
A seminar in the history of and theory of the visual arts from ancient times to the present. Topics vary. Discussions incorporate current theory, recent scholarship, and problems addressed in contemporary art. Additional work required of graduate students. R1, 6 credits maximum

ART 431 Art Nouveau Design and Architecture: Studies in Material Culture 4

Double Numbered with: ART 631

Introduction to the historical and social context that gave rise to Art Nouveau, its various manifestations, and the important practitioners and promoters of this movement in Europe and the United States.

PREREQ: (ART 111 OR HOA 106) AND ART 113.

ART 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ART 500 Selected Topics 1-3 SI

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

ART 511 Aesthetics, Advanced 3 SI

An examination of the main theories of art, classical and contemporary.

ART 531 Professional Practices in Visual Arts 3 Y

Prepare students to function in professional context by understanding professional interactions, possibilities they have to choose from, what questions to ask and what might be expected of them. Skills fundamental to the working artist.

ART 553 Decoding Images of Representation 3 Y

This course examines significant themes and issues in contemporary theory and criticism as they impact the ways in which art is produced, viewed and written today.

ART 561 Studio Symposium 3 S

Double Numbered with: ART 361

Seminar discussions from artist's point of view on issues, theories, criticism in contemporary art. Visiting artists, critics, faculty participation. Reading and paper required. Individual research in conjunction with course expectations for students taking ART 561.

ART 563 Art in America I 3 Y

Evolution of modernist trends in American art from 1890 to 1945. Some music and literary trends also featured.

ART 564 Art in America II 3 Y

Continuation of ART 563. Covers period in American art from 1945 to 1975. Music and literature also covered.

PREREQ: ART 563.

## Bassoon

BSN 160 Bassoon/Non Music Majors 1-4 S  
For non-music students.

BSN 165 Bassoon/Music Majors 1-4 S  
For music students.

BSN 166 Bassoon/Music Majors 1-4 S  
For music students.

BSN 260 Bassoon/Non Music Majors 1-4 S  
For non-music students.

BSN 265 Bassoon/Music Majors 1-4 S  
For music students.

BSN 266 Bassoon/Music Majors 1-4 S  
For music students.

BSN 360 Bassoon/Non Music Majors 1-4 S  
For non-music students. R1, 8 credits maximum

BSN 365 Bassoon/Music Majors 1-4 S  
For music students.

BSN 366 Bassoon/Music Majors 1-4 S  
For music students.

BSN 369 Bassoon/Perform Honors 1-4 S

BSN 460 Bassoon/Non Music Majors 1-4 S  
For non-music students.

BSN 465 Bassoon/Music Majors 1-4 S  
For music students.

BSN 466 Bassoon/Music Majors 1-4 S  
For music students.

BSN 469 Bassoon/Perform Honors 1-4 S

BSN 560 Bassoon/Non Music Majors 1-4 S  
For non-music students.

BSN 565 Bassoon/Music Majors 1-4 S  
For music students.

BSN 566 Bassoon/Music Majors 1-4 S  
For music students.

## Tuba

BTB 150 Tuba/Non Music Majors 1-4 S  
For non-music students.

BTB 155 Tuba/Music Majors 1-4 S  
For music students.

BTB 156 Tuba/Music Majors 1-4 S  
For music students.

BTB 250 Tuba/Non Music Majors 1-4 S  
For non-music students.

BTB 255 Tuba/Music Majors 1-4 S  
For music students.

BTB 256 Tuba/Music Majors 1-4 S  
For music students.

BTB 350 Tuba/Non Music Majors 1-4 S  
For non-music students.

BTB 355 Tuba/Music Majors 1-4 S  
For music students.

BTB 356 Tuba/Music Majors 1-4 S  
For music students.

BTB 359 Tuba/Perform Honors 1-4 S

BTB 450 Tuba/Non Music Majors 1-4 S  
For non-music students.

BTB 455 Tuba/Music Majors 1-4 S  
For music students.

BTB 456 Tuba/Music Majors 1-4 S  
For music students.

BTB 459 Tuba/Perform Honors 1-4 S

BTB 550 Tuba/Non Music Majors 1-4 S  
For non-music students.

BTB 555 Tuba/Music Majors 1-4 S  
For music students.

BTB 556 Tuba/Music Majors 1-4 S  
For music students.

## Computer Art

CAR 101 Introduction to 3D Animation and Visual Effects 3 Y

The first course in this three course series focuses on concepts, aesthetics, and practice of 3D animation and visual effects. This course is an introduction to modeling, texturing, digital-sculpting and shading.

CAR 111 Introduction to Programming for Visual and Networked Art 3 Y

An introductory course that combines the programming/scripting of digital art projects with thinking about software, interactive digital art, and digital culture.

CAR 120 Experimental Animation 3 Y

Introductory studio course explores animation through the use of various processes. Students will experiment with claymation, collage/cut paper, direct drawing, and stop motion. Emphasis on use of conventional materials and approaches.

CAR 131 Introduction to Multimedia 3 S

The fundamentals for making art with computers in consideration of time and interactivity. The fundamentals of using programming and software applications for multimedia and the internet.

### CAR 201 Intermediate 3D Animation and Visual Effects 3 Y

The second course in this three course series focuses on concepts, aesthetics, and practice of 3D animation and visual effects. This course will be an introduction to keyframe, procedural and character animation.  
PREREQ: CAR 101.

### CAR 211 Introduction to Electronics and electronic Object Making for Art 3 Y

An introductory level physical computing class. The course covers electrical and mechanical engineering techniques for the purpose of art and cultural production.

### CAR 230 Topics in Computer Gaming I 3 Y

Exploring computer gaming topics assigned at the outset of the semester. Topics may include mobile gaming, pervasive gaming, self-made alternative game controllers for existing games, or 3D gaming.  
PREREQ: CAR 111.

### CAR 233 2D Computer Gaming 3 Y

Introduction to various software techniques and programming concepts that are central to creating computer games in 2D environments. Experimental practices and critical theory associated with this field will supplement the practical lessons.

### CAR 240 Multimedia Programming 3

Techniques for creating procedural, data-driven, and interactive visuals, as well as cultural issues regarding the nature of online communication. May not be repeated for credit.  
PREREQ: CAR 111.

### CAR 241 Audio Production and Recording I 3 Y

The course will focus on digital audio production in the media arts. Emphasis on the relationship between sound and image. Topics include studio recording, field recording, microphone and mixing techniques.

### CAR 270 Experience Credit 1-6

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

### CAR 301 Advanced 3D Animation and Visual Effects 3 Y

The third course in this three course series focuses on concepts, aesthetics, and practice of 3D animation and visual effects. This course will be an introduction to lighting, rendering, and effects (hair, cloth, and dynamics).  
PREREQ: CAR 201.

### CAR 302 Previz and Character Development for Animation 3 IR

This course will get you inside your animation and game characters. Who are they? Where did they come from? Why are they holding that chainsaw?

### CAR 330 Topics in Computer Gaming II 3 SI

This course focuses on ambitious gaming projects in a collaborative environment. Students will work in groups to design, develop, and implement a computer game. Platform and delivery format will vary  
PREREQ: CAR 230.

### CAR 340 Computer Gaming 3

Techniques for creating computer games. Explores gaming theory, strategy, and aesthetics. May not be repeated for credit.  
PREREQ: CAR 240.

### CAR 341 Audio Production and Recording II 3 SI

This course will build on the foundation of CAR 241. Includes advanced sound mix, mastering, installation and delivery formats, and advanced wave form synthesis.  
PREREQ: CAR 241.

### CAR 401 Animation Workshop I 3 Y

Integrate skills and knowledge gained in the first three animation courses into full-on, industry-style production. You will work collaboratively on ambitious projects, participating in every aspect of production of an animated short film.  
PREREQ: CAR 301.

### CAR 402 Visual Effects Workshop I 3 Y

A focus on the prospect of integrating the 2D and 3D worlds within the context of contemporary visual effects, while developing clear professional based workflows to be implemented in future creative art practice.

### CAR 415 History of Animation 3 IR

Viewing, discussing, writing and reading about examples from many periods foster a context for contemporary practice in this dynamic medium.

### CAR 430 Computer Art Seminar 3

Students will propose and complete a major individual or collaborative studio project.  
PREREQ: SENIOR LEVEL. R1, 9 credits maximum

### CAR 432 Senior Project 3 Y

To focus the best creative and intellectual resources in the realization of the senior project and portfolio. Pursue areas of personal interest and to explore new ideas in the realization of their artistic goals.  
PREREQ: CAR 430 AND SENIOR LEVEL.

### CAR 499 Honors Capstone Project 1-3 S

Completion of an Honors Capstone Project under the supervision of a faculty member R2, 3 credits maximum

### CAR 501 Animation Workshop II 3 Y

Building on the collaborative animation experience from the first semester of the animation workshop, students step into supervisor roles helping to manage all aspects of the production of an animated short film.  
PREREQ: CAR 401.

### CAR 502 Visual Effects Workshop II 3 Y

Building on the collaborative VFX experience from the first semester of the VFX workshop, students step into supervisor roles helping to manage all aspects of the production team(s) workflow.  
PREREQ: CAR 402.

### CAR 520 Topics in Electronic Environments 3 IR

A practical, project-based exploration of computer art that happens across computational devices, platforms, and spaces. Semester topics may include networked public spaces, audiovisual performance, mobile applications for activism.  
PREREQ: CAR 211. R1, 6 credits maximum

### CAR 530 Special Topics in Computer Art 3-12 IR

Various topics in computer graphics are explored through research, creative activity, and theoretical discussion. Topics address historical as well as contemporary issues that bridge art and technology. R

## Ceramics

### CER 220 Raku Workshop 3 S

Use of the potter's wheel and production of various basic forms. Raku decorating and glazing techniques. R

### CER 221 Introduction to Ceramics 3 S

Techniques and materials. Basic hand building. Development of personal direction.

CER 222 Introduction to Ceramics 3 S  
Continuation of CER 221. Use of potter's wheel. Experimentation with glazes and other methods of decoration. Personal direction encouraged.  
PREREQ: CER 221.

CER 223 Intro Ceramic Wheel Throwing 3 S  
Potter's wheel as a creative tool. Basic techniques and wheel-thrown forms. Experimentation with decorating techniques.

CER 224 Intro Ceramic Wheel Throwing 3 S  
Potter's wheel as a creative tool. Basic techniques and wheel-thrown forms. Experimentation with decorating techniques.  
PREREQ: CER 223.

CER 321 Intermediate Ceramic Sculpture 3 S  
Creating unique ceramic forms and developing techniques and considerations. Experimentation with forms, materials, and sculptural concepts.  
PREREQ: CER 221 AND 222.

CER 322 Intermediate Ceramic Sculpture 3 S  
Creating unique ceramic forms and developing techniques and considerations. Experimentation with forms, materials, and sculptural concepts.  
PREREQ: CER 221 AND 222.

CER 323 Intermediate Wheel Throwing 3 S  
Techniques and concepts related to the design and production of multiples of a form using the potter's wheel.  
PREREQ: CER 223 AND 224.

CER 324 Intermediate Wheel Throwing 3 S  
Techniques and concepts related to the design and production of multiples of a form using the potter's wheel.  
PREREQ: CER 223 AND 224.

CER 327 Clay & Glaze Technology 3 O  
Plaster and mold making, formulation and mixing of glazes and clay bodies. Maintenance of kilns and other studio equipment. Lecture and studio. Term paper required.  
PREREQ: CER 221 AND 223.

CER 328 Clay & Glaze Technology 3 O  
Plaster and mold making, formulation and mixing of glazes and clay bodies. Maintenance of kilns and other studio equipment. Lecture and studio. Term paper required.  
PREREQ: CER 327.

CER 421 Advanced Ceramic Sculpture 3 S  
Techniques and concepts in the sculptural possibilities of ceramics. Students complete several projects to develop related concepts and techniques.  
PREREQ: CER 321 AND 322.

CER 422 Advanced Ceramic Sculpture 3 S  
Techniques and concepts in the sculptural possibilities of ceramics. Students complete several projects to develop related concepts and techniques.  
PREREQ: CER 321 AND 322.

CER 423 Advanced Wheel Throwing 3 S  
Continuation of CER 323,324. Realistic shop situation in which records of time, kiln space, and cost of materials are kept. Work on several projects to strengthen techniques and further develop as an artist.  
PREREQ: CER 323 AND 324.

CER 424 Advanced Wheel Throwing 3 S  
Continuation of CER 323,324. Realistic shop situation in which records of time, kiln space, and cost of materials are kept. Work on several projects to strengthen techniques and further develop as an artist.  
PREREQ: CER 323 AND 324.

CER 427 Advanced Ceramic Techniques 3 O  
Application at a professional level of information acquired in CER 327, 328.  
PREREQ: CER 327 AND 328.

CER 428 Advanced Ceramic Techniques 3 O  
Application at a professional level of information acquired in CER 327,328.  
PREREQ: CER 327 AND 328.

CER 520 Raku Workshop 3 S  
Use of the Potter's wheel and production of various basic forms. Raku decorating and glazing techniques. R

CER 524 Ceramic Research 1-6 S  
Advanced research.  
PREREQ: CER 423 AND 424.

CER 527 Ceramic Technology Research 1-6 O  
Varied technical and chemical problems that are the daily concerns of the studio ceram-ist. Lectures, research, shop, laboratory practices, kiln construction, and ceramic studio maintenance.  
PREREQ: CER 428.

CER 528 Ceramic Technology Research 1-6 O  
Varied technical and chemical problems that are the daily concerns of the studio ceram-ist. Lectures, research, shop, laboratory practices, kiln construction, and ceramic studio maintenance.  
PREREQ: CER 428.

CER 529 Ceramics Workshop 1-6 SI  
Working and experimenting with clay as a medium for drawing, painting, and sculpting. Lectures, demonstrations, studio work, and student projects. Open to all students in all colleges.

## Clarinet

CLR 140 Clarinet/Non Music Majors 1-4 S  
For non-music students.

CLR 145 Clarinet/Music Majors 1-4 S  
For music students.

CLR 146 Clarinet/Music Majors 1-4 S  
For music students.

CLR 240 Clarinet/Non Music Majors 1-4 S  
For non-music students.

CLR 245 Clarinet/Music Majors 1-4 S  
For music students.

CLR 246 Clarinet/Music Majors 1-4 S  
For music students.

CLR 340 Clarinet/Non Music Majors 1-4 S  
For non-music students.

CLR 345 Clarinet/Music Majors 1-4 S  
For music students.

CLR 346 Clarinet/Music Majors 1-4 S  
For music students.

CLR 349 Clarinet/Perform Honors 1-4 S

CLR 440 Clarinet/Non Music Majors 1-4 S  
For non-music students.

CLR 445 Clarinet/Music Majors 1-4 S  
For music students.

CLR 446 Clarinet/Music Majors 1-4 S  
For music students.

CLR 449 Clarinet/Perform Honors 1-4 S

CLR 540 Clarinet/Non Music Majors 1-4 S  
For non-music students.

CLR 545 Clarinet/Music Majors 1-4 S  
For music students.

CLR 546 Clarinet/Music Majors 1-4 S  
For music students.

## Communication Design

**CMD 251 Intro Communication Design I** 3 Y

Survey of concepts, methods, techniques, and media used to solve graphic design problems. COREQ: CMD 281.

**CMD 252 Intro Communication Design II** 3 Y

Continuation of CMD 251. Emphasizes typography, layout, and three-dimensional design projects. PREREQ: CMD 251 AND 281; COREQ: CMD 282.

**CMD 270 Experience Credit 1-6 IR**

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

**CMD 281 Design Methods 3 Y**

Introduces design principles and production techniques, emphasizing visual, manual, and intellectual skills for communication of ideas and their translation through traditional methods into print. COREQ: CMD 251.

**CMD 282 Design Skills & Processes 3 Y**

Introduces Macintosh technology and software programs as design and production tools for print media. Application of tools and software to create solutions to traditional visual communications' problems. PREREQ: CMD 251 AND 281; COREQ: CMD 252.

**CMD 351 Problem Solving Strategies 3 Y**

Thinking, creativity, and communication theory as applied to design problem solving. Students encouraged to explore and develop their own personal style of thinking and overcome obstacles inhibiting creativity. PREREQ: CMD 252 AND 282; COREQ: CMD 450.

**CMD 352 Design Project Management 3 Y**

Research, planning, development, and art direction of complex, multifaceted projects. PREREQ: CMD 351 AND 450.

**CMD 450 Communication Design Problems 1-6 S**

Individual instruction in various areas of editorial design. In mixed-level groups, students develop projects according to individual interests and abilities. Strategic planning based on research and marketing principles. CMD 450 students also develop writing and presentation skills. PREREQ: CMD 252 AND 282. R

**CMD 451 Design Research 3 Y**

Research as background for solving communication design problems. Exercises and projects simulate actual professional experiences. PREREQ: CMD 351 AND 450.

**CMD 452 Portfolio & Practice 3 Y**

Career planning and portfolio preparation for the designer. PREREQ: CMD 351 AND 450.

**CMD 499 Honors Capstone Project 1-3 S**

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

**CMD 550 Communication Design Problems 1-6 S**

Individual instruction in various areas of editorial design. In mixed-level groups, students develop projects according to individual interests and abilities. Strategic planning based on research and marketing principles. CMD 450 students also develop writing and presentation skills. R

## Communication And Rhetorical Studies

**CRS 125 Law and Legal Communication 3 SS**

Introduction to basic concepts in the criminal justice system. Principles of argumentation, persuasion, and legal communication as a part of mock trial preparation.

**CRS 181 Concepts & Perspectives in Communication Studies 3 Y**

Overview of everyday interaction and extent to which content and forms of communication shape social realities. Broad introduction to field of communication.

**CRS 183 Concepts and Perspectives in Rhetorical Studies 3 Y**

History of rhetorical studies from classical antiquity to contemporary times. Explores conceptualizations and understandings which serve as a method of recognizing, analyzing, and evaluating persuasive impulses.

**CRS 225 Public Advocacy 3 S**

Principles, practice, and criticism of informative, persuasive, and ceremonial speeches. Enhances student capacity to respond appropriately to a variety of speaking situations.

**CRS 270 Experience Credit 1-6 SI**

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. 1, 6 credits maximum

**CRS 287 Foundations of Inquiry in Human Communication 3 Y**

Introduction to the various issues, arguments, positions, and concerns that frame the research methods and techniques that guide the study of communications.

**CRS 290 Independent Study 1-6 SI**

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department.

**CRS 313 Nonverbal Communication 3 Y**

Nonverbal message systems in interpersonal communication. Factors affecting the nature and quality of interaction: spatial, temporal, gestural, artifactual, tactile, and cultural.

**CRS 314 Performance Studies 3 IR**

Performance as a political project that privileges the body as a site of knowledge. The politics, implications, and possibilities of personal narratives.

**CRS 315 Frontiers of Communications 3 Y**  
Double Numbered with: CRS 615

Focus given to communication demands from new technologies. Technology as a form of rhetoric, emphasizing the role of speech communication in the future including socio-cultural implications of technology. Additional work required of graduate students.

**CRS 316 Introduction to Visual Culture 3**

Crosslisted with: ART 316, TRM 316  
Introduction to critical approaches that illuminate how modes of visual culture function as rhetoric, commerce, art, and ideological expression. Examines how institutional frameworks shape global image circulation.

CRS 317 Innovation in Communication and Rhetoric 3 Y

Double Numbered with: CRS 617

Understanding innovation as a communication and rhetorical phenomenon, and to identify how innovation emerges from different communication and rhetorical practices.

CRS 325 Presentational Speaking 3 S

Conceptual and practical dimensions of formal presentations in organizational settings. Analysis, adaptation, strategic arrangement and development of ideas, verbal and nonverbal presentational skills.

CRS 327 Speech writing 3 Y

Double Numbered with: CRS 627

Principles and practices of writing ceremonial and persuasive speeches for clients.

CRS 328 Dialogue and Experience 3 SI

Introduction to the notion of dialogue as a way of embodying the world. It highlights the various concerns, issues, and ideas that surround the evolution of dialogue.

CRS 331 Interpersonal Communication 3 Y

Application of communication theory to a wide variety of social situations. Assessing communication competence, problem solving, and relationship management.

CRS 333 Small Group Communication 3 Y

Group communication as a decision making process. Problem solving. Critical and creative thinking, presentational skills. Designed to improve decision quality through discussion skills and the strategic application of group decision theories and techniques.

CRS 334 Introduction to Argumentation 3 Y

Theoretical grounding for an argument-field approach. Includes critical understanding and use of evidence and reasoning in argument. Brief writing, cross-examination, argument construction and organization, issues analysis, and refutation and rebuttal.

CRS 335 Leadership/Stewardship Communication 3 Y

Leader-follower relations as they are constituted communicatively in partnerships. Communication competencies emphasized include empowerment, innovation, ethics, conflict, and influence.

CRS 336 Communication and Organizational Diversity 3

Diversity issues in organizations. Self reflection on assumptions about difference. Organizations and differences as communicatively constituted. PREREQ: CRS 181.

CRS 338 Communication in Organizations 3 Y

Principles and practices of organizational communication, including methods of assessing communication practices. Various communication perspectives are applied to case studies and organizational activities.

CRS 339 Communication, Space and Design 3 IR

Examination of spaces and designs as rhetorical and communication phenomena. How we organize space and, in turn, how the organization of our spaces shapes how we interact, organize, and relate to others and the world.

CRS 345 Topics in Debate 3 Y

Examines the influence of debates in political contexts. May examine presidential, legislative, judicial or public forum debates and influence of debating in political communication.

CRS 347 Mindful Communication Skills 3 Y

Develop communication skills including awareness of self-talk, anxiety/stress, listening and speaking habits, and sense of self that create and affect communication patterns. Responding rather than reacting in communication episodes.

CRS 355 Political Communication 3 Y

Investigates the relationship between communication and politics. Highlights communication-related issues involved in political processes and focuses on the extent to which communication is an essential aspect of political systems.

CRS 360 Communication and Rhetorical Studies in Perspective 3 Y

Development of theories of communication and rhetoric that enhance the understanding of their impact on human behavior. R2, 9 credits maximum

CRS 375 Rhetoric and Public Memory 3 Y

Investigates the rhetoric of public memory, or the ways that communities create and communicate knowledge of the past from one generation to the next.

CRS 377 Communication, Nature & Sustainability 3 IR

How does communication mediate the relationship between people and nature? What are the different environmental discourses and rhetorics which affect how we conceive our place in nature? Are these sustainable?

CRS 384 Discourse and Society 3 IR

This course examines how discourse and social interaction works to constitute our social realities. Topics covered: meaning, context, sequence, narrative, politeness/face, talk-in-interaction, identity, power, dialects, and various language controversies.

CRS 414 Communication & Gender 3 E

Crosslisted with: WGS 414

Exploration of assumptions under-lying different approaches to gender and communication. Gender and power implications of understanding communication as socially constructing identity and societal structures.

CRS 425 Advanced Public Speaking 3 Y

Students create and deliver manuscript speeches on subjects of social, political, and philosophical interest. Emphasizes rhetorical style and concepts of eloquence. PREREQ: CRS 225.

CRS 426 Persuasion 3 Y

Contemporary behaviorist, cognitive, and language-based theories of persuasion. Modes of inquiry used to investigate persuasion. The behavioral compared and contrasted with the rhetorical perspective.

CRS 430 Intercultural Communication 3 Y

Double Numbered with: CRS 630

Principles and applications. Approaches and issues pertinent to effective communication across cultures and in multicultural societies. Verbal and nonverbal patterns. Culture shock.

CRS 435 Interviewing 3 S

Dyadic communication principles. Adaptation of interpersonal communication to interviewing situations: in-depth informational, resume-based employment, and problem solving. Analysis of student-designed survey questionnaires. Normal and stressful interpersonal relationships.

CRS 436 Feminist Rhetoric(s) 3  
Crosslisted with: WGS 436, WRT 436; Double  
Numbered with: CRS 636  
Feminist rhetoric from both a historical and  
global context, utilizing both primary and  
secondary readings in order to gain a sense of  
breadth and depth in the field of feminist  
rhetoric. Additional work required of graduate  
students.

CRS 438 Organizational Simulation 3 SI  
Students participate in a simulated  
organization; produce and market  
communication-related products and services;  
observe and analyze communication processes.  
R1, 6 credits maximum

CRS 439 Critical Whiteness Studies 3 SI  
Considers how white race privilege is socially  
constructed through communication (including  
through visual, social, and literary texts), while  
exploring its material effects in the day-to-  
day lives of those of all racial backgrounds.

CRS 444 Senior Capstone Seminar 3 Y  
A culminating research project on a  
communication and rhetorical concept, object,  
or phenomenon.

CRS 451 Visual Culture Past and Present:  
Gender, Religion and Politics 3 S  
Crosslisted with: HST 451, REL 451, WGS  
451  
Offered only in Florence. Contemporary  
visual culture; its representation of gender,  
religion, and politics and the origins of that  
representation in a pictorial language first  
codified in Italy and Europe between circa  
1450 and 1650.

CRS 455 Rhetorical Criticism 3 Y  
Different perspectives of rhetorical criticism.  
Explicating the assumptions underlying  
different approaches to rhetorical criticism.  
Students learn and apply contemporary critical  
methods in the study of discursive practices.

CRS 456 Empirical Methods of  
Communication Research 3 Y  
Social scientific methods that underlie  
communication theory. Both quantitative and  
qualitative methods, including experimental  
design and field study techniques.

CRS 458 Applied Communication  
Research 3 Y  
Applied research methods and techniques used  
in the study of communication and culture  
within human organizations. Requires  
conducting an applied study.

CRS 466 Ethics in Human  
Communication 3 Y  
Examination of ethical constraints, dilemmas,  
and boundaries in various communication  
processes.

CRS 470 Experience Credit 1-6 SI  
Participation in a discipline- or subject-related  
experience. Students must be evaluated by  
written or oral reports or an examination.  
Limited to those in good academic standing. R

CRS 483 Rhetoric of Film 3 Y  
Double Numbered with: CRS 683  
Examination of how popular films and  
documentaries function rhetorically to reflect  
and construct social and political change.

CRS 490 Independent Study 1-6 SI  
In-depth exploration of a problem or  
problems. Individual independent study upon a  
plan submitted by the student. Admission by  
consent of supervising instructor or instructors  
and the department. R

CRS 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project  
under the supervision of a faculty member. R2,  
3 credits maximum

CRS 514 Language & Meaning 3 IR  
Analysis of language and social interaction in  
various contexts; language and social identity.

CRS 531 Advances in Interpersonal  
Communication 3 IR  
Introduction to contemporary theories and  
research in the field of interpersonal  
communications; array of theoretical models  
and research exemplars.  
PREREQ: CRS 331.

CRS 532 Family Communication 3 IR  
Examination of communication processes  
which constitute and reflect family  
functioning. Power and conflict, predictable  
and unpredictable stress, paradoxes and double  
binds, family life cycle, and communication  
competence. Permission of Instructor.

CRS 535 Communication & Community 3  
IR  
Examines current concepts of interpersonal  
communication and their historical  
development. Demonstrates how interpersonal  
communication influences and is influenced by  
community contexts.  
PREREQ: CRS 331.

CRS 538 Advances in Organizational  
Speech Communication 3 IR  
Concepts and theoretical perspectives.  
Organizational dynamics; communication  
issues and problems. Permission of Instructor.  
PREREQ: CRS 338.

CRS 545 Issues in Argumentation 3 IR  
Emerging perspectives of the field theory of  
argument, constructivist approaches, cognitive  
approaches, against traditional models of  
argumentation. Permission of Instructor.  
PREREQ: CRS 334.

CRS 546 Seminar in Legal  
Communication 3 IR  
Legal communication as it defines a field-  
dependent context for argumentation.  
Variables which inform legal argument from  
the field of communication including  
nonverbal, language, role, and environmental  
influences. Permission of instructor

CRS 551 History of British Public Address  
3 IR  
Public address as an influence in the political,  
legal, social, and religious history of England.  
Permission of instructor

CRS 552 History of Rhetorical Theory 3 IR  
Overview of a variety of theories, from  
ancient to contemporary, and the factors that  
affect concepts of rhetoric in the culture of  
Western thought. Permission of instructor

CRS 553 American Public Address 3 IR  
Public address as an influence in the political,  
social, legal, and religious history of America.  
Permission of instructor

CRS 567 Rhetoric and Philosophy 3 IR  
Examines the quarrel between philosophy and  
rhetoric and the way it has affected the  
development of Western thought. Permission  
of instructor

CRS 568 Rhetoric of Social Change 3 IR  
Through a critical examination of public  
discourses, the student's critical understanding  
of the scope and function of rhetoric will be  
enhanced. Permission of instructor

## Conducting

CTG 545 Basic Conducting 2 S  
Baton technique: beat patterns, tempo  
indication, preparation and release, style,  
dynamics, cueing and eye contact.

CTG 546 Intermediate Conducting Choral 2  
Hand techniques. Vocal music techniques. Score analysis. Warm-ups. Choral literature. Elements of ensemble performance.  
PREREQ: CTG 545.

CTG 548 Intermediate Conducting, Instrumental 2 Y  
Hand techniques. Instrumental music techniques. Score analysis. Warm-ups. Instrumental literature.  
PREREQ: CTG 545.

### Double Bass

DBS 140 Double Bass/Non Mus Major 1-4 S  
For non-music students.

DBS 145 Double Bass/Music Majors 1-4 S  
For music students.

DBS 146 Double Bass/Music Majors 1-4 S  
For music students.

DBS 240 Double Bass/Non Mus Major 1-4 S  
For non-music students.

DBS 245 Double Bass/Music Majors 1-4 S  
For music students.

DBS 246 Double Bass/Music Majors 1-4 S  
For music students.

DBS 340 Double Bass/Non Mus Major 1-4 S  
For non-music students.

DBS 345 Double Bass/Music Majors 1-4 S  
For music students.

DBS 346 Double Bass/Music Majors 1-4 S  
For music students.

DBS 349 Double Bass/Perform Honor 1-4 S

DBS 440 Double Bass/Non Mus Major 1-4 S  
For non-music students.

DBS 445 Double Bass/Music Majors 1-4 S  
For music students.

DBS 446 Double Bass/Music Majors 1-4 S  
For music students.

DBS 449 Double Bass/Perform Honor 1-4 S

DBS 540 Double Bass/Non Mus Major 1-4 S  
For non-music students.

DBS 545 Double Bass/Music Majors 1-4 S  
For music students.

DBS 546 Double Bass/Music Majors 1-4 S  
For music students.

### Design

DES 121 Design Odyssey 3  
A gateway experience exploring the nature of design creativity and multi-disciplinary problem solving.

DES 143 Visual Presentation and Drawing for Designers 3 Y  
Crosslisted with: EDI 143  
Drawing techniques in freehand sketching and rendered presentations for design practice. Problems in quick techniques and various media.

DES 144 Drafting for Designers 3 Y  
Crosslisted with: EDI 144  
Orthographic Drawing techniques and practices for designing.

DES 145 Introductory Environmental Design I 3 Y  
Crosslisted with: EDI 145  
Concepts used in decision making and tools necessary for translating these concepts into visual statements.

DES 146 Introductory Environmental Design II 3 Y  
Crosslisted with: EDI 146  
Design relationships and coordinates as determinates of functional, structural, and aesthetic qualities of interior environments; the physical/cultural context and method for translating programmatic requirements into three-dimensional design decisions. Overview and application of elements and principles of design.  
PREREQ: (EDI 143 OR FND 113) AND (EDI 145 OR FND 115 OR 117); COREQ: EDI 144.

DES 201 Design, Cultural Traditions and the Environment 3 Y  
Evolution of exterior and interior architecture and decorative arts in relation to environment and mode of life throughout history. Traces design history through the lens of sustainable practices.

DES 202 Contemporary Issues in Design 3 Y  
Crosslisted with: ART 202  
Overviews contemporary issues and trends in 21st century design.

DES 246 Analysis of Color for Production 3 Y  
Color theory for decorative design. Effect of color selection, media, and rendering techniques on production. Introduction to professional color research.

DES 248 Design Issues 3 Y  
Issues of design in relationship with sustainable systems, technology, organic design, the humanities, social sciences, and natural/physical sciences. Interaction between design and other disciplines.

DES 252 Environmental Design II 3 Y  
Crosslisted with: EDI 252  
Medium-scale space planning, tenant development, interior design, and documentation for the humane work environment and public spaces. Corporate structure, sustainability, materials, lighting, and construction methods.

DES 267 Textiles for Designers 3  
Overview of important textile fibers, yarns, and fabric constructions related to end-use applications in design.

DES 270 Experience Credit 1-6  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

DES 281 Design Symposium 1 S  
Visiting professionals examine and discuss design disciplines. R2, 3 credits maximum

DES 302 Design Thinking & Ideas 3 Y  
Double Numbered with: DES 602  
Introduction of major theories and writings about design within a historical context. Provide students with a theoretical toolkit for exploring design and other creative work.

DES 305 Digital Design Techniques I 3 S  
Double Numbered with: DES 605  
Explores the capabilities of industry-standard design software to develop and preflight multi-page layouts for printed distribution, with precise control over typography and composition. Projects stress essential design and pre-press techniques applicable to all design disciplines. Additional work required of graduate students.

DES 306 Digital Design Techniques II 3 S  
Double Numbered with: DES 606  
Introduces students to the two central practices of today's designers, creating vector illustrations and manipulating digital imagery. Using industry-standard design software, assignments provide practical experience for generating professional illustrations and image-based work. Additional work required of graduate students.

DES 307 Digital Design Techniques III 3 S  
Double Numbered with: DES 607  
Introduces students to the industry-leading programming environment for producing interactive content on the web, smartphones, tablets, and televisions. Assignments provide practical experience for generating professional animated work.

DES 341 Fabrication Skills and Methods 3 Y  
Double Numbered with: DES 641  
Introduction to wood and metal shop construction techniques for design fabrication. Additional work required of graduate students.

DES 342 Computer Generated Fabrication 3 Y  
Double Numbered with: DES 642  
Introduction to computer generation construction techniques for design fabrication. Additional work required of graduate students.

DES 352 Environmental Design Directed Research 3-6 Y  
Crosslisted with: EDI 352  
Research for the design of interior environments: lighting, technology, furniture, materials, special populations, ergonomics, environmental and future needs. R1, 6 credits maximum

DES 380 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

DES 452 Branding and Marketing Works 3 Y  
Double Numbered with: DES 652  
Interdisciplinary design studio focused on branding and marketing. Additional work required of graduate students.

DES 480 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

DES 481 Design for Production I 3 Y  
Examine how to develop and grow ideas to create a viable design product. Explore the necessary steps to make a design suitable for production.

DES 482 Design for Production II 3 Y  
Examine how to take designs and create prototypes. Explore branding of design products and necessary steps to make a product feasible.  
PREREQ: DES 481.

DES 485 Multidisciplinary Design Studio 3 Y  
Project oriented design studio for design majors admitted to the London design semester. Offered only in London.

DES 561 Furniture and Light Workshop 3 Y  
Design and development of experimental furniture and light fixtures. Experiences in prototype construction and industrial production methods.

DES 562 Advanced Detailing and Construction 3 Y  
Crosslisted with: ISD 654  
Advance detailing and construction techniques, documentation, shop drawings, computer-aided construction methods for fabrication.

## Drama

DRA 90 Theatre Lab 0-1 S  
Weekly department colloquium; work in progress viewed and discussed by faculty and student body. Professionals in the field frequently hold master classes. Required of all drama majors. R

DRA 105 Intro Acting/Non-Majors 3 S  
Basic group exercises and improvisations in vocal and physical relaxation, concentration, and dramatic action.

DRA 106 Scene Study for Non-Majors 3 IR  
Workshop in scene study to develop creative responsiveness to the play script.

DRA 115 Intro to Theater 3 Y  
Lecture, reading, and discussion of basic principles of play analysis and mise-en-scène. Application of principles to selected dramatic texts.

DRA 116 Intro to the Theatre 3 Y  
Continuation of DRA 115. Continued application of principles of play analysis and mise-en-scène to the interpretation of selected dramatic texts.  
PREREQ: DRA 115.

DRA 125 Intro to Acting-Majors 3 Y  
Basic group and individual exercises and improvisations in vocal, physical, and emotional relaxation, concentration, and dramatic action. Required of all first-year students majoring in drama.

DRA 126 Introduction to Acting 6 Y  
Continuation of group and individual exercises and improvisations in vocal, physical, and emotional relaxation, concentration, and dramatic action. Required of all first-year students majoring in drama. Limited to drama majors.  
PREREQ: DRA 125.

DRA 130 Tap Dance I 2 Y  
Introduction to basic tap dance technique and vocabulary, as applied to musical theater. Department consent required.

DRA 135 Jazz Dance I 2 Y  
Introduction to the technique and style of classic and/or contemporary jazz dance, specifically as applied to the musical theater stage. Department consent required.

DRA 136 Jazz Dance for Actors 2  
Introduction to the style and technique of jazz dance, specifically designed for the acting student. R1, 4 credits maximum

DRA 140 Ballet I 2 S  
Introduction to the theory and technique of classical dance as applied to musical theater. Four semesters of ballet are required for musical theater majors. Department consent required. R

DRA 210 Dance Muscl Thtr:Mdern 2 Y  
Designed to enhance students' understanding of and ability to perform modern dance technique through exploring the elements of dance: centering the body, gravity, balance, posture, gesture, rhythm, moving in space, and breath.

DRA 220 Introduction to Scene Study 3 S  
Application of acting fundamentals to scenes from modern and classical drama.  
PREREQ: DRA 126. R2, 9 credits maximum

DRA 221 Voice/Verse Practicum I 3 Y  
Exercises to free the voice from factors inhibiting spontaneous expression of thought and feeling. Students will use Shakespeare's sonnets and other texts in order to learn the basic elements for working with heightened poetic language.  
PREREQ: DRA 126.

DRA 222 Voice/Verse Practicum II 3 Y  
Continuation of DRA 221 with advanced vocal exercises. Students will work with heightened and poetic texts using speeches and short scenes from classical and modern texts.  
PREREQ: DRA 221.

DRA 223 Scene Study with Directors 3 Y  
Actors will work with student directors on a wide range of texts in order to develop collaborative vocabulary and technique. Required for all BFA acting majors. BFA majors only.  
PREREQ: DRA 220.

DRA 224 Stage Diction 2 IR  
Continuation of DRA 223 emphasizing connected general American speech and stage standard diction.  
PREREQ: DRA 223.

DRA 230 Tap Dance II 2 Y  
Continuous and progressive study of tap dance technique, including introduction to standard audition material. Preliminary style study. Department consent required.

DRA 235 Jazz Dance II 2 Y  
Continuation of the work begun in Jazz I, progressing to intermediate level turns, jumps, and combinations. Department consent required. R1, 4 credits maximum

DRA 240 Ballet II 2 S  
Continuation of work begun in Ballet I, progressing to extended adagios, elementary turns, and allegro combinations. Department consent required.

DRA 260 Musical Theater Practicum I 1 S  
Introduction to Musical Theater through analysis, sight reading, vocal technique and practice of the repertoire. Required of all first year students majoring in Musical Theater. Must be taken twice.

DRA 261 Intro Mus Thtre Perform I 3 Y  
Synthesis of music, lyrics, and acting fundamentals in the preparation of basic musical theater repertoire for performance. Required of all musical theater majors.  
PREREQ: DRA 125 AND 126 AND 260 AND MTC 125 AND 225; COREQ: MTC 226 AND PNO 120.

DRA 262 Intro Musicl Thtre Perf II 3 Y  
Continuation of DRA 261 emphasizing more complex problems from the musical theater repertoire. Required of all musical theater majors.  
PREREQ: DRA 261; COREQ: PNO 120.

DRA 270 Experience Credit 1-6 S  
Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Permission in advance of assigned instructor, dept chair or dean. Limited to those in good academic standing. R

DRA 273 Movement for Actors I 2 Y  
Movement principles and techniques to develop balance, strength, flexibility, endurance and coordination combined with exercises to build physical awareness, confidence and good anatomical use. Required of all second year students majoring in Drama.  
PREREQ: DRA 126. R1, 4 credits maximum

DRA 274 Movement for Actors II 2 Y  
Emphasizes dynamic physical practice and analysis in the work of the actor. Required of all second year students majoring in Drama.  
PREREQ: DRA 273. R1, 4 credits maximum

DRA 305 Adv Acting (Drama Minors) 3 Y  
An experiential exploration of the acting process, focusing on advanced acting techniques and their application to challenging texts, designed for theater minors.  
PREREQ: DRA 105.

DRA 310 Theater Dance Styles I 2  
Dance styles used in the musical theater repertory. Evolution of theater dance from musical/rhythmic and period sources. Department consent required.  
PREREQ: DRA 240. R3, 8 credits maximum

DRA 311 Theater Dance Styles II 2  
Continuation of the work begun in the Styles I course. Emphasizing theater dance styles from the 1920s to the present. Studio investigation of the styles of major musical theater choreographers. Department consent required.  
PREREQ: DRA 240. R2, 10 credits maximum

DRA 315 Introduction to Play Analysis 3 E  
Play scripts as 'scores' for production and performance. Techniques used by directors and designers to develop ideas for shaping the elements of theatrical art into viable production concepts.  
PREREQ: DRA 115.

DRA 320 Adv Acting: Modern Drama 3 S  
Application of acting fundamentals to works of modern naturalism from Ibsen to Shepard. Method: assigned scenes. Prereq: acceptance for advanced work by departmental faculty.  
PREREQ: DRA 220 TWICE.

DRA 321 Advanced Voice Practicum I 3 S  
A continuation of DRA 221, 222 exploring classical texts that challenge the actor emotionally. The class will cover a wide range of periods and will focus on clear diction and facility with complex spoken language.  
PREREQ: DRA 222.

DRA 322 Advanced Voice Verse Practicum II 3 S  
A continuation of DRA 321, including the study of dialects for the stage.  
PREREQ: DRA 321.

DRA 328 Pract. in Stage Makeup 2 Y  
Problems and practice in stage makeup techniques.

DRA 330 Tap Dance III 2  
Tap dance technique on the intermediate level. Emphasis on technical precision, rhythmic accuracy, dynamics, and stylistic components of tap. Department consent required.  
PREREQ: DRA 240.

DRA 331 Introduction to Directing 3 S  
Fundamental practices of stage direction and rehearsal techniques in an acting scene study environment.  
PREREQ: DRA 315.

DRA 333 On-Camera Acting 3 Y  
Acquisition and development of specialist acting skills. Techniques are explored and practiced extensively in front of the camera. Student must have passed the Drama Department's sophomore evaluation.  
PREREQ: DRA 220 TWICE. R1, 6 credits maximum

DRA 335 Jazz Dance III 2 Y  
Ongoing and progressive study of contemporary jazz dance technique and styles. Intermediate/advanced level jumps, turns, and combinations. Department consent required.  
PREREQ: DRA 240. R3, 4 credits maximum

DRA 340 Ballet III 2 S  
Continuous and progressive studio study of the technique and theory of classical theatrical dance. Intermediate level adagio, turns, petit and grand allegro. Department consent required.

DRA 345 Dance in New York City 3 Y  
Professional-level dance study in New York City. Students participating in the Drama Department's Tepper Semester attend studio classes at the NYC dance center affiliated with the Tepper program.  
PREREQ: DRA 240.

DRA 350 London Theatre Season 2 Y  
Theater in Britain, particularly West End and major repertory theaters in London. Students attend weekly lecture and 10 theatrical productions. An activity fee covers ticket costs. Not open to drama majors.

DRA 351 Contemporary Brit Theatre 3 Y  
Theater in the British Isles; West End and major repertory theaters in London. Readings, lectures, and attendance at and discussion of current productions. Not open to drama majors.

DRA 352 Survey of Theatre History 3  
World theater from its ritual beginnings to the present, with an emphasis on significant theatrical movements, dramatic genres, and styles of performance.  
PREREQ: DRA 115.

DRA 355 Dev of Theatre & Drama I 3 Y  
Theater and drama from pre-Greek through Elizabethan England. Changes in social, cultural, and political context related to changing theatrical and dramatic forms.  
PREREQ: DRA 115.

DRA 356 Dev/Theater & Drama II 3 Y  
Drama and theatrical production from Italian Renaissance through circa 1870.  
PREREQ: DRA 115.

DRA 358 Backstory: Devising Original Performance 3 Y  
Designed to provide tools to devise a solo performance piece based on a historic character of event through art, movement and text developed for outreach opportunities in the community.  
PREREQ: DRA 220. R1, 6 credits maximum

DRA 360 Community Actors Workshop 1-3 Y  
Drama group led by SU Drama students for people in the Syracuse community with special needs. Students facilitate creative dramatics with participants and co-create an end of term production. May be repeated twice for credit.  
R2, 6 credits maximum

DRA 362 Musical Theater Scene Study 3  
Study and performance of scenes, duets, trios, and ensembles from the Musical Theater repertoire.  
PREREQ: DRA 262.

DRA 371 Stage Combat 2 S  
Integrative and intensive training incorporating diverse movement, acrobatic and fighting exercises and techniques specially designed for stage combat. Work on dramatic scenes where combat is used.  
PREREQ: DRA 126. R1, 4 credits maximum

DRA 373 Clown Technique 3 Y  
Principles and techniques of clown with elements of the fool, bouffons, and the grotesque. Actor's instincts heightened through exploration of clown logic, the rhythm of failure, repetition and resiliency. Permission of instructor required.  
PREREQ: DRA 274. R1, 6 credits maximum

DRA 374 Solo Creation in Physical Poetry 3 Y  
Student's create original solo work using the analytical, qualities of physical poetry and exploring the use of theatrical metaphor. Required of all Drama acting majors.  
PREREQ: DRA 373.

DRA 375 Drama Pedagogy 1-3 S  
Students serve as teaching assistants in a variety of curricula. R2, 9 credits maximum

DRA 379 Honors in Drama 3 IR  
Limited to selected students.

DRA 381 Italian and European Theater 1500-1700 3 Y  
Crosslisted with: LIT 381, WGS 381  
Secular and professional drama as it emerged in Renaissance Italy and spread to Spain, England, and France. Selected works of Machiavelli, Monteverdi, Cervantes, Calderon, Shakespeare, Molière, Behn and others (in English). Offered only in Florence.

DRA 386 Edinburgh Fringe Festival 3 S  
Rehearsal and performance of a theatrical production at the Edinburgh Fringe Festival in Scotland. R1, 6 credits maximum

DRA 389 Honors Drama 3 IR  
Assigned problems individually fitted to the needs of the student of play directing, play writing, or theater research, to stimulate creative effort. Senior thesis required detailing results of the particular project.

DRA 391 Introduction to Playwriting 3 Y  
Introductory practice in the writing and development of dramatic structure, characterization, dialogue. Practice in writing the short play.  
PREREQ: DRA 115.

DRA 392 Playwriting 3 Y  
Building upon principles learned in DRA 391 students will investigate, develop, and write exercises in dramatic style, form, and point of view. Practice in writing standard one-act play.  
PREREQ: DRA 391.

DRA 395 Theatre Management II 3 Y  
The creation of a detailed budget of a theatrical season including all income and expenses. Budgets will adhere to rules of theatrical unions based on collective bargaining agreements and Federal, state, and local laws.

DRA 400 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

DRA 405 Adv Actg/Styles/Dra Minrs 3  
An experiential exploration of the acting process, focusing on advanced acting techniques and their application to classical and poetic texts, designed for drama minors.  
PREREQ: DRA 305.

DRA 410 Auditioning: Musical Thtr 3 SI  
For seniors in musical theater. Repertoire, techniques, and procedures necessary for a professional career in musical theater. Practice, lecture/discussion, and readings.  
PREREQ: DRA 262. R1, 6 credits maximum

DRA 420 Advanced Scene Study: Poetic Drama 3 S  
Dealing with acting challenges posed by verse and other forms of poetic writing from the classical repertoire, such as Shakespeare and the ancient Greeks. Acceptance for advanced work by drama department faculty and permission of instructor. BFA majors only.  
PREREQ: DRA 220 TWICE. R3, 12 credits maximum

DRA 421 Acting Workshop 2 SI  
For those interested in theater as observers or professionals. Sense memory, improvisations, objectives, personalization, emotional recall.  
R

DRA 422 Period Style in Thtr Perf 3 IR  
Development of the use of language and body in a wide variety of plays, ranging from classical Greek to modern. Permission of instructor.

DRA 423 Character Mask for the Actor 3 Y  
Exploration of extreme character and composition using advanced physical vocabulary and character mask exercises in the tradition of LeCoq.

DRA 424 Assistant Directing: Elizabethan and Romantic Plays 1-3 Y  
Assigned work as assistant director for production of DRA 524 class.  
PREREQ: DRA 355 AND 515 AND 531.

DRA 425 Assistant Directing: Classic and Classicist Mode 1 Y  
Assigned work as assistant to director for production of DRA 525.  
PREREQ: DRA 315 AND 331 AND 356.

DRA 426 Assistant Directing: Drama in the Naturalistic Mode 1 Y  
Assigned work as assistant director for production of DRA 526.  
PREREQ: DRA 315 AND 331 AND 356.

DRA 430 Tap Dance IV 2  
Studio study of tap dance technique on the advanced level. Progression to extended combinations, stressing technical and rhythmic accuracy in a variety of dance styles. Department consent required.  
PREREQ: DRA 240.

DRA 433 Classical and Modern Speech Practicum 3 IR  
Development of facility with complex spoken language. A sight reading class, incorporating poetry and prose from a wide range of periods, using Linklater voice techniques. Permission of instructor.

DRA 435 Jazz Dance IV 2 Y  
Advanced classic and/or contemporary jazz dance technique and style for musical theater performers. Progression to advanced level jumps, turns and combinations. Emphasis on style, performance and audition strategies. Department consent required.  
PREREQ: DRA 240.

DRA 441 Ballet IV 2  
Advanced ballet technique for musical theater performers. Progression to complex combinations, turns, grand allegro. Consideration of stylistic elements and performance qualities. Department consent required.  
PREREQ: DRA 240. R6, 16 credits maximum

DRA 444 Directing: One-Act Play 2 SI  
Students will direct a one-act play lasting no more than 75 minutes. This play will include work with challenging text and production design elements.  
PREREQ: DRA 315 AND 331 AND (424 OR 425 OR 426).

DRA 445 Directing: Full-Length Play 3 SI  
Direct a full-length play, lasting more than 75 minutes. This play will include work with challenging text and production design elements.  
PREREQ: DRA 444 AND (424 OR 425 OR 426).

DRA 450 Advanced Musical Theater Repertoire 3 S  
Advanced problems in songs from the entire musical theater repertoire. Emphasis is placed on developing the students' abilities to choose and prepare repertoire appropriate to their strengths. One semester required of all musical theater majors.  
PREREQ: DRA 262. R1, 6 credits maximum

DRA 451 Topics/Theatrical&Dra Hist 3 IR  
Period, stylistic development, or other aspect of the history of theater and drama selected by the department and announced before registration.  
PREREQ: DRA 115. R

DRA 452 Topics/Modern Theatre&Dra 3 IR  
Aspect of the development of the theater and drama of our time selected by the department and announced before registration. May be repeated for credit.  
PREREQ: DRA 451. R

DRA 453 History of Musical Theater 3 Y  
Survey of musical theater genres, composers, and lyricists, directors, choreographers and performers, from circa 1860 to the present. Required of all musical theater majors.  
PREREQ: DRA 115.

DRA 461 Musical theater Performance-Cabaret 3 Y  
Students will create, produce, publicize, rehearse, and perform their own solo cabaret presentations.  
PREREQ: DRA 262. R1, 6 credits maximum

DRA 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

DRA 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

DRA 515 Play Analysis and Introduction to Mise-en-Scène 3 Y  
Play scripts as "scores" for production and performance. Techniques used by directors and designers to develop ideas for shaping the elements of theatrical art into viable production concepts. Constructive production criticism.  
PREREQ: DRA 115.

DRA 520 Graduate Scene Study I 0-3 S  
Problems in characterization, period, and language posed by masterworks of prose drama. Scenes from Ibsen, Chekhov, Shaw, etc.

DRA 521 Acting Workshop (London) 3 S  
Training sessions with British adjunct teachers in areas of skills and technique not available on the Syracuse campus. Each teacher offers several sessions in a special area.

DRA 522 Acting Workshop (London) 3 S  
Training sessions with British adjunct teachers in areas of skills and technique not available on the Syracuse campus. Each teacher offers several sessions in a special area.

DRA 523 Audition Technique 3 S  
Audition procedures and techniques necessary for a career in theater, film, and television. Course will include readings, lecture/discussion, and practice. Student must have passed sophomore evaluations.  
PREREQ: DRA 220 TWICE. R1, 6 credits maximum

DRA 524 Acting: Drama in the Elizabethan and jRomantic Modes 0-3 Y  
Character study, scene work, rehearsal, and performance of plays in the Elizabethan and/or romantic modes. Plays may be either of the historical periods or modern works in the same style. Instructor determines credit load of each student individually.  
PREREQ: DRA 126. R3, 12 credits maximum

DRA 525 Acting: Drama in Classic and Classicist Mode 0-3 Y  
Character study, scene work, rehearsal, and performance of plays in classic or classical modes. Plays may be Greek, Roman, neoclassical, or modern works in the same style. Instructor determines the credit load of each student individually.  
PREREQ: DRA 126. R3, 12 credits maximum

DRA 526 Acting: Drama in the Naturalistic Mode 0-3 Y  
Character study, scene work, rehearsal, and performance of plays in the naturalistic tradition. Instructor determines the credit load of each student individually.  
PREREQ: DRA 126. R3, 12 credits maximum

DRA 527 Dialects 3 IR  
Standard foreign dialects for dramatic purposes using phonograph records and phonetic transcriptions of foreign dialects. Permission of instructor.

DRA 528 Dialects Workshop 3 IR  
Continuation of DRA 527.  
PREREQ: DRA 527.

DRA 529 Acting for the Frame 3 Y  
Acquisition and development of specialist screen acting skills. Techniques are explored and practiced extensively in front of the camera. Offered only in London. Admission to the London Drama Program by permission of department chair.  
PREREQ: DRA 355 AND 356.

DRA 530 Advanced Actors Workshop 3 S  
Scene study. Selection by audition and interview. R3, 15 credits maximum

DRA 531 Introduction to Directing 3 Y  
Basic directing theory and practice. Projects and exercises in fundamental directing skills. Permission of instructor.  
PREREQ: (DRA 105 AND 106) OR (DRA 125 AND 126) AND DRA 515.

DRA 532 Directing: Special Problems 3 Y  
Specific area of directing selected by the department and announced before registration. Direction of assigned scenes with actors from DRA 320. May be repeated for credit, if problems differ.  
PREREQ: DRA 515. R

DRA 539 Directors' Workshop 3 S  
Increasing conceptual skills and rehearsal techniques by directing assigned materials under close faculty supervision. Selection by interview.

DRA 540 Theater Dance Repertory 1-2  
Studio study of significant choreography from the musical theater repertoire. Emphasizing technical accuracy, stylistic integrity, and performance quality. Permission of instructor  
PREREQ: DRA 126.

DRA 550 Professional Practices 3 Y  
Focus on career development, practical skills and auditioning: including master classes with professionals, lectures, discussions, and site visits to professional venues. Specifically related to theater in New York City (Tepper Semester)

DRA 554 Emergence of Modern Theater 3 IR  
Sources of the modern theater and development of styles and movements from the nineteenth century. Influential social and cultural forces in historical context.

DRA 555 History American Theatre 3 SI  
Development of American theater from colonial origins to present. Emergence of a distinctive national tradition.

DRA 560 Music Theater Production 0-3 S  
Character study, scene work, music and dance work, rehearsal and performance of musical theater works. Admission by audition and permission of instructor only. Instructor to determine credit load of each student individually.  
PREREQ: DRA 126. R

DRA 561 Music and Shakespeare 3-4  
Crosslisted with: HOM 561  
A discussion-based course investigating the place of music in Shakespeare's plays. Also considers the role of music in early modern English culture as well as later musical adaptations of Shakespeare.

DRA 575 Choreography/Musical Stage 1 SI  
Improvisation and basic rules of dance composition to familiarize future directors and choreographers with dance production in musical theater. Dance films, contributions of important choreographers. Weekly and semester group and solo assignments.

DRA 576 Choreography/Musical Stage 1 SI  
Improvisation and basic rules of dance composition to familiarize future directors and choreographers with dance production in musical theater. Dance films, contributions of important choreographers. Weekly and semester group and solo assignments.

DRA 581 Intro to Playwriting 3 SI  
Structure, characterization, dialogue. Practice in writing the short play.  
PREREQ: DRA 315 OR 515.

DRA 582 Play Writing 3 SI  
Continuation of DRA 581.  
PREREQ: DRA 581.

DRA 585 Creative Dramatics 0-3 IR  
Theater activities for young children and adolescents in educational and community settings. Readings, discussion, practice, and supervised field experience in theater games, improvisation, and play-making techniques.

DRA 586 Creative Dramatics 0-3 IR  
Theater activities for young children and adolescents in educational and community settings. Readings, discussion, practice, and supervised field experience in theater games, improvisation, and play-making techniques.  
PREREQ: DRA 585.

DRA 591 Development of the Full-Length Play 3 Y  
Building on principles learned in DRA 391 and 392, student playwrights will investigate genre, structure, magnitude and voice in developing the full-length play.  
PREREQ: DRA 392.

DRA 592 Writing and Revising the Full-Length Play 3 Y  
Building on the knowledge and skills developed in DRA 391, 392, and 591 students will complete and revise a fully realized standard length play.  
PREREQ: DRA 591.

## Design/Technical Theater

DRD 111 Media, Methods, and Materials in Theatrical Design 3 Y  
Media, materials, and techniques employed in design for theatrical production. Required of all students planning further work in design and technical theater.

DRD 112 Drafting for the Theater 3  
The theories and practices of drafting for theatrical production. Graphic solutions, focusing on the communication of design ideas through the proper use of manual drafting instruments.

DRD 115 Introduction to Theater Production I 2 Y  
Lecture, reading, and discussion of major aspects of theater production. Participation in construction, running, and front-of-house crews for Drama Department productions. Required of Acting and Musical Theater majors.

DRD 116 Introduction to Theater Production II 2  
Continuation of DRD 115.

DRD 140 Introduction to Theater Crafts I  
3 Y

Class format combines lecture and experiential/studio assignments in the study of scenery, props, scenic art, costumes, lighting and, sound. Required of Design/Technical Theater and Stage Management majors.

DRD 141 Introduction to Design for the Theatre 3 Y

First semester: set, costume, and lighting design using drawings, perspective, costume sketching, and lighting techniques. Second semester: continuing examination of the design process, focusing on specific plays. Must be taken in sequence.

DRD 142 Introduction to Design for the Theatre 3 Y

First semester: set, costume, and lighting design using drawings, perspective, costume sketching, and lighting techniques. Second semester: continuing examination of the design process, focusing on specific plays. Must be taken in sequence.  
PREREQ: DRD 141.

DRD 201 Practicum: Assistant Design for Production 1-3 S

The collaborative process of assisting a designer of sets, costume, lighting and sound for specific productions for the department as assigned and supervised by Design/Tech faculty. R3, 12 credits maximum

DRD 240 Introduction to Theater Crafts II  
3 Y

Continuation of DRD 140.

DRD 270 Experience Credit 1-6 IR

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

DRD 301 Fundamentals of Theater Design  
3

Basic theory and techniques of design for the stage. Includes scenery, costumes and lights, Open to non-design/tech majors.  
PREREQ: DRD 115.

DRD 311 Scene Design I 3 Y

Exploration of the art, history and practice of scenic design for theater. The ideas and concepts of scenic development are investigated through research and practical experience. Permission of instructor.  
PREREQ: DRD 112 AND 141 AND 142.

DRD 312 Scene Design II 3 Y

Continued exploration of the history and practice of scenic design for the theater. Design projects will include topics such as advanced script analysis, experimental and alternative spaces and diverse entertainment productions..  
PREREQ: DRD 311.

DRD 313 CAD for the Theater 3

Introduction to the theories and practices of computer aided drafting (CAD) for theatrical production. Two dimensional graphic solutions utilizing AutoCad are the primary focus of the course, with other computer modeling and rendering programs introduced.  
PREREQ: DRD 112.

DRD 316 Practicum in Scenery Construction 2 Y

Standard scenic construction tools, techniques and practices with practical application supervised by Syracuse Stage professional staff.  
PREREQ: DRD 140 AND 240.

DRD 317 Pract./Scene Painting 2 SI

Problems and practice in scene painting, supervised by Syracuse Stage professional staff.  
PREREQ: DRD 311. R

DRD 318 Pract./Stage Properties 2 Y

Problems and practices in the procuring or design and construction of stage properties, supervised by Syracuse Stage professional staff.  
PREREQ: DRD 140.

DRD 321 Theatrical Costume Design I 3 Y

Role of the costume designer in the production process. Studio problems in design of costumes for theatrical productions of plays. Permission of instructor.  
PREREQ: DRD 142.

DRD 322 Theatrical Costume Design II 3 Y

Continuation of DRD 321/621. Role of the costume designer in the production process. Studio problems in design of costumes for theatrical productions of plays. Permission of instructor.  
PREREQ: DRD 321.

DRD 327 Pract. in Costume 2 SI

Problems and practice in design and construction of costumes, supervised by Syracuse Stage professional staff.  
PREREQ: DRD 140. R

DRD 329 Advanced Practicum in Costume Construction 2 SI

Advanced problems and practice in construction of theatrical costumes.  
PREREQ: DRD 327.

DRD 331 Stage Lighting I 3 Y

Double Numbered with: DRD 631  
Elementary physics of lighting and electricity. Lighting instruments and controls. Function of theatrical lighting. Outstanding lighting designs of past and current productions. Students design complete light plots.

DRD 332 Stage Lighting II 3 Y

Double Numbered with: DRD 632  
Continuation of DRD 631/331. Required of all majors in design/technical theater, and graduate students in stage design.  
PREREQ: DRD 331.

DRD 337 Pract./Stage Lighting 2 Y

Problems and practices in stage lighting, supervised by Syracuse Stage professional staff.  
PREREQ: DRD 140.

DRD 338 Pract./Theatre Sound 2 SI

Problems and practice in theater sound, supervised by Syracuse Stage professional staff.  
PREREQ: DRD 140 OR 141.

DRD 411 Scene Design III 3 Y

Double Numbered with: DRD 711  
Individual problems in scene design. At least three completely designed plays prepared as if for actual production.  
PREREQ: DRD 312.

DRD 412 Advanced Techniques in Theatrical Rendering 3

Continued study in a variety of graphic techniques used to illustrate theatrical designs through exploring an expanded range of media and materials.  
PREREQ: DRD 111 AND 311 AND 321. R1, 6 credits maximum

DRD 414 Advanced Projects in Entertainment Design 3 Y

The exploration, through advanced design projects, of various methods of discovering, formulating, and communicating design ideas for productions in a variety of performance genres and styles of entertainment design.  
PREREQ: DRD 312 AND (DRD 322 OR DRD 332).

DRD 421 Theatr'l Cost. Des. III 3 Y

Double Numbered with: DRD 721  
Advanced studio problems in theatrical costume design.  
PREREQ: DRD 322.

DRD 427 Tailoring Techniques for the Theater 3 SI

Traditional tailoring techniques adapted to costume construction.  
PREREQ: DRD 329.

DRD 428 Costume Draping and Pattern Drafting 3 SI

Theory and practice of techniques used in creating patterns for use in theatrical costume construction.

PREREQ: DRD 327 OR DRD 329.

DRD 429 Costume Crafts Seminar 3 SI

Theory and practice of techniques used in creating theatrical costume pieces that are crafted rather than sewn.

PREREQ: DRD 140.

DRD 431 Stage Lighting III 3

Continuation of the principles and practices of modern stage lighting as an art form.

Advanced theories will be investigated involving multi-scene, repertory, thrust and arena lighting design.

PREREQ: DRD 332.

DRD 433 Advanced Techniques 3 E

Advanced lighting technology, software and control systems.

PREREQ: DRD 140 AND 240 AND 337.

DRD 441 Adv.Stgcrft./Th.Tech. 3 Y

Permission of Instructor.

DRD 442 Structural Design for the Stage 3 Y

an introduction to the analysis of forces acting on physical structures in static equilibrium (Statics) and the interpretation and application of the results in theatrical scenic construction.

DRD 443 Stage Rigging 3

A study of accepted, safe rigging practices.

Primary focus is on the most common methods and materials of the trade. Secondary focus is on a variety of less common techniques, equipment, and practices.

PREREQ: DRD 140 AND 240.

DRD 445 Professional Practices for Theater Design and Technology 3 Y

Exploration and identification of anticipated challenges for the emerging theater design professional. Focus on career development; how to manage oneself legally, financially and ethically within the profession.

DRD 470 Experience Credit 1-6 IR

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination.

Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

DRD 480 International Course 1-12 IR

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

DRD 499 Honors Capstone Project 1-3 SI

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

DRD 501 Design for Directors 3 Y

Basic theory and techniques of design for the stage. Communicating ideas to designers and vice versa. Required of all students in directing. PREREQ: DRA 355 AND 356 AND 515 AND 531.

DRD 541 Prjcts/Tech'L Practice 3 S

Solution of advanced problems in all phases of technical practice, fitted to the needs of the individual student as far as possible. Permission of instructor.

DRD 542 Prjcts/Tech'L Practice 3 SI

Continuation of DRD 541. Permission of department.

PREREQ: DRD 541.

DRD 555 Evolution of Stage Design 3 Y

Study of the modern history of scenography, putting contemporary stage design into cultural and historical context through exploration of period style, dramatic literature, director methodology, art and architecture, and theater technology.

DRD 599 Internship in Theatrical Design, Technology, or Management 3-9 SI

Qualified senior and graduate students are assigned to staff positions with Syracuse Stage for semester or year in areas of students' individual professional training and goals.

### Drama Management

DRM 251 Introduction to Stage Management 3

Combined classroom and practicum and investigation of the stage management system. Student will be assigned as an assistant stage manager on an SU Drama production while discussing the elements of stage management in the classroom.

DRM 270 Experience Credit 1-6 S

Participation in a discipline or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. Permission in advance of assigned instructor, dept. chair or dean. R

DRM 340 Stage Management Rehearsal Techniques 2 Y

Double Numbered with: DRM 640

Exploration of techniques used by stage manager in rehearsal process. Topics include technical script analysis, blocking, prompting, scheduling, and effective use of assistants.

Additional work required of graduate students. PREREQ: DRM 251.

DRM 394 Theatre Management I 3 S

History of management in American theater. Management aspects of community theater, regional theater, summer stock, New York commercial theater, educational theater. Permission of instructor.

DRM 450 Stage Management: Performance Techniques 3 Y

Exploration of techniques used by stage managers in the performance process. Topics include organizing rehearsals, running technical and dress rehearsals, calling shows, managing and maintaining performances. PREREQ: DRM 251 AND 340.

DRM 460 Stage Management for Production 1-4 S

Assigned work as a stage manager for Drama Department production. Exploration of all aspects of stage management in actual production.

PREREQ: DRD 140 AND 240 AND DRM 251. R1, 8 credits maximum

DRM 465 Stage Management: Communication and Collaboration 3 Y

Communication and collaboration as applied to specific theatrical production scenarios. PREREQ: DRM 251.

DRM 467 Stage Management: Touring Techniques 3 Y

Exploration of stage management techniques used specifically in touring theatrical productions.

PREREQ: DRM 251 AND DRM 340 AND DRM 450.

DRM 470 Experience Credit 1-6 S  
Participation in a discipline or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. Permission in advance of assigned instructor, dept. chair or dean. R

DRM 480 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

DRM 490 Independent Study 1-6 S  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department. R

DRM 492 Production Management 3 Y  
The role of the production manager in the process of producing a theatrical season and administering a production department. Student will develop a mock seasonal production plan as a final project.  
PREREQ: DRM 251 AND 340 AND 450.

DRM 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. 1, 3 credits maximum

## Drumset

DRS 110 Drumset Instruction 1-2  
For non-music students.

DRS 115 Drumset Instruction 1-2  
For music students.

DRS 116 Drumset Instruction 1-2  
For music students.

DRS 210 Drumset Instruction 1-2  
For non-music students.

DRS 215 Drumset Instruction 1-2  
For music students.

DRS 216 Drumset Instruction 1-2  
For music students.

DRS 310 Drumset Instruction 1-2  
For non-music students.

DRS 315 Drumset Instruction 1-2  
For music students.

DRS 316 Drumset Instruction 1-2  
For music students.

DRS 410 Drumset Instruction 1-2  
For non-music students.

DRS 415 Drumset Instruction 1-2  
For music students.

DRS 416 Drumset Instruction 1-2  
For music students.

## Drawing

DRW 113 Foundation Drawing 3 S  
Crosslisted with: FND 113  
Drawing as a form of investigation of the visual world. Emphasizing process over product.

DRW 114 Special Topics in Foundation Drawing 3 S  
Crosslisted with: FND 114  
Selected areas of and approaches to drawing.

DRW 203 Painting and Drawing for Non-Art Majors 1-3 S  
Crosslisted with: PTG 203  
Fundamental concepts for techniques of painting and drawing. Open to non-art students only. May not be used for credit toward B.F.A. except by petition to Department of Studio Arts.

DRW 204 Painting and Drawing for Non-Art Majors 1-3 S  
Crosslisted with: PTG 204  
Fundamental concepts for techniques of painting and drawing. Open to non-art students only. May not be used for credit toward B.F.A. except by petition to Department of Studio Arts.

DRW 245 Figure Drawing 2-3 S  
Crosslisted with: PTG 255  
Human figure as subject and tool for drawing ideas. Figure composition, historical significance, drawing media.  
PREREQ: FND 113 OR 114 OR DRW 113 OR 114.

DRW 246 Figure Drawing 2-3 S  
Crosslisted with: PTG 256  
Human figure as subject and tool for drawing ideas. Figure composition, historical significance, drawing media.  
PREREQ: FND 113 OR 114 OR DRW 113 OR 114.

DRW 251 Printmaking: Introductory Intaglio 3 Y  
Crosslisted with: PRT 251  
Etching, drypoint, aquatint, and a variety of experimental approaches to plate making and printing. Experience in drawing and two-dimensional problem solving.

DRW 253 Printmaking: Introductory Lithography 3 Y  
Crosslisted with: PRT 253  
Basic technical processes of stone lithography, drawing to editioning. All aspects of direct drawing and transfer methods, etching, and printing processes. Experience in drawing and two-dimensional problem solving.

DRW 255 Printmaking: Introductory Serigraphy 3 Y  
Crosslisted with: PRT 255  
Papercut stencil, handcut stencil, photographic kodalith and film-positive photo stencil, various experimental techniques, and ink formulas. Drawing and two-dimensional problem solving.

DRW 257 Printmaking: Introductory Relief 3 Y  
Crosslisted with: PRT 257  
Investigation of the process. Cutting and printing the raised surface of various materials, including wood, linoleum, plaster, masonite, and boxwood. Experience in drawing and two-dimensional problem solving.

DRW 351 Printmaking, Intermediate Workshop 3 Y  
Crosslisted with: PRT 351  
Individual development in one or more printing processes: relief, intaglio, lithography, silk screen. Problem solving through drawing and development of imagery.

DRW 352 Printmaking, Intermediate Workshop 3 Y  
Crosslisted with: PRT 352  
Individual development in one or more printing processes: relief, intaglio, lithography, silk screen. Problem solving through drawing and development of imagery.

DRW 353 Anatomy 3 IR  
Crosslisted with: PTG 353  
The skeleton, construction of the human body, and interpretation in drawing.  
PREREQ: FND 113 OR 114 OR DRW 113 OR 114.

DRW 354 Anatomy 3 IR  
Crosslisted with: PTG 354  
The skeleton, construction of the human body, and interpretation in drawing.  
PREREQ: FND 113 OR 114 OR DRW 113 OR 114.

DRW 355 Intermediate Drawing 2-3 S  
Crosslisted with: PTG 355  
Continuing development of critical awareness through exploration of ideas and media. Components of pictorial structure and expression.  
PREREQ: PTG 255 AND 256.

DRW 356 Intermediate Drawing 2-3 S  
Crosslisted with: PTG 356  
Continuing development of critical awareness through exploration of ideas and media. Components of pictorial structure and expression.  
PREREQ: PTG 255 AND 256.

DRW 451 Printmaking: Advanced Workshop 3 Y  
Crosslisted with: PRT 451  
Individual research. One or more processes, emphasizing color printing and integration of advanced printmaking methods and materials. Resolution of concept and imagery through drawing and problem-solving skills.

DRW 452 Printmaking: Advanced Workshop 3 Y  
Crosslisted with: PRT 452  
Individual research. One or more processes, emphasizing color printing and integration of advanced printmaking methods and materials. Resolution of concept and imagery through drawing and problem-solving skills.

DRW 455 Advanced Drawing 2-3 Y  
Crosslisted with: PTG 455  
Historical awareness. Relation of drawing to major areas of study. Philosophical development in the use of personal imagery and techniques.  
PREREQ: PTG 355 AND 356.

DRW 456 Advanced Drawing 2-3 Y  
Crosslisted with: PTG 456  
Historical awareness. Relation of drawing to major areas of study. Philosophical development in the use of personal imagery and techniques.  
PREREQ: PTG 355 AND PTG 356.

DRW 503 Drawing and Painting for Non-Art Majors 1-3 S  
Crosslisted with: PTG 503  
Fundamental concepts and techniques of painting and drawing.

DRW 504 Drawing and Painting for Non-Art Majors 1-3 S  
Crosslisted with: PTG 504  
Fundamental concepts and techniques of painting and drawing.

DRW 555 Drawing Research 1-6 S  
Crosslisted with: PTG 555  
Drawing as an expression and creative art form.  
PREREQ: PTG 455 AND 456.

### Environmental Design

EDI 100 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EDI 143 Visual Presentation and Drawing for Designers 3 Y  
Crosslisted with: DES 143  
Drawing techniques in freehand sketching and rendered presentations for design practice. Problems in quick techniques and various media.

EDI 144 Drafting for Designers 3 Y  
Crosslisted with: DES 144  
Orthographic Drawing techniques and practices for designing.

EDI 145 Introductory Environmental Design I 3 Y  
Crosslisted with: DES 145  
Concepts used in decision making and tools necessary for translating these concepts into visual statements.

EDI 146 Introductory Environmental Design II 3 Y  
Crosslisted with: DES 146  
Design relationships and coordinates as determinates of functional, structural, and aesthetic qualities of interior environments; the physical/cultural context and method for translating programmatic requirements into three-dimensional design decisions. Overview and application of elements and principles of design.  
PREREQ: (EDI 143 OR FND 113) AND (EDI 145 OR FND 115 OR 117); COREQ: EDI 144.

EDI 205 Computer Applications in EDI, Level I 3 Y  
Computer instruction for interior design emphasizing computer-aided drafting and solid modeling for interior application.

EDI 247 Fundamentals of Interior Design 3 Y  
Theoretical and technical knowledge of basic principles of interior design. Overview of space planning, material applications, color, aesthetics, code and sustainable practice in relation to the interior. For non majors.

EDI 251 Environmental Design I 3 Y  
Basic concepts and construction methods for small scale environments. Individual and group needs in relation to personal, family, and institutional spaces  
PREREQ: FND 115 OR 117 OR EDI 146 OR DES 146; COREQ: EDI 253.

EDI 252 Environmental Design II 3 Y  
Crosslisted with: DES 252  
Medium-scale space planning, tenant development, interior design, and documentation for the humane work environment and public spaces. Corporate structure, sustainability, materials, lighting, and construction methods.  
PREREQ: EDI 251; COREQ: EDI 254.

EDI 253 Design Presentation and Techniques I 3 Y  
Presentation techniques using various media, hand and computer generated for design development, presentation, and construction.  
PREREQ: EDI 144 OR FND 113; COREQ: EDI 251.

EDI 254 Design Presentation and Techniques II 3 Y  
Advanced presentation techniques using various media; hand and computer generated for design development.  
PREREQ: EDI 253; COREQ: EDI 252 OR DES 252.

EDI 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EDI 305 Computer Applications, Level II 3 Y  
Crosslisted with: ISD 305  
Instruction in the use and application of CADD (Computer Aided Design and Drafting). Emphasis given to architectural drafting, space planning and two- and three-dimensional representation.

EDI 326 Italian Design Tradition: Room, House, City 3 IR  
Room, house, city as products of a cultural heritage that offers historical, social, artistic, and spatial meaning. Offered in Florence, Italy.

EDI 327 Room, House, City: Studio 3 IR  
Interior room becomes, simultaneously, starting point and result of design compositions of EDI 326. Offered in Florence, Italy.

EDI 341 Building and Construction 3 Y  
Introduction to building materials and construction techniques for wood-frame, steel-frame, and masonry structures. How buildings stand up, building codes, working drawings, and site-planning process.

EDI 346 American Traditions 3 Y  
Crosslisted with: ISD 346  
Historic developments in America as they related to housing and commercial design. Historic preservation laws and codes, barrier-free design, and adaptive reuse considerations.

EDI 347 Historic Buildings: Studio 3  
Crosslisted with: ISD 347  
Projects in historic preservation and adaptive use.

EDI 348 Introduction to Lighting Design 3 Y  
Crosslisted with: ISD 348  
Theory and application of lighting as design tool for use in interior and exterior situations. Technical material and communication required for design; contract and specified documents.

EDI 351 Environmental Design III 3 Y  
Design of large public use environments. Application of codes, material specifications, space planning, construction methods, lighting design and sustainable design practices for use in interior and exterior situations.  
PREREQ: EDI 252 OR DES 252; COREQ: EDI 353.

EDI 352 Environmental Design Directed Research 3-6 Y  
Crosslisted with: DES 352  
Research for the design of interior environments: lighting, technology, furniture, materials, special populations, ergonomics, environmental and future needs.  
PREREQ: EDI 351. R1, 6 credits maximum

EDI 353 Environmental Factors 3 Y  
Basic structural theory, building processes, systems, materials, and code requirements for the design of sustainable construction and remodeling.  
PREREQ: (EDI 252 OR DES 252) AND EDI 254; COREQ: EDI 351.

EDI 354 Professional Practice for Designers 3 Y  
Organizational and management skills for designers. Client and trade relations, marketing, design fees and contracts, accounting methods. Professional ethics and designer responsibility.

EDI 380 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

EDI 400 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

EDI 451 Environmental Design Focus Studio 3 Y  
Focus on a specific category of environmental design: residential, commercial, hospitality, institutional, retail, and health care for the purpose of development of expertise in focus area.  
PREREQ: EDI 351 AND 353; COREQ: EDI 453.

EDI 452 Environmental Design Thesis Studio 3 Y  
Design development and presentation of thesis project.  
PREREQ: EDI 451 AND 453; COREQ: EDI 454.

EDI 453 Thesis Prep and Research 3  
Research in relation to the design of the interior environment focused on the development of thesis proposal and programming.  
PREREQ: EDI 351 AND 353; COREQ: EDI 451.

EDI 454 Environmental Design Portfolio 3 Y  
Development of professional portfolio, self-branding, interviewing techniques.  
PREREQ: EDI 451 AND 453; COREQ: EDI 452.

EDI 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Ensemble (Chamber Music)

ENC 510 Chamber Music Mixed 0-1 S  
R

ENC 520 Chamber Music/Piana 0-1 S  
R

ENC 530 Chamber Music/Strings 0-1 S  
R

ENC 540 Chamber Music/Woodwinds 0-1 S  
R

ENC 550 Chamber Music/Brass 0-1 S  
R

ENC 560 Chamber Music/Percussion 0-1 S  
R, 8 credits maximum

## Ensemble (Instrumental)

ENI 470 Experience Credit 1-6  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

ENI 510 Large Bands 0-1 S  
R

ENI 520 Small Bands 0-1 S  
R7, 8 credits maximum

ENI 530 Reading Band 0-1 IR  
R

ENI 540 University Orchestra 0-1 S  
R

ENI 550 Small Orchestra 0-1 IR  
R7, 8 credits maximum

ENI 560 Reading Orchestra 0-1 IR  
R

## Ensemble (Vocal)

ENV 510 Large Chorus 0-1 S  
R

ENV 520 Small Chorus 0-1 S  
R

ENV 530 Reading Chorus 0-1 IR  
R

ENV 540 Hendricks Chapel Choir 0-1 S  
R

## Euphonium

EUP 130 Euphonium/Non Mus Majors 1-4 S

For non-music students.

EUP 135 Euphonium Instruction 1-4 S

For music students.

EUP 136 Euphonium Instruction 1-4 S

For music students.

EUP 230 Euphonium Instruction 1-4 S

For non-music students.

EUP 235 Euphonium Instruction 1-4 S

For music students.

EUP 236 Euphonium Instruction 1-4 S

For music students.

EUP 330 Euphonium Instruction 1-4 S

For non-music students.

EUP 335 Euphonium Instruction 1-4 S

For music students.

EUP 336 Euphonium Instruction 1-4 S

For music students.

EUP 339 Performance Honors in Euphonium 1-4 S

EUP 430 Euphonium Instruction 1-4 S

For non-music students.

EUP 435 Euphonium Instruction 1-4 S

For music students.

EUP 436 Euphonium Instruction 1-4 S

For music students.

EUP 439 Performance Honors in Euphonium 1-4 S

EUP 530 Euphonium Instruction 1-4 S  
For non-music students. R

EUP 535 Euphonium Instruction 1-4 S  
For music students.

EUP 536 Euphonium Instruction 1-4 S  
For music students.

## Fashion Design

FAS 120 Fashion Skills and Techniques I 3 Y

Introduction to garment construction, assembly methods, and finishing techniques commonly used in the fashion industry.

FAS 121 Fashion Skills and Techniques II 3 Y

In-depth analysis of garment construction techniques used in ready-to-wear industry. PREREQ: FAS 120.

FAS 147 Visual Thinking 3 Y

Training in productive thinking, developing visual perception, and translating finished thoughts into visible models as aids in the process of solving design problems.

FAS 155 Introduction to the Visual Arts 3 S

Analysis and appreciation of design. Two-dimensional design problem solving, criticism, and vocabulary.

FAS 222 Fashion Skills and Techniques III 3 Y

Introduction to the use and application of pattern making (including body forms and measurement) as a critical phase in the design development process. PREREQ: FAS 121.

FAS 223 Fashion Skills and Techniques IV 3 Y

Interpretation of advanced design concepts, using pattern making and elementary draping together as a system in the creation of shape and volume in garments. PREREQ: FAS 222.

FAS 231 Fashion Design Studio I 3 Y

Exploration and conceptual development of design ideas through the development of drawings of the stylized figure; fashion details; fabrics and textures; fashion techniques and skills. PREREQ: FAS 121.

FAS 232 Fashion Design Studio II 3 Y

Advanced exploration and conceptual development of design ideas through the development of drawings of the stylized figure; fashion details; fabrics and textures; fashion techniques and skills. PREREQ: FAS 231.

FAS 270 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

FAS 300 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

FAS 301 Digital Presentation for Fashion Design 3 S

This course explores digital presentation media for fashion design. Students will create fashion, mood/inspiration, illustrations, flats and complete design presentations while exploring the vast selection of tools and methods within these media.

FAS 322 Fashion Design: Tailoring 3 IR  
Materials, designs, and construction techniques in tailoring garments. Materials in relation to design, style trends, and presentation. PREREQ: FAS 223 AND FAS 232.

FAS 323 Fashion Design: Accessory Design 3 Y

Fundamentals of fashion accessory design. Concepts and execution of original designs in a variety of fashion accessories, such as hats, handbags, belts, gloves. PREREQ: FAS 223 AND 232.

FAS 332 Fashion Design Studio III 3 Y

Advanced exploration and conceptual development of design ideas that integrate and contribute to the mastery of a variety of fashion techniques and skills including drawing, draping, flat pattern, garment construction, and tailoring. PREREQ: FAS 223 AND 232.

FAS 333 Fashion Design Studio IV 3 Y

Continued advanced exploration and conceptual development of design ideas that integrate and contribute to the mastery of a variety of fashion techniques and skills including drawing, draping, flat pattern, garment construction, and tailoring. PREREQ: FAS 332.

FAS 335 History of Fashion Design I: Origins and Revivals 3 IR

History of fashion design from ancient times to the eighteenth century. Recurrence of historic details in modern designs. Background in art history recommended.

FAS 336 History of Fashion Design II: Contemporary Trends 3 S

Fashion design since the Industrial Revolution. Factors that influenced fashion design in the eighteenth, nineteenth, and twentieth centuries. Background in art history recommended.

FAS 341 Fashion Computer Aided Pattern Design 3

Through use of industry-specific software, students develop competence in the basics of computer-aided apparel patternmaking.

FAS 419 Contemporary Issues in Fashion 3 Y

Considerations of fashion design in relationship with current issues such as sustainability, technology, economics, trends, health, aging, etc.

FAS422 Fashion Design: Senior Collection I 3 Y

Creating and executing original designs by the two- and three-dimensional methods. Advanced studies and research in relationships of fabric, specific design, design category, style trend, and artistic innovation. PREREQ: FAS 332 AND (FAS 322 OR 323).

FAS423 Fashion Design: Senior Collection II 3 Y

Creating and executing original designs by the two- and three-dimensional methods in a simulated atelier environment for maximum applications of acquired design skills. PREREQ: FAS 422.

FAS428 Social and Psychological Factors Influencing Clothing 3 IR

Application of social science concepts to the understanding of clothing over the life cycle.

FAS470 Experience Credit 1-6 S

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

FAS490 Independent Study 1-6 S

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

FAS499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

FAS526 Cultural Aspects of Clothing 3 IR

Global cultures; how dress and adornment enhance understanding of these cultures.

FAS530 Problems in Environmental Arts 3 IR

Research in design, color, historic backgrounds applied to costume. Permission of Instructor. R

## French Horn

FHN 120 French Horn Instruction 1-4 S  
For non-music students.

FHN 125 French Horn Instruction 1-4 S  
For music students.

FHN 126 French Horn Instruction 1-4 S  
For music students.

FHN 220 French Horn Instruction 1-4 S  
For non-music students.

FHN 225 French Horn Instruction 1-4 S  
For music students.

FHN 226 French Horn Instruction 1-4 S  
For music students.

FHN 320 French Horn Instruction 1-4 S  
For non-music students.

FHN 325 French Horn Instruction 1-4 S  
For music students.

FHN 326 French Horn Instruction 1-4 S  
For music students.

FHN 329 Performance Honors in French Horn 1-4 S

FHN 420 French Horn Instruction 1-4 S  
For non-music students.

FHN 425 French Horn Instruction 1-4 S  
For music students.

FHN 426 French Horn Instruction 1-4 S  
For music students.

FHN 429 Performance Honors in French Horn 1-4 S

FHN 520 French Horn Instruction 1-4 S  
For non-music students.

FHN 525 French Horn Instruction 1-4 S  
For music students.

FHN 526 French Horn Instruction 1-4 S  
For music students.

## Fiber Arts

FIB 326 Intermediate Fiber Arts 3 Y  
Intermediate level experience in weaving and off-loom construction; student-initiated research. PREREQ: FIB 225 AND TXT 221.

FIB 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

FIB 520 Fiber Arts Research Problems for Nonmajors 1-12 Y  
For nonmajor graduate students. Individual projects undertaken with the instructor's consultation and guidance. R

## Film

FIL 122 Sound/Image 3 Y  
Development of the student's understanding and approach to the critical and practical challenges of working creatively with image and sound.

FIL 221 Cinematic Modes of Production 3 Y

Introduction to the various codes and forms that work at the mainstream and borders of cinematic production, such as documentary, experimental, animation, and fictional narrative, and the techniques of 16mm filmmaking.

FIL 222 Post-Production Workshop 3 IR  
Introduction to various means of organizing and manipulating images and sound by both analogue and non-linear means. PREREQ: FIL 221.

FIL 223 Filmmaking: Storytelling Production 3 Y  
Exploration of cinematic storytelling through the production of a short 16mm narrative film. PREREQ: FIL 221.

FIL 225 Problems of Film Perception 3 Y  
A survey of major ideas of visual and audio perception. These ideas will be related to semiotic systems and how filmic meaning is encoded and decoded and/or recorded by the spectator. PREREQ: ART 253.

FIL 226 Survey of Film Theory 3 Y  
Readings in classical film theory and criticism and critical works discussed in relation to film screening. PREREQ: ART 253.

FIL 228 Film Scriptwriting 3 Y  
Introductory course to the basic elements of film scripting: dramatic fundamentals, screenplay format, narrative strategies, character creation, and dialogue development. COREQ: FIL 221.

FIL 321 Filmmaking: Animation 3 S  
Laboratory in cel, object animation, and titling preparation, and execution. Special effects. Mattes. Rotoscoping. Bipack techniques.

FIL 322 Cinematic Modes Workshop 3 S  
Advanced exploration of cinematic modes through the creation of short film(s) and critical evaluation of the process. A 16mm release print is required upon completion of this course. PREREQ: FIL 223.

FIL 324 Scriptwriting Workshop 3 Y  
Offers students further opportunity to develop scriptwriting skills. Special attention on story, character development, and narrative strategies. A portfolio-quality script for a feature-length film or for the senior project will be written.  
PREREQ: FIL 228.

FIL 329 Sound Design 3 Y  
Principles of sound and acoustics as related to recording audio for film with equal treatment given to film sound design theory and practice in both analogue and digital forms of production assemblage and editing.  
PREREQ: FIL 223. R2, 9 credits maximum

FIL 360 Topics in Film Culture 1-3 Y  
Interaction between film and society. Specific issues, such as genre, auteur, ideology, spectatorship, and technology. R

FIL 420 Filmmaking: Senior Project 3 S  
Year-long production of a film demonstrating technical and artistic skills acquired in the film program. An accepted proposal required.  
PREREQ: FIL 223 OR 322.

FIL 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

FIL 520 Film Studies Seminar 3 S  
Advanced topics relating a focused set of critical and theoretical questions to a specific film or group of films. For graduate and advanced undergraduate students.  
PREREQ: FIL 225 OR 226.

FIL 521 Filmmaking: Selected Topics 3 Y  
Modes of filmmaking such as experimental, narrative, expository; or technical areas such as cinematography, lighting, or art design.  
PREREQ: FIL 223. R2, 9 credits maximum

FIL 523 Cinema Acting&Directing 3 Y  
Exercises in filming fictional dramatic scripts. Required of B.F.A. acting students and all film drama directors.

FIL 527 Critical Problems Film&Video 3 IR  
Methods of film and video criticism. The place of the author, the text, the spectator, and the ideological underpinnings of aesthetic value in the critical process.  
PREREQ: FIL 225 AND 226.

## Flute

FLT 110 Flute Instruction 1-4 S  
For non-music students.

FLT 115 Flute Instruction 1-4 S  
For music students.

FLT 116 Flute/Music Majors 1-4 S  
For music students.

FLT 210 Flute Instruction 1-4 S  
For non-music students.

FLT 215 Flute Instruction 1-4 S  
For music students.

FLT 216 Flute Instruction 1-4 S  
For music students.

FLT 310 Flute Instruction 1-4 S  
For non-music students.

FLT 315 Flute Instruction 1-4 S  
For music students.

FLT 316 Flute Instruction 1-4 S  
For music students.

FLT 319 Performance Honors in Flute 1-4 S

FLT 410 Flute Instruction 1-4 S  
For non-music students.

FLT 415 Flute Instruction 1-4 S  
For music students.

FLT 416 Flute Instruction 1-4 S  
For music students.

FLT 419 Performance Honors in Flute 1-4 S

FLT 510 Flute Instruction 1-4 S  
For non-music students.

FLT 515 Flute Instruction 1-4 S  
For music students.

FLT 516 Flute Instruction 1-4 S  
For music students.

## Foundation

FND 101 Beginning Drawing for Nonmajors 3 IR  
Developing the student's proficiency in understanding the basic elements of drawing. In addition, basic one- and two-point perspective will be taught.

FND 102 Beginning Figure Drawing for Nonmajors 3 IR  
Developing the student's proficiency in understanding the basic elements of figure drawing.

FND 103 Basic Design I 2-3 IR  
Elements of design and their use in two- and three-dimensional studies.

FND 104 Basic Design II 2-3 IR  
Elements of design and their use in two- and three-dimensional studies.

FND 105 General Drawing I 2-3 IR  
Drawing in a variety of media to develop accurate observation and an understanding of form.

FND 106 General Drawing II 2-3 IR  
Drawing in a variety of media to develop accurate observation and an understanding of form.

FND 107 Figure Drawing I 2-3 IR  
Drawing from the nude and costumed figure for understanding of action, proportion, and anatomical construction.

FND 108 Figure Drawing II 2-3 IR  
Drawing from the nude and costumed figure for understanding of action, proportion, and anatomical construction.

FND 111 Time Arts 3  
Art forms that involve the element of time. Students will investigate processes, conduct research, and develop critical thinking abilities in order to create projects in four dimensions.

FND 112 Special Topics in Time Arts 3  
Studio course providing opportunity to explore selected topics in art forms involving time. R1, 9 credits maximum

FND 113 Foundation Drawing 3 S  
Crosslisted with: DRW 113  
Drawing as a form of investigation of the visual world. Emphasizing process over product.

FND 114 Special Topics in Foundation Drawing 3 S  
Crosslisted with: DRW 114  
Selected areas of and approaches to drawing.

FND 115 Two-Dimensional Creative Processes 3 S  
Basic two-dimensional skills with an in-depth series of processes emphasizing the development of ideas through the use of various materials, techniques, and conceptual processes, developing a visual vocabulary, and critical thinking.

FND 116 Special Topics in Two-Dimensional Creative Processes 3 S  
Studio course based on selected areas of two-dimensional processes. R

FND 117 Dimensional Arts 3 S  
Introduction to a broad range of thought and material processes relevant to the understanding, organization, invention, and creation of three-dimensional objects and the transformation of space.

FND 118 Special Topics in Three-Dimensional Arts 3 S  
Studio course based on selected areas of dimensional arts. R

FND 120 Time Arts Teaching Assistant Course 3  
Teaching and leadership experience in the classroom. Students will work closely with faculty to learn to teach and to develop as artists and role models. This course links first-year and upper-level students in the classroom. PREREQ: FND 111. R1, 6 credits maximum

FND 200 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

### Fashion Illustration

FSH 271 Fashion Illustr Basic Skills 3 SI  
Skills to produce sketches of live model. Techniques required for fashion illustration media reproduction.

FSH 272 Fashion Illustr Various Media 3 SI  
Drawing the fashion model. Various media: black-and-white, color. Fashion trends, garment construction, fabrics, and texture.

FSH 371 Intermediate Fashion Illustrat 3 SI  
Drawing the fashion model. Figure composition and layout. The male fashion figure. Second semester: current trends in fashion. Drawing the model. Developing a personal mode or style. PREREQ: FSH 272.

FSH 372 Intermediate Fashion Illustrat 3 SI  
Drawing the fashion model. Figure composition and layout. The male fashion figure. Second semester: current trends in fashion. Drawing the model. Developing a personal mode or style. PREREQ: FSH 371.

FSH 471 Advanced Fashion Illustration 3 SI  
Drawing the fashion model. Various styles for editorial, advertising, designer, and exhibition sketches. Second semester: portfolio preparation. PREREQ: FSH 372.

FSH 472 Advanced Fashion Illustration 3 SI  
Drawing the fashion model. Various styles for editorial, advertising, designer, and exhibition sketches. Second semester: portfolio preparation. PREREQ: FSH 471.

FSH 570 Fashion Illustratn Res Prob 3 SI  
Individual development in specialized areas of fashion illustration. PREREQ: FSH 471.

### Guitar

GTR 71 Classical Guitar Performance Seminar 0 S  
Weekly performance opportunity for guitar majors. Focus on communication of musical thoughts and ideas and the relationship between a successful performance and its necessary preparation. COREQ: GTR 165 AND MHL 071.

GTR 72 Classical Guitar Performance Seminar 0 O  
Weekly performance opportunity for guitar majors. Focus on communication of musical thoughts and ideas and the relationship between a successful performance and its necessary preparation. PREREQ: GTR 071; COREQ: GTR 166 AND MHL 072.

GTR 73 Classical Guitar Performance Seminar 0  
Weekly performance opportunity for guitar majors. Focus on communication of musical thoughts and ideas and the relationship between a successful performance and its necessary preparation. COREQ: GTR 265 AND MHL 073.

GTR 74 Classical Guitar Performance Seminar 0  
PREREQ: GTR 073; COREQ: GTR 266 AND MHL 074.

GTR 75 Classical Guitar Performance Seminar 0  
Weekly performance opportunity for guitar majors. Focus on communication of musical thoughts and ideas and the relationship between a successful performance and its necessary preparation. COREQ: GTR 365 AND MHL 075.

GTR 76 Classical Guitar Performance Seminar 0  
Weekly performance opportunity for guitar majors. Focus on communication of musical thoughts and ideas and the relationship between a successful performance and its necessary preparation. PREREQ: GTR 075; COREQ: GTR 366 AND MHL 076.

GTR 77 Classical Guitar Performance Seminar 0  
Weekly performance opportunity for guitar majors. Focus on communication of musical thoughts and ideas and the relationship between a successful performance and its necessary preparation. COREQ: GTR 465 AND MHL 077.

GTR 78 Classical Guitar Performance Seminar 0  
Weekly performance opportunity for guitar majors. Focus on communication of musical thoughts and ideas and the relationship between a successful performance and its necessary preparation. PREREQ: GTR 077; COREQ: GTR 466 AND MHL 078.

GTR 160 Classical Guitar Instruction 1-4 S  
For non-music students.

GTR 165 Classical Guitar Instruction 1-4 S  
For music students.

GTR 166 Classical Guitar Instruction 1-4 S  
For music students.

GTR 260 Classical Guitar Instruction 1-4 S  
For non-music students.

GTR 265 Classical Guitar Instruction 1-4 S  
For music students.

GTR 266 Classical Guitar Instruction 1-4 S  
For music students.

GTR 360 Classical Guitar Instruction 1-4 S  
For non-music students.

GTR 365 Classical Guitar Instruction 1-4 S  
For music students.

GTR 366 Classical Guitar Instruction 1-4 S  
For music students.

GTR 369 Performance Honors in Classical Guitar 1-4 S

GTR 460 Classical Guitar Instruction 1-4 S  
For non-music students.

GTR 465 Classical Guitar Instruction 1-4 S  
For music students.

GTR 466 Classical Guitar Instruction 1-4 S  
For music students.

GTR 469 Performance Honors in Classical Guitar 1-4 S

GTR 521 Survey of Classical Guitar History and Literature 3 O  
For majors and non-majors. The history of the classical guitar, from 1487 to the present, devoted to guitar composers/performers and their musical works examined in historical, aesthetic and social contexts.

GTR 522 Classical Guitar Fingerboard Harmony 3

GTR 523 Transcribing and Arranging for Classical Guitar 3

GTR 524 Classical Guitar Pedagogy 3

GTR 560 Classical Guitar Instruction 1-4 S  
For non-music students.

GTR 565 Classical Guitar Instruction 1-4 S  
For music students.

GTR 566 Classical Guitar Instruction 1-4 S  
For music students.

### Harpsichord

HPD 130 Harpsichord Instruction 1-4 S  
For non-music students.

HPD 135 Harpsichord Instruction 1-4 S  
For music students.

HPD 136 Harpsichord Instruction 1-4 S  
For music students.

HPD 230 Harpsichord Instruction 1-4 S  
For non-music students.

HPD 235 Harpsichord Instruction 1-4 S  
For music students.

HPD 236 Harpsichord Instruction 1-4 S  
For music students.

HPD 330 Harpsichord Instruction 1-4 S  
For non-music students.

HPD 335 Harpsichord Instruction 1-4 S  
For music students.

HPD 336 Harpsichord Instruction 1-4 S  
For music students.

HPD 339 Performance Honors in Harpsichord 1-4 S

HPD 430 Harpsichord Instruction 1-4 S  
For non-music students.

HPD 435 Harpsichord Instruction 1-4 S  
For music students.

HPD 436 Harpsichord Instruction 1-4 S  
For music students.

HPD 439 Performance Honors in Harpsichord 1-4 S

HPD 530 Harpsichord Instruction 1-4 S  
For non-music students.

HPD 535 Harpsichord Instruction 1-4 S  
For music students.

HPD 536 Harpsichord Instruction 1-4 S  
For music students.

### Harp

HRP 150 Harp Instruction 1-4 S  
For non-music students.

HRP 155 Harp Instruction 1-4 S  
For music students.

HRP 156 Harp Instruction 1-4 S  
For music students.

HRP 250 Harp Instruction 1-4 S  
For non-music students.

HRP 255 Harp Instruction 1-4 S  
For music students.

HRP 256 Harp Instruction 1-4 S  
For music students.

HRP 350 Harp Instruction 1-4 S  
For non-music students.

HRP 355 Harp Instruction 1-4 S  
For music students.

HRP 356 Harp Instruction 1-4 S  
For music students.

HRP 359 Performance Honors in Harp 1-4 S

HRP 450 Harp Instruction 1-4 S  
For non-music students.

HRP 455 Harp Instruction 1-4 S  
For music students.

HRP 456 Harp Instruction 1-4 S  
For music students.

HRP 459 Performance Honors in Harp 1-4 S

HRP 550 Harp Instruction 1-4 S  
For non-music students.

HRP 555 Harp Instruction 1-4 S  
For music students.

HRP 556 Harp Instruction 1-4 S  
For music students.

### Illustration

ILL 261 Introduction to Illustration 3 Y  
Survey of American illustration integrated with studio assignments for developing perceptual and conceptual literacy. Second semester: visual interpretation of manuscripts in various media. Camera as a research tool.

ILL 262 Introduction to Illustration 3 Y  
Survey of American illustration integrated with studio assignments for developing perceptual and conceptual literacy. Second semester: visual interpretation of manuscripts in various media. Camera as a research tool.

ILL 265 History of Illustration 3  
The history of American illustration since the mid 1800s to present. Impact on and reflection of American history in both cultural and visual forms.

ILL 273 Drawing for Illustration 3 Y  
Exploration of traditional and contemporary approaches to drawing for illustrators and designers including comprehensive sketches and storyboards. Proportion and draped figure drawing emphasized.

ILL 274 Sequential Illustration 3 Y  
Study of costumed figures in age, cultural, and historic variations as applicable to illustration. Emphasis on character and visual development for animation, storyboards, graphic novels, children's books, and time-based media.

ILL 281 Illustration Symposium 1 S  
Visiting professionals from various disciplines in illustration discuss their work and career opportunities. R2, 3 credits maximum

ILL 283 Media Arts 3 Y  
Introduction to materials, techniques, equipment, and processes used by designers and illustrators.

ILL 284 Media Arts Techniques 3 Y  
Illustration skills and techniques. Practical application of color. Exploration of three-dimensional communication.

ILL 361 Intermediate Illustration 3 Y  
Visual interpretation of reproduction, development of conceptual elements, composition, and color.  
PREREQ: ILL 261 AND 283.

ILL 362 Illustration Principles 3 Y  
Principles of visual communication: choice of subject, procedures, and the practice of illustration. Studio class assignments.  
PREREQ: ILL 261 AND 262.

ILL 363 Illustration Research Problems 3 Y  
Design and development of graphic projects. Information gathering methods using photography, library, and archival research.  
PREREQ: ILL 261 AND 262.

ILL 364 Illustration Research Problems 3 Y  
Design and development of graphic projects. Information gathering methods using photography, library, and archival research.  
PREREQ: ILL 261 AND 262.

ILL 365 Electronic Illustration 3 S  
Double Numbered with: ILL 565  
Exploration of contemporary aspects of computer applications to visual problem solving in electronic, film, and print communications as they apply to the field of illustration.

ILL 461 Senior Portfolio 3 Y  
Assignments with professional restrictions focused on developing a well-rounded portfolio geared toward a specific market  
PREREQ: ILL 361 AND 362.

ILL 462 Senior Portfolio 3 Y  
Assignments with professional restrictions focused on developing a well-rounded portfolio geared toward a specific market  
PREREQ: ILL 361 AND 362.

ILL 483 The Business of Freelance Illustration 3 S  
Presentation, marketing, and promotion for the professional illustrator. Pricing, contracts, copyright laws, and other professional issues.

ILL 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ILL 561 Illustration Concept 3 Y  
Visiting faculty. The creative process, working procedures from concept to finish, and relationship between illustrator and client. Studio assignments.

ILL 562 Illustration Concept 3 Y  
Visiting faculty. The creative process, working procedures from concept to finish, and relationship between illustrator and client. Studio assignments.

ILL 565 Electronic Illustration 3 S  
Double Numbered with: ILL 365  
Exploration of contemporary aspects of computer applications to visual problem solving in electronic, film, and print communications as they apply to the field of illustration.

### Industrial Design

IND 204 Industrial Design: Technical Graphics 3 Y  
True-scale perspective systems, orthographic projections, board skills, and presentation techniques.

IND 271 Principles of Industrial Design I 3 Y  
Theoretical and technical elements, principles, and methodology. Development of the intellectual base, philosophical attitude, and manipulative skills that permit innovative solutions to product design problems.  
COREQ: IND 273.

IND 272 Principles of Industrial Design II 3 Y  
Basic design problems incorporating mechanical and electrical power systems, production constraints, and simple hand-to-product human-factor considerations.  
PREREQ: IND 271 AND 273; COREQ: IND 274 AND 276.

IND 273 Principles of Industrial Form I 3 Y  
Generation of planer and geometric form as related to materials, tools, and machine processes.  
COREQ: IND 271.

IND 274 Principles of Industrial Form II 3 Y  
Analysis and generation of additive, subtractive, and deformative curvilinear form as related to materials, tools, and machine processes.  
PREREQ: IND 271 AND 273; COREQ: IND 272 AND 276.

IND 276 Industrial Design: Visualization and Representation 3 Y  
Visualization, object representation, and presentation techniques examining the interaction between traditional drawing and technology as a means to communicate.  
PREREQ: IND 271 AND 273; COREQ: IND 272 AND 274.

IND 280 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

IND 373 Production Processes: Metals 3 Y  
Transforming metal into appropriate product forms by various mass production processes. Relationship of personal sensitivity to the logical formation of metal products.  
PREREQ: IND 272 AND 274 AND 276;  
COREQ: IND 375 AND 377.

IND 374 Production Processes: Plastics 3 Y  
Transforming plastic material into appropriate product forms by various mass production processes. Relationship of personal sensitivity to logical formation of plastic products.  
PREREQ: IND 373 AND 375 AND 377;  
COREQ: IND 376 AND 378.

IND 375 Human Factors For Designers 3 Y  
Double Numbered with: IND 673  
Human factors, ergonomics, and anthropometric considerations in the human-product-environment relationship.  
PREREQ: IND 272 AND 274 AND 276;  
COREQ: IND 373 AND 377.

IND 376 Digital Surface Modeling 3 Y  
Double Numbered with: IND 676  
The use of three-dimensional surface modeling as visual communication. Design exploration and production tools as used to communicate intent to clients, modelers, engineers, and manufacturers.  
PREREQ: IND 373 AND 375 AND 377;  
COREQ: IND 374 AND 378.

IND 377 Industrial Design: Typography Studio 3 Y  
Application of two-dimensional principles to the generation of three-dimensional typographic projects. The meaning of a text as it relates to surface structures, objects, image juxtapositions, and formal relationships.  
PREREQ: IND 272 AND 274 AND 276;  
COREQ: IND 373 AND 375.

IND 378 Symbolology and Semiotics in Industrial Design 3  
Introduction to semiotic communication theories as they relate to industrial design. Structural representation will be explored in both two and three-dimensional problem solving.  
PREREQ: IND 373 AND 375 AND 377;  
COREQ: IND 374 AND 376.

IND 471 Multidisciplinary Product Development 3 Y  
Exposure to multidisciplinary design process in which multiple perspectives shape the goals and help determine the final outcome of the development process.  
PREREQ: IND 374 AND 376 AND 378;  
COREQ: IND 477 AND 479.

IND 472 Industrial Design: Product Systems 3 Y  
Systematic analysis of human tasks and work sequences. Development of design criteria and specialized product environments and work stations. Problem definition and application of criteria to the design of complex products.  
PREREQ: IND 471 AND 477 AND 479;  
COREQ: IND 476.

IND 476 Industrial Design: Environmental Practicum 3 Y  
Systematic analysis of human spatial and graphic environment. Space analysis and visual communication: exhibit design; industrial, commercial, and public spaces; and products.  
PREREQ: IND 471 AND 477 AND 479;  
COREQ: IND 472.

IND 477 Industrial Design: Primary and Secondary Research 3  
Introduction to design based on insights into human behavior, culture, and environment. Students will observe and document interpersonal interaction, environments, and the products people use. Emphasis on identifying specific user needs.  
PREREQ: IND 374 AND 376 AND 378;  
COREQ: IND 471 AND 479.

IND 479 Industrial Design Interface 3 S  
Double Numbered with: IND 679  
Development of time-based interactions promoting expanding paradigms, better understanding, greater productivity, and ease of use through the use of adaptive interfaces. Additional work required of graduate students.  
PREREQ: IND 374 AND 376 AND 378;  
COREQ: IND 471 AND 479.

IND 481 Ethnography and Culture in Design 3 Y  
Project-oriented course introduces students to design solutions based on insights into people's natural behavior, culture, and environment. Requires field research into how people actually live, utilizing documentation and design research methods. Offered only in London for design majors.

IND 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

IND 571 Industrial Design: Product Practicum 3 Y  
Developing company-oriented products for domestic, commercial, and industrial markets; associated packaging and displays. Balance between corporate and user needs: materials, production limitations, distribution, and marketing patterns.  
PREREQ: IND 471 AND 477 AND 479;  
COREQ: IND 573 AND (IND 577 OR 578).

IND 572 Industrial Design: Advanced Problems 3 Y  
Identification and solution of product problems based on industry-wide developments and societal needs. Appropriate and comprehensive solutions sought, developed, and communicated using professional-level techniques.  
PREREQ: IND 571 AND 573 AND (IND 577 OR 578); COREQ: IND 574.

IND 573 Industrial Design: Thesis Research 3 Y  
Comprehensive design document showing both critical and creative thinking. Both written and visual information are stressed in the final product.  
PREREQ: IND 471 AND 477 AND 479;  
COREQ: IND 571 AND (IND 577 OR 578).

IND 574 Industrial Design: Thesis 6 Y  
Research, analysis, and solution of a major design problem selected by the student to further his or her professional career.  
PREREQ: IND 571 AND 573 AND (IND 577 OR 578); COREQ: IND 572.

IND 577 Industrial Design: Philosophy and Ethics 3 Y  
Historical perspective. Contemporary position and responsibilities of the industrial designer in a technological/electronic society. Interplay with associated disciplines.

IND 578 Industrial Design: Professional Practices 3 Y  
Business organizations, design management and planning. Relations with clients, office organization and management; proposals and contracts, estimating, and elementary accounting. Protection of designs, patents, copyrights, and trademarks.

## Interior Design

ISD 205 Drafting for Designers 3 Y  
Drafting elements and techniques used to solve three-dimensional designs with definitive drawings that accurately describe information required for manufacture and construction.

ISD 206 Materials for Interior Designers 3 Y  
Materials, components, millwork, lighting, construction systems, and applicable codes for design and documentation of the built environment.  
PREREQ: ISD 247 OR 251.

ISD 248 Interior Design: Introductory 3 IR  
Theoretical and technical knowledge of basic principles of good design. Analysis of plan, design function, and aesthetics of interior space in relation to individual needs.  
PREREQ: FND 247.

ISD 280 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

ISD 305 Computer Applications, Level II 3 Y  
Crosslisted with: EDI 305  
Instruction in the use and application of CADD (Computer Aided Design and Drafting). Emphasis given to architectural drafting, space planning and two- and three-dimensional representation.  
PREREQ: EDI 205 OR ISD 205.

ISD 346 American Traditions 3 Y  
Crosslisted with: EDI 346  
Historic developments in America as they related to housing and commercial design. Historic preservation laws and codes, barrier-free design, and adaptive reuse considerations.

ISD 347 Historic Buildings: Studio 3 Y  
Crosslisted with: EDI 347  
Projects in historic preservation and adaptive use.  
PREREQ: EDI 348.

ISD 348 Introduction to Lighting Design 3 Y  
Crosslisted with: EDI 348  
Theory and application of lighting as design tool for use in interior and exterior situations. Technical material and communication required for design; contract and specified documents.  
PREREQ: ISD 351.

ISD 352 Interior Design: Contract 3 Y  
Design of large office complexes, public use interiors, and service/care facilities. Individual activity; group interaction; cross-cultural relationships, requirements for people who are disabled; and health, safety, comfort, and technological factors for contract space design.  
PREREQ: ISD 351.

ISD 354 Architectural Systems for Designers 3 Y  
Basic structural theory, building processes, systems, materials, and code requirements for the design of new construction and remodeling. Vocabulary of architectural communication.  
PREREQ: ISD 353 OR EDI 341.

ISD 380 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

ISD 480 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

ISD 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

ISD 553 Interior Design: Philosophy and Research 3 Y  
Position of the interior designer in a technological society and relation of design to the humanities, social sciences, and natural/physical sciences. Interaction with disciplines.

ISD 580 International Course 1-12 SI  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

### Jewelry And Metalsmithing

JAM 271 Introduction to Jewelry and Metals 3 S  
Fundamental techniques and visual design problems as introduction to working with metal, cutting, soldering, forging, finishing, and other surface treatments.

JAM 272 Casting 3 S  
Basic casting methods used by the studio jeweler and metalsmith. Includes wax modeling and lost wax, cuttlefish bone, and other casting methods.  
PREREQ: JAM 271.

JAM 371 Surface Techniques and Processes 3 E  
Surface techniques and processes used to enhance objects made for human use and adornment. This course builds on the fabrication and casting techniques learned in the introductory level courses.  
PREREQ: JAM 272.

JAM 372 Metal Forming 3 E  
Jewelry and object design and making, using metal forming techniques and processes. Objects may include vessel forms, containers and small sculptures.  
PREREQ: JAM 272.

JAM 373 Stones and Stonesetting 3 O  
Introduction to gemology as it pertains to jewelry and metalsmithing. Intermediate and advanced level stone settings.  
PREREQ: JAM 272.

JAM 374 Color on Metal 3 O  
Jewelry and metalsmithing techniques and processes used to color the surface of non-ferrous metal objects.  
PREREQ: JAM 272.

JAM 375 Experimental Materials 3 E  
This course presents alternatives not only to traditional materials of Metalsmithing, but alternatives to how body adornment can be used to express identity in society.  
PREREQ: JAM 272.

JAM 400 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

JAM 471 History of Jewelry and Metalsmithing 3 E  
Double Numbered with: JAM 671  
Study the history of jewelry/metalsmithing from prehistoric to contemporary pieces. Differences and similarities among cultures is discussed.

JAM 472 Jewelry Production 3 E  
The reproduction of jewelry and objects through systems, moldmaking, and outsourcing. A practice commission experience and discussion of pricing included.  
PREREQ: JAM 272.

JAM 473 Machine Tools and Technology 3 O  
The use of metal forming, turning, and cutting machines will be presented. Included will be an introduction to metallurgy, toolmaking, and safety issues as they pertain to jewelry and metalsmithing studios.  
PREREQ: JAM 272.

JAM 474 Jewelry and Metalsmithing Contemporary Issues 3 E  
Double Numbered with: JAM 674  
Reading, research and discussion of the issues that face contemporary studio jewelers, metalsmiths, collectors, curators, critics and the jewelry industry.

JAM 475 Senior Portfolio and Exhibition 3 Y  
Required of seniors in the jewelry and metalsmithing major. Business practices, research paper, portfolio, professional packet, and exhibition of work. R

JAM 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Music History And Literature

MHL 71 Weekly Student Convocation, Freshman 0 S

MHL 72 Weekly Student Convocation, Freshman 0 S

MHL 73 Weekly Student Convocation, Sophomore 0 S

MHL 74 Weekly Student Convocation, Sophomore 0 S

MHL 75 Weekly Student Convocation, Junior 0 S

MHL 76 Weekly Student Convocation, Junior 0 S

MHL 77 Weekly Student Convocation, Senior 0 S

MHL 78 Weekly Student Convocation 0 S

MHL 168 History of European Music before 1750 3 Y

Crosslisted with: HOM 266

European music before 1750 in its cultural and philosophical contexts. Extensive listening. Analytical focus on selected composers and works. Presupposes familiarity with musical notation, terms, and contexts.

MHL 185 Introduction to World Music 3

Crosslisted with: HOM 285

Introduction to world music in its social, political, and cultural contexts, with an emphasis on building listening and analytic skills. Intended primarily for music and music history and culture majors.

MHL 267 European Music from 1750-1914 3 Y

Crosslisted with: HOM 267

European music from 1750 to 1914 in its cultural and philosophical contexts. Extensive listening. Analytical focus on selected composers and works. Presupposes familiarity with musical notation, terms and concepts.

MHL 268 European and American Music Since 1914 3 Y

Crosslisted with: HOM 268

Major trends and figures in art music in the United States and Europe since 1914. Topics include nationalism, neoclassicism, serialism, indeterminacy, and minimalism. Assumes basic knowledge of music.

MHL 364 History of American Popular Music 3 Y

Double Numbered with: MHL 664

Consideration of popular music in its changing cultural contexts. Social, psychological and political issues raised by successive genres. Additional work required of graduate students.

MHL 365 History of Rock Music 3 IR

A chronological survey course, studying the elements of rock music and its sociological implications.

MHL 380 International Course 1-12 SI

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

MHL 466 History of Jazz 3 Y

Chronological survey. Roots of jazz through the present.

MHL 499 Honors Capstone Project 1-3 S

Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

MHL 500 Selected Topics 1-3 SI

Selected aspect of music history or literature. Content and method of instruction may vary for each workshop. R

MHL 525 Survey of Keyboard Literature: 1650 to 1850 3 O

Historical survey of literature now performed on the piano, focusing on significant repertoire from 1650 to 1850 through performance, listening, and research.

MHL 526 Survey of Keyboard Literature: 1850 to Present 3 O

Historical survey of literature now performed on the piano, focusing on significant repertoire from ca. 1850 to the present through performance, listening, and research.

MHL 535 Orchestral Repertoire: 1600-1800 2

A comprehensive study of orchestral repertoire from 1600-1800. J. S. Bach to early Beethoven. Score analysis, composer biographies, cultural context and critical listening.

MHL 545 Aspects of Repertoire Preparation 2 Y

For instrumentalists, singers, pianists. Aspects of repertoire preparation; repertoire planning, score preparation, stylistic performance practice, harmonic listening, working in an ensemble, and stage presence. Learning theory and current performance psychology techniques.

MHL 546 Vocal Literature 3 O

For pianists and singers. Historical survey of art song repertoire through performance, listening, and research.

PREREQ: MHL 545.

MHL 547 Vocal Literature II 3 Y

For singers/pianists. Continuation of MHL546; students will use musical/literary research methods to prepare/perform song literature from the Western classical music canon.

PREREQ: MHL 546.

MHL 548 Instrumental Literature 3 E

For pianists and instrumentalists. Historical survey of major chamber music repertoire through performance, listening, and research.

PREREQ: MHL 545.

MHL 557 Survey of Choral Literature I 2 O

A survey of predominantly western sacred choral literature from the Renaissance to present, focusing on masses, requiems, motets and anthems.

PREREQ: MHL 267.

MHL 558 Survey of Choral Literature II 2 O

A survey of predominantly western sacred choral literature from the Renaissance to present, focusing on oratorios, passions, cantatas, other large sacred works, choral symphonies, vocal chamber music, world music, and spirituals.

PREREQ: MHL 266.

MHL 560 The Concert Experience 3 IR R

MHL 566 Topics in Music Literature and Analysis 3 Y

Crosslisted with: MTC 566

Intensive focus on a composer, genre or stylistic development, to be chosen by the instructor. Emphasis on analytical understanding, aesthetic issues and interdisciplinary context. R2, 12 credits maximum

### MHL 567 Choral Literature 2 IR

An overview of the major choral forms (e.g. motet, madrigal, oratorio), leading composers of choral music, and style periods from 1500 to the present. Emphasis on score study and listening.

PREREQ: MHL 266.

### MHL 568 Choral Literature for

Elementary and Secondary Choirs 2-3 Y

Examination of choral repertoire for elementary and secondary school settings. Strategies for teachers to discriminate between examples of quality choral literature through musical analysis and the examination of suitable historical contexts and musical cultures.

### MHL 578 Charles Ives: an American

Original 3 IR

A presentation designed to acquaint the student with the musical and personal characteristics that produced the unique phenomenon in American music that is Charles Ives. In-depth study of his musical and literary work.

### MHL 590 Independent Study 1-6 SI

Preparation of a project paper under guidance of a member of the appropriate faculty, who introduces student to tools of research. Presented for reading and grading to a group of three faculty, one of whom is the advisor. R

## Music Theory

### MTC 51 Composition Seminar, Freshman 0

Listening and discussion of creative issues and strategies in music composition. Two & four guest presentations by visiting composers per semester. Required of all undergraduate composition majors.

### MTC 52 Composition Seminar, Freshman 0

Listening and discussion of creative issues and strategies in music composition. Two & four guest presentations by visiting composers per semester. Required of all undergraduate composition majors.

### MTC 53 Composition Seminar, Sophomore 0

Listening and discussion of creative issues and strategies in music composition. Two & four guest presentations by visiting composers per semester. Required of all undergraduate composition majors.

### MTC 54 Composition Seminar, Sophomore 0

Listening and discussion of creative issues and strategies in music composition. Two & four guest presentations by visiting composers per semester. Required of all undergraduate composition majors.

### MTC 55 Composition Seminar, Junior 0

Listening and discussion of creative issues and strategies in music composition. Two & four guest presentations by visiting composers per semester. Required of all undergraduate composition majors.

### MTC 56 Composition Seminar, Junior 0

Listening and discussion of creative issues and strategies in music composition. Two & four guest presentations by visiting composers per semester. Required of all undergraduate composition majors.

### MTC 57 Composition Seminar, Senior 0

Listening and discussion of creative issues and strategies in music composition. Two & four guest presentations by visiting composers per semester. Required of all undergraduate composition majors.

### MTC 58 Composition Seminar, Senior 0

Listening and discussion of creative issues and strategies in music composition. Two & four guest presentations by visiting composers per semester. Required of all undergraduate composition majors.

### MTC 125 Introductory Music Theory 3 Y

Crosslisted with: HOM 125

Elementary harmony, form and counterpoint through writing and listening. For non-majors and music theatre majors only.

### MTC 126 Introductory Music Theory 3 Y

Elementary harmony, form and counterpoint through writing and listening. For non-majors and music theatre majors only.

### MTC 145 Diatonic Harmony I 3 Y

Music fundamentals. Elementary counterpoint. Basic principles of diatonic harmony, voice leading and analysis. All diatonic triads and their inversions. Primarily for music majors.

### MTC 146 Diatonic Harmony II 3 Y

Diatonic harmony and voice leading continued. Seventh chords. Nonharmonic tones. Common chord modulation. Melody harmonization. Analysis of music literature. PREREQ: MTC 145.

### MTC 147 Ear Training I 1 Y

Sight singing with diatonic melodies. Rhythmic reading and dictation with simple and compound meter. Melodic and harmonic dictation using all diatonic triads and their inversions.

### MTC 148 Ear Training II 1 Y

Sight singing with diatonic melodies continued. Rhythmic reading and dictation with triplet subdivisions, hemiola, and syncopation. Melodic and harmonic dictation using seventh chords and non-harmonic tones. PREREQ: MTC 147.

### MTC 155 Composition I 1-2 S

Introductory composition. Exploration of contemporary compositional methods, emphasizing solo works and works for small ensembles. Open to students with evidence of previous compositional experience. Required of music students planning to major in composition. Permission of instructor

### MTC 156 Composition I 1-2 S

Introductory composition. Exploration of contemporary compositional methods, emphasizing solo works and works for small ensembles. Open to students with evidence of previous compositional experience. Required of music students planning to major in composition. Permission of instructor

### MTC 225 Sight-singing for Non Music Majors I 1

Sight-singing; diatonic melodies, popular songs. Rhythmic reading and dictation with simple and compound meter. Melodic and harmonic dictation using all diatonic triads and their inversions. For non music majors only. PREREQ: MTC 126.

### MTC 226 Sight-singing for Non Music Majors II 1

Continuation of MTC 225. PREREQ: MTC 225.

### MTC 245 Chromatic Harmony I 3 Y

Chromatic harmony and voice leading. Secondary dominants, altered chords and all forms of modulation. Introduction to musical form. Analysis of repertoire through early 19th century. PREREQ: MTC 146.

### MTC 246 Chromatic Harmony II 3 Y

Chromatic harmony continued. Late 19th century chromaticism, 20th century methods. Analysis of repertoire from 19th and 20th centuries. PREREQ: MTC 245.

MTC 247 Ear Training III 1 Y  
Sight singing melodies with chromatic alterations and modulation. Rhythmic reading and dictation with quintuplet and septuplet subdivisions. Melodic and harmonic dictation using secondary dominants, altered chords and modulation.  
PREREQ: MTC 148.

MTC 248 Ear Training IV 1 Y  
Sight singing and dictation with highly chromatic and nontonal melodies. Rhythmic reading and dictation with complex meter and changes in meter. Melodic and harmonic dictation using nontonal harmony.  
PREREQ: MTC 247.

MTC 255 Composition II 1-2 Y  
Continuation of Composition I. Primarily for students planning to major in composition.  
PREREQ: MTC 155 AND 156.

MTC 256 Composition II 1-2 Y  
Continuation of Composition I. Primarily for students planning to major in composition.  
PREREQ: MTC 155 AND 156.

MTC 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MTC 355 Composition III 1-4 S  
Advanced composition with emphasis on larger forms and works for larger ensembles. Open only to composition majors.  
PREREQ: MTC 155 AND 156 AND 255 AND 256.

MTC 356 Composition III 1-4 S  
Advanced composition with emphasis on larger forms and works for larger ensembles. Open only to composition majors.  
PREREQ: MTC 155 AND 156 AND 255 AND 256.

MTC 380 International Course 1-12  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

MTC 400 Selected Topics 1-3 SI  
Exploration of topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

MTC 410 Undergraduate Teaching Experience 0-2  
Students teach help sections of undergraduate theory classes. Meet with professor to discuss pedagogy and techniques. Register for one credit for each two hours with students. Does not satisfy upper division theory elective requirement.  
PREREQ: MTC 246 AND 248.

MTC 417 Instrumentation 2 IR  
Ranges and idiomatic uses of band and orchestral instruments. Elementary scoring for band and orchestra with reference to typical instrumental groups available in schools.

MTC 418 Choral Arranging 2 IR  
Ranges and idiomatic uses of wind, percussion, and string instruments in bands and orchestras and of voices in choral ensembles and choirs. Elementary scoring for choral combination instrumental and choral groups.

MTC 455 Composition IV 2-4 S  
Preparation of works sufficient in scope and technical advancement for senior recital. Open to senior composition majors.

MTC 456 Composition IV 2-4 S  
Preparation of works sufficient in scope and technical advancement for senior recital. Open to senior composition majors.

MTC 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

MTC 500 Workshop In Music Theory 1-3 SI  
Selected aspect of music theory. Content and method of instruction may vary for each workshop. R1, 6 credits maximum

MTC 535 Orchestration 3 O  
Scoring for individual instruments and small ensembles. Analysis of selected instrumental compositions.  
PREREQ: MTC 246.

MTC 540 Survey of Basic Theory 1-3 Y  
Review of music fundamentals, tonal harmony, and aural skills. Entering graduate students failing written portion of theory diagnostic exam attend classes on fundamentals and harmony. Those failing aural skills portion attend ear training classes. Passing this course satisfies diagnostic exam requirements. Not applicable to any degree.

MTC 545 Counterpoint 3 SI  
Grounding in species counterpoint and 16th-century practice, moving into a comprehensive study of contrapuntal techniques through the 20th century.  
PREREQ: MTC 246.

MTC 546 Analysis of Contemporary Music 3 Y  
Twentieth-century compositional methods, analysis of selected works. Introduction to 12-tone set theory.  
PREREQ: MTC 246.

MTC 550 Composition 1-2 S  
For students not majoring in composition. Permission of instructor

MTC 551 Songwriting 3 Y  
A comprehensive approach to the craft of popular songwriting. Analysis includes historical perspectives, song form, style, content, lyric writing, lead sheet and demo creation, copyright, recording, and marketing techniques.

MTC 552 Studio Arranging 3 IR  
Scoring and arranging for film, video, and recording. Popular genres. Miking, mixing, overdubbing, studio effects, synchronization with visual media.  
PREREQ: MTC 535.

MTC 554 Jazz Composing and Arranging 3 SI  
Jazz theory. Scoring with standard and nonstandard instrumental voicings. Preparation of charts for big band and smaller ensembles.  
PREREQ: MTC 535.

MTC 555 Jazz Improvisation I 1 S  
Beginning jazz theory; simple harmonic functions. Improvisation with Ionian, Dorian, and Mixolydian modes. Arranging for small ensembles. Permission of instructor.

MTC 556 Jazz Improvisation II 1 S  
Improvisation with II to V progressions, diminished chords, augmented triads, and related scales. Composing and arranging for small ensembles.  
PREREQ: MTC 555.

MTC 557 Jazz Improvisation III 1 S  
Improvisation with half-diminished seventh chord and related scale. Application of improvisational techniques to pop and jazz tunes. Recordings and transcriptions of major artists. Preparation of charts for larger ensembles.  
PREREQ: MTC 556.

MTC 558 Jazz Improvisation IV 1 S  
Improvisation with pentatonic and lydian scales and turn-around patterns. Improvisational principles using chord scales, guide tones, and other techniques. Preparation of charts for larger ensembles.  
PREREQ: MTC 557.

MTC 560 Electronic Music Composition 3 S  
Introduction to techniques, repertoire, and history of electroacoustic/computer generated music. Projects include three compositions for electronic sounds; electronics alone, with soloist, and with small ensemble. Required course for music composition majors. R

MTC 562 Performing with Computers 3 IR  
An exploration of techniques for live performance with computers: interactive, multimedia, installation, DJ and others, using a broad array of software and hardware combinations, focusing on their actual and potential creative uses.

MTC 566 Topics in Music Literature and Analysis 3 Y  
Crosslisted with: MHL 566  
Intensive focus on a composer, genre or stylistic development, to be chosen by the instructor. Emphasis on analytical understanding, aesthetic issues and interdisciplinary context. R2, 12 credits maximum

MTC 590 Independent Study 1-6 SI  
Preparation of a project paper under guidance of a member of the appropriate faculty, who introduces the student to tools of research. Presented for reading and grading to a group of three faculty, one of whom is the advisor.

## Music Education

MUE 115 Technology in Music Education 2  
Examines technology in music education. Computer hardware and software for notation, sequencing, multimedia, computer-assisted instruction, database, and sound editing are discussed. Provides practical understanding of music instrument digital interface, audio, video, Internet navigation, and web page design.

MUE 215 Foundations of Music Education 3 Y  
Philosophy of music teaching. Professional activities and organizations. Current trends. Career opportunities. Personal/professional competency of model teachers. Analysis of prospective teacher's personal/professional goals and competency.

MUE 300 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MUE 310 Field Experience in Music Education 1-2 S  
Double Numbered with: MUE 610  
Orientation to school settings: organization, services, guidance, goals, evaluation. Observations and supervised teaching experiences in music at elementary/secondary levels. Experiences coordinated with music education courses in sophomore/junior years and graduate teacher preparation program. Additional work required of graduate students.  
PREREQ: MUSIC EDUCATION MAJOR. R1, 2 credits maximum

MUE 321 Teaching of Voice for Schools 1-2 Y  
Double Numbered with: MUE 621  
Laboratory in teaching voice, emphasizing performance techniques, care of vocal instrument, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor.

MUE 325 Teaching of String Instruments 1-2 Y  
Double Numbered with: MUE 625  
Laboratory in string instruments, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstrations of methods and materials for individual/group instruction. Upper-division status or permission of instructor. R2, 4 credits maximum

MUE 326 Teaching of Brass Instruments 1-2 Y  
Double Numbered with: MUE 626  
Laboratory in brass instruments, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor. R1, 4 credits maximum

MUE 327 Teaching of Woodwind Instruments I 1-2 Y  
Double Numbered with: MUE 627  
Laboratory in flute, clarinet, and saxophone, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor.

MUE 328 Teaching of Woodwind Instruments II 1-2 Y  
Double Numbered with: MUE 628  
Laboratory in oboe and bassoon, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor.

MUE 333 Music in the Elementary School 1-2 Y  
Double Numbered with: MUE 633  
Methods and materials for elementary school music programs. Laboratory experience in teaching songs, rhythms, music listening, sight reading, and the use of visual aids. Orff and Kodaly methods.  
PREREQ: MINIMUM JUNIOR STANDING.

MUE 334 Methods and Materials in General Music 1-2 Y  
Double Numbered with: MUE 634  
Methods and resources for grades 6-12 in nonperformance music classes. History, theory, general music. The changing voice. Upper-division status or permission of instructor.

MUE 400 Selected Topics 1-3  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MUE 415 Jazz Ensemble Techniques 2  
Double Numbered with: MUE 617

MUE 416 Psychological and Sociological Aspects of Music 2-3 IR  
Introduction to psychophysiological and sociophysiological processes involved in musical behavior. For non-music majors: permission of instructor.

MUE 423 Teaching of Percussion Instruments 1-2 Y  
Double Numbered with: MUE 623  
Laboratory in percussion instruments, emphasizing performance techniques, care of instruments, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper-division status or permission of instructor.

MUE 431 Mngmt in Music Teaching 1-2 Y  
Double Numbered with: MUE 731

MUE 435 Choral Rehearsal Techniques 2-3 Y  
Double Numbered with: MUE 735  
Principles and techniques of conducting and rehearsing choral groups. Music literature for typical choral group in schools.

MUE 437 Instrumental Rehearsal Techniques in Music Education 2-3 Y  
Double Numbered with: MUE 737  
Principles and techniques of conducting and rehearsing instrumental groups. Music literature for typical instrumental groups in schools.

MUE 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

MUE 510 Practicum in Children's Choir 1-3  
Develop understanding, expertise, and practical experience working with a children's choir through score analysis, rehearsal observations, and conducting experiences. In-depth study of choral music appropriate for children's choirs of varying levels.

MUE 516 Technology in Music Education 3  
Philosophical foundation for marching bands. Lecture/lab format promoting discussion and practical application of skills necessary to organize, administer, and implement the high school band program successfully.

MUE 518 Marching Band Techniques 2 Y  
Philosophical foundation for marching bands. Lecture/lab format promoting discussion and practical application of skills necessary to organize, administer, and implement the high school band program successfully. Music education majors or permission of instructor.

MUE 520 Teaching of Classical Guitar 1-2  
Laboratory in guitar, emphasizing performance techniques, care of instrument, acoustical considerations, elementary ensemble performance, and practical demonstration of methods and materials for individual/group instruction. Upper division status or permission of instructor. Music majors only.

## Music Industry

MUI 10 Soyars Entertainment Leadership Lecture Series I 0  
Features music industry leaders from the highest levels of business. These visiting faculty members will focus, in depth, on cutting edge issues as they relate to leadership in today's industry. R6

MUI 103 Music Industry Forum 0 S  
New ideas, problems, issues, and trends are presented and discussed by scholars, local experts, and national leaders in the music industry. Music industry major or permission of instructor.

MUI 104 Music Industry Forum 0 S  
New ideas, problems, issues, and trends are presented and discussed by scholars, local experts, and national leaders in the music industry. Music industry major or permission of instructor.

MUI 106 Survey of the Music Industry 2 Y  
Creative and business aspects of industry. Historical/sociological aspects, recording, songwriting, publishing, copyright, performing rights, mechanical rights, performing artist, record companies, production, marketing, merchandising, mass media, and industry hardware.

MUI 203 Music Industry Forum 0 S  
New ideas, problems, issues, and trends are presented and discussed by scholars, local experts, and national leaders in the music industry. Music industry major or permission of instructor.

MUI 204 Music Industry Forum 0 S  
New ideas, problems, issues, and trends are presented and discussed by scholars, local experts, and national leaders in the music industry. Music industry major or permission of instructor.

MUI 205 Music Industry I 3 S  
Historical, creative, sociological, and business aspects of music publishing, artist management, concert promotion, rights and licensing, agencies, unions and guilds, roles of creative and supporting professionals in each area. Music industry major or permission of instructor.

MUI 206 Music Industry II 3 S  
Historical, creative, sociological, and business aspects of the recording industry, music management, arts advocacy, and concert music. Roles of creative and supporting professionals in each area. Music industry major or permission of instructor.  
PREREQ: MUI 205.

MUI 301 Record Production 3  
The aesthetic and creative aspects of the record producer's role in crafting hits in collaboration with artist and repertoire personnel and the audio engineering team. Includes critical listening, the art of recording and the associated technologies and overviews of the creative process.

MUI 303 Music Industry Forum 1 S  
New ideas, problems, issues, and trends are presented and discussed by scholars, local experts, and national leaders in the music industry. Music industry major or permission of instructor.

MUI 304 Music Industry Forum 1 S  
New ideas, problems, issues, and trends are presented and discussed by scholars, local experts, and national leaders in the music industry. Music industry major or permission of instructor.

MUI 305 Music Industry and the Media 3 Y  
Articles, advertising, and the media in public relations. Role of the artist, public relations representative, advertising company executive, and program director. Application of communication skills to professional tasks.  
PREREQ: MUI 205 AND 206.

MUI 307 Studio Recording 3 Y  
Theoretical, practical and creative aspects of current audio engineering practices. Recording studio design and acoustics, microphone theory, digital recording, mixing, editing and mastering. Extensive experience working in a modern music recording studio.

MUI 308 Live Sound and Concert Recording 3 Y  
Fundamentals and techniques of live sound recording. Acoustics and microphone placement. Editing, mastering duplication, and packaging. Emphasis on recording concert music. Recording and archival projects.  
PREREQ: MUI 307.

MUI 309 Studio Acoustics 3 Y  
Music studio acoustics; quantities and units; principles of sound propagation; sound absorption; psychological acoustics; noise measurement; and specification; and specification of sound insulation.  
PREREQ: MAT 295 AND PHY 211.

MUI 310 Soyars Leadership Lecture Series 1  
Double Numbered with: MUI 610  
Features music industry leaders from the highest levels of the business. These visiting faculty members will focus, in depth, on cutting edge issues as they relate to leadership in today's industry. Additional work required of graduate students. R7, 8 credits maximum

MUI 320 Syracuse University Recordings 1-3  
Students operate university-owned music enterprises; producing and releasing recorded music; booking and promoting concerts, publishing and managing artists, etc. The structures of comparable commercial entities are examined. Permission of instructor. R3, 9 credits maximum

MUI 321 Concert Recording I 2 Y  
Fundamental concepts of live concert recording and sound reinforcement.

MUI 322 Concert Recording II 2 Y  
Advanced concepts of live concert recording and sound reinforcement.

MUI 400 Selected Topics 1-3 SI  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MUI 402 Current State of the Music Industry 2 S  
Assigned projects requiring individual preparation and presentation. Emphasis on the current state of the music industry with implications for the future. Projects require interaction with local experts and national leaders.  
PREREQ: MUI 205 AND 206 AND 305 AND 405 AND SENIOR LEVEL.

MUI 403 Music Industry Forum 1 S  
New ideas, problems, issues, and trends are presented and discussed by scholars, local experts, and national leaders in the music industry. Music industry major or permission of instructor.

MUI 404 Music Industry Forum 1 S  
New ideas, problems, issues, and trends are presented and discussed by scholars, local experts, and national leaders in the music industry. Music industry major or permission of instructor.

MUI 405 Music Industry Law and Ethics 3 S  
Legal aspects of music industry. Ethical considerations for management and artists. Study of domestic and international copyrights, contracts, labor agreements, conflicts of interest, licensing, trade practice regulations, mechanical rights, taxation, privacy, piracy, and payola. Music industry major or permission of instructor.  
PREREQ: MUI 205 AND 206.

MUI 406 Topics in Music Industry 2 S  
Intensive focus on a problem, issue or trend to be chosen by the instructor. Emphasis on technological developments, international music markets, and arts advocacy. Music industry major or permission of instructor.  
PREREQ: MUI 205 AND 206 AND 305 AND 405 AND SENIOR LEVEL.

MUI 408 Music Industry Practicum 1-5 S  
Supervised music industry field experience in which a student's performance is measured against previously stated set of objectives and goals. Permission of Instructor.  
PREREQ: MUI 205 AND 206.

MUI 409 Advanced Digital Audio Workstation Production 3 S  
Exploration of current audio workstation technology. Advanced recording, editing and mixdown in a studio and portable setting. Emphasis on systems design and implementation based on current computing technology.  
PREREQ: MUI 307.

MUI 411 Recording Studio Management I 2 Y  
Fundamental concepts of recording studio management, training and maintenance.

MUI 412 Recording Studio Management II 2 Y  
Advanced concepts of recording studio management, training and maintenance.  
PREREQ: MUI 411.

MUI 414 Music Technology Practicum 2 Y  
Supervised capstone recording project.

MUI 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

## Museum Studies

MUS 405 Print Curatorship 3 SI  
Double Numbered with: MUS 705  
The origins and development of printmaking media are highlighted. Emphasizing the study of original prints by Durer, Rembrandt, Whistler, Picasso, and Rauschenberg in the University Art Collection. Additional work required of graduate students.

MUS 407 Collections Management 3 Y  
Double Numbered with: MUS 607  
Administration and operation of a museum collection, including registration, cataloging, storage techniques, conservation, insurance, shipping, handling. Computer registration, photographic documentation systems, and other information retrieval systems. Laboratory experience in SU Art Collections. Additional work required of graduate students.

MUS 408 Public Learning in Museums 3 Y  
Double Numbered with: MUS 708  
Examine the educational role of museums in society. Study contemporary educational theory, audience development, and accessibility issues within the museum context. Additional work required of graduate students.

MUS 409 Museum Management 3 Y  
Double Numbered with: MUS 709  
Principles of effective leadership; mission, vision, and values; board, staff, executive relationships; civic engagement; assembling workforce; fiscal procedures; budget development. Short and long term goals planning. Direct experience with local museum professionals. Additional work required of graduate students.

MUS 412 Museum Development 3 Y

Double Numbered with: MUS 712

Understanding philanthropy and the fundamentals of successful fundraising, articulating a case for support, building endowment, capital campaigns, special events, planned giving, corporate and foundational support, practicing stewardship, the development profession. Additional work required of graduate students.

MUS 500 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

MUS 503 Introduction to Museum Studies 3 Y

The museum's historical development and its role in modern society. Curatorial methodologies, research techniques, professional ethics, and effective writing. Permission of instructor

MUS 504 Administrative Challenge and Change in Museums 3 SS

Organizational change and current practice will be explored through visits to New York City museums and galleries. Presentations will be given by museum professionals.

MUS 506 Introduction to Curatorship 3 Y

Problems and responsibilities of the curator. Care, interpretation, and presentation of objects. Exhibition programming, history of collecting, curatorial ethics. Permission of instructor

## Oboe

OBO 130 Oboe Instruction 1-4 S  
For non-music students.

OBO 135 Oboe Instruction 1-4 S  
For music students.

OBO 136 Oboe Instruction 1-4 S  
For music students.

OBO 230 Oboe Instruction 1-4 S  
For non-music students.

OBO 235 Oboe Instruction 1-4 S  
For music students.

OBO 236 Oboe Instruction 1-4 S  
For music students.

OBO 330 Oboe Instruction 1-4 S  
For non-music students.

OBO 335 Oboe Instruction 1-4 S  
For music students.

OBO 336 Oboe Instruction 1-4 S  
For music students.

OBO 339 Performance Honors in Oboe 1-4 S

OBO 430 Oboe Instruction 1-4 S  
For non-music students.

OBO 435 Oboe Instruction 1-4 S  
For music students.

OBO 436 Oboe Instruction 1-4 S  
For music students.

OBO 439 Performance Honors in Oboe 1-4 S

OBO 530 Oboe Instruction 1-4 S  
For non-music students.

OBO 535 Oboe Instruction 1-4 S  
For music students.

OBO 536 Oboe Instruction 1-4 S  
For music students.

## Organ

ORG 110 Organ Instruction 1-4 S  
For non-music students.

ORG 115 Organ Instruction 1-4 S  
For music students.

ORG 116 Organ Instruction 1-4 S  
For music students.

ORG 210 Organ Instruction 1-4 S  
For non-music students.

ORG 215 Organ Instruction 1-4 S  
For music students.

ORG 216 Organ Instruction 1-4 S  
For music students.

ORG 310 Organ Instruction 1-4 S  
For non-music students.

ORG 315 Organ Instruction 1-4 S  
For music students.

ORG 316 Organ Instruction 1-4 S  
For music students.

ORG 319 Performance Honors in Organ 1-4 S

ORG 410 Organ Instruction 1-4 S  
For non-music students.

ORG 415 Organ Instruction 1-4 S  
For music students.

ORG 416 Organ Instruction 1-4 S  
For music students.

ORG 419 Performance Honors in Organ 1-4 S

ORG 510 Organ Instruction 1-4 S  
For non-music students.

ORG 515 Organ Instruction 1-4 S  
For music students.

ORG 516 Organ Instruction 1-4 S  
For music students.

## Pedagogy Of Theory

PDG 519 Vocal Pedagogy 2 Y

Voice science: structure of the vocal tract, acoustics, special equipment. Voice building: breath management, positioning of vocal tract, registration, placement, voice types, exercises. Laboratory experience. Four semesters of applied voice.

PDG 520 Piano Pedagogy Workshop 1 IR  
Philosophy and psychology in piano teaching through analysis and performance of elementary and secondary materials. Music by recognized composers.

PDG 522 Vocal Pedagogy II 2 Y

Reinforcement of concepts and literature introduced in PDG 519. Emphasises appropriate song/operatic literature used in teaching voice, hands-on teaching non-voice majors. Introduction to Voce Vista and pedagogical technology.  
PREREQ: PDG 519.

PDG 527 Piano Pedagogy 2 IR

Philosophies and psychology of piano teaching. Materials for beginning and intermediate students in both individual and class teaching. Additional work required of graduate students.

PDG 530 Workshop in Teaching of Strings 1-2 IR

Principles, methods, and problems associated with teaching string instruments to young people individually and in groups. R

PDG 538 Violin Pedagogy 1 IR

Violin teaching: lecture on procedure for both class and individual instruction, attendance and observation at regular class meetings, and practical teaching by pedagogy students.

## Piano

PNO 120 Piano Instruction 1-4 S  
For non-music students. RI, 4 credits maximum

PNO 121 Keyboard Skills I 1 S  
Development of technique and proficiency; to strengthen theory, ear training, and keyboard harmony skills. Placement audition.

PNO 122 Keyboard Skills I 1 S  
Development of technique and proficiency; to strengthen theory, ear training, and keyboard harmony skills. Placement audition.

PNO 125 Piano Instruction 1-4 S  
For music students.

PNO 126 Piano Instruction 1-4 S  
For music students.

PNO 220 Piano Instruction 1-4 S  
For non-music students.

PNO 221 Keyboard Skills II 1 S  
Development of technique and proficiency; to strengthen theory, ear training, and keyboard harmony skills. Placement audition.

PNO 222 Keyboard Skills II 1 S  
Development of technique and proficiency; to strengthen theory, ear training, and keyboard harmony skills. Placement audition.

PNO 225 Piano Instruction 1-4 S  
For music students.

PNO 226 Piano Instruction 1-4 S  
For music students.

PNO 320 Piano Instruction 1-4 S  
For non-music students.

PNO 325 Piano Instruction 1-4 S  
For music students.

PNO 326 Piano Instruction 1-4 S  
For music students.

PNO 329 Performance Honors in Piano 1-4 S

PNO 420 Piano Instruction 1-4 S  
For non-music students.

PNO 425 Piano Instruction 1-4 S  
For music students.

PNO 426 Piano Instruction 1-4 S  
For music students.

PNO 429 Piano/Perform Honors 1-4 S

PNO 520 Performance Honors in Piano 1-4 S  
For non-music students.

PNO 525 Piano Instruction 1-4 S  
For music students.

PNO 526 Piano Instruction 1-4 S  
For music students.

## Percussion

PRC 110 Percussion Instruction 1-4 S  
For non-music students.

PRC 115 Percussion Instruction 1-4 S  
For music students.

PRC 116 Percussion Instruction 1-4 S  
For music students.

PRC 210 Percussion Instruction 1-4 S  
For non-music students.

PRC 215 Percussion Instruction 1-4 S  
For music students.

PRC 216 Percussion Instruction 1-4 S  
For music students.

PRC 310 Percussion Instruction 1-4 S  
For non-music students.

PRC 315 Percussion Instruction 1-4 S  
For music students.

PRC 316 Percussion Instruction 1-4 S  
For music students.

PRC 319 Performance Honors in Percussion 1-4 S

PRC 410 Percussion Instruction 1-4 S  
For non-music students.

PRC 415 Percussion Instruction 1-4 S  
For music students.

PRC 416 Percussion Instruction 1-4 S  
For music students.

PRC 419 Performance Honors in Percussion 1-4 S

PRC 510 Percussion Instruction 1-4 S  
For non-music students.

PRC 515 Percussion Instruction 1-4 S  
For music students.

PRC 516 Percussion Instruction 1-4 S  
For music students.

## Printmaking

PRT 251 Printmaking: Introductory Intaglio 3 Y  
Crosslisted with: DRW 251  
Etching, drypoint, aquatint, and a variety of experimental approaches to plate making and printing. Experience in drawing and two-dimensional problem solving.

PRT 253 Printmaking: Introductory Lithography 3 Y  
Crosslisted with: DRW 253  
Basic technical processes of stone lithography, drawing to editioning. All aspects of direct drawing and transfer methods, etching, and printing processes. Experience in drawing and two-dimensional problem solving.

PRT 255 Printmaking: Introductory Serigraphy 3 Y  
Crosslisted with: DRW 255  
Papercut stencil, handcut stencil, photographic kodalith and film-positive photo stencil, various experimental techniques, and ink formulas. Drawing and two-dimensional problem solving.

PRT 257 Printmaking: Introductory Relief 3 Y  
Crosslisted with: DRW 257  
Investigation of the process. Cutting and printing the raised surface of various materials, including wood, linoleum, plaster, masonite, and boxwood. Experience in drawing and two-dimensional problem solving.

PRT 351 Printmaking, Intermediate Workshop 3 Y  
Crosslisted with: DRW 351  
Individual development in one or more printing processes: relief, intaglio, lithography, silk screen. Problem solving through drawing and development of imagery.

PRT 352 Printmaking, Intermediate Workshop 3 Y  
Crosslisted with: DRW 352  
Individual development in one or more printing processes: relief, intaglio, lithography, silk screen. Problem solving through drawing and development of imagery.

PRT 430 Senior Portfolio and Research Paper: Printmaking 3 SI  
Required of seniors in printmaking. Topics can be historical, critical, or process-related. Senior thesis exhibition required and presented final semester of senior year.

PRT 451 Printmaking: Advanced Workshop 3 Y  
Crosslisted with: DRW 451  
Individual research. One or more processes, emphasizing color printing and integration of advanced printmaking methods and materials. Resolution of concept and imagery through drawing and problem-solving skills.

PRT 452 Printmaking: Advanced Workshop 3 Y

Crosslisted with: DRW 452

Individual research. One or more processes, emphasizing color printing and integration of advanced printmaking methods and materials. Resolution of concept and imagery through drawing and problem-solving skills.

PRT 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

PRT 551 Hand Papermaking Workshop 3 Y

Basic skills in hand papermaking in two- and three-dimensional form. Student works independently but attends group demonstrations and discussions on scheduled day of class.

PRT 552 Hand Paper Print/Book Workshop 3 Y

Continued investigation in hand papermaking, simple bookbinding, and letterpress printing.

## Painting

PTG 203 Painting and Drawing for Non-Art Majors 1-3 S

Crosslisted with: DRW 203

Fundamental concepts for techniques of painting and drawing. Open to non-art students only. May not be used for credit toward B.F.A. except by petition to Department of Studio Arts.

PTG 204 Painting and Drawing for Non-Art Majors 1-3 S

Crosslisted with: DRW 204

Fundamental concepts for techniques of painting and drawing. Open to non-art students only. May not be used for credit toward B.F.A. except by petition to Department of Studio Arts.

PTG 255 Figure Drawing 2-3 S

Crosslisted with: DRW 245

Human figure as subject and tool for drawing ideas. Figure composition, historical significance, drawing media.

PREREQ: FND 113 OR 114.

PTG 256 Figure Drawing 2-3 S

Crosslisted with: DRW 246

Human figure as subject and tool for drawing ideas. Figure composition, historical significance, drawing media.

PREREQ: FND 113 OR 114.

PTG 281 Introductory Painting 2-3 Y

Figurative and nonfigurative painting in oils or acrylics as the basis for study of color and form. Materials and approaches.

PREREQ: FND 113 OR 114.

PTG 282 Introductory Painting 2-3 Y

Figurative and nonfigurative painting in oils or acrylics as the basis for study of color and form. Materials and approaches.

PREREQ: FND 113 OR 114.

PTG 283 Painting, Figure and Portrait 2-3 IR

Nude and costumed figure study, portrait painting. Painting media.

PREREQ: FND 113 OR 114.

PTG 284 Painting, Figure and Portrait 2-3 IR

Nude and costumed figure study, portrait painting. Painting media.

PREREQ: FND 113 OR 114.

PTG 285 Color and Pictorial Design 3 SI

Organization of pictorial ideas and form. Use of various painting media. Color, its perception, function, and application.

PTG 300 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

PTG 353 Anatomy 3 IR

Crosslisted with: DRW 353

The skeleton, construction of the human body, and interpretation in drawing.

PREREQ: FND 113 OR 114.

PTG 354 Anatomy 3 IR

Crosslisted with: DRW 354

The skeleton, construction of the human body, and interpretation in drawing.

PREREQ: FND 113 OR 114.

PTG 355 Intermediate Drawing 2-3 S

Crosslisted with: DRW 355

Continuing development of critical awareness through exploration of ideas and media. Components of pictorial structure and expression.

PREREQ: PTG 255 OR 256.

PTG 356 Intermediate Drawing 2-3 S

Crosslisted with: DRW 356

Continuing development of critical awareness through exploration of ideas and media. Components of pictorial structure and expression.

PREREQ: PTG 255 OR 256 AND PTG 355.

PTG 357 Nature Drawing 3 SI

Forms in nature and research in the design of natural forms.

PREREQ: FND 113 OR 114.

PTG 358 Nature Drawing 3 SI

Forms in nature and research in the design of natural forms.

PREREQ: FND 113 OR 114.

PTG 381 Intermediate Painting 3 S

Continuation of PTG 281,282. Problems in pictorial organization in oil, acrylics, and related materials. Historical and personal understanding of pictorial intention.

PREREQ: PTG 281 AND 282.

PTG 382 Intermediate Painting 3 S

Continuation of PTG 281,282. Problems in pictorial organization in oil, acrylics, and related materials. Historical and personal understanding of pictorial intention.

PREREQ: PTG 281 AND 282.

PTG 385 Painting Materials and Techniques 3 IR

Pigments, grounds, media, and methods of painting. Lectures and laboratory.

PTG 387 Watercolor 2-3 S

Still life, interior, and landscape painting in watercolor.

PREREQ: FND 113 OR 114.

PTG 388 Watercolor 2-3 S

Still life, interior, and landscape painting in watercolor.

PREREQ: FND 113 OR 114.

PTG 455 Advanced Drawing 2-3 Y

Crosslisted with: DRW 455

Historical awareness. Relation of drawing to major areas of study. Philosophical development in the use of personal imagery and techniques.

PREREQ: PTG 355 OR 356.

PTG 456 Advanced Drawing 2-3 Y

Crosslisted with: DRW 456

Historical awareness. Relation of drawing to major areas of study. Philosophical development in the use of personal imagery and techniques.

PREREQ: PTG 355 AND 356.

PTG 481 Advanced Painting 3 S

Continued studio development of ideas objectives, self-critical attitude, and approach to painting.

PREREQ: PTG 381 AND 382.

PTG 482 Advanced Painting 3 S  
Continued studio development of ideas  
objectives, self-critical attitude, and approach  
to painting.  
PREREQ: PTG 381 AND 382.

PTG 485 Advanced Pictorial Design 3 IR  
Independent research.  
PREREQ: PTG 285.

PTG 487 Landscape Painting 3 SI  
Outdoor painting in oil. Composition  
problems.  
PREREQ: PTG 281 AND 282.

PTG 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project  
under the supervision of a faculty member. R2,  
3 credits maximum

PTG 503 Drawing and Painting for Non-  
Art Majors 1-3 S  
Crosslisted with: DRW 503  
Fundamental concepts and techniques of  
painting and drawing.

PTG 504 Drawing and Painting for Non-  
Art Majors 1-3 S  
Crosslisted with: DRW 504  
Fundamental concepts and techniques of  
painting and drawing.

PTG 555 Drawing Research 1-6 S  
Crosslisted with: DRW 555  
Drawing as an expression and creative art  
form.  
PREREQ: PTG 455 OR 456.

PTG 582 Painting Research 1-6 S  
Advanced research.

PTG 585 Painting Materials Techniques  
1-3 IR  
Advanced study in use of studio materials and  
techniques used by painters; pigments, binders,  
for oil paint, acrylics, polymer resins, casein,  
pastels, water color, egg tempera, fresco.  
Independent research problems are assigned.

### Recording And Allied Entertainment

RAE 300 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not  
covered by the standard curriculum but of  
interest to faculty and students in a particular  
semester.

RAE 404 Social Media for the Music  
Business 3 Y  
The objective of this course is to provide  
exposure to the use and management of social  
media, including strategies for applying social  
media to the promotion, distribution and sale  
of music and entertainment.

RAE 408 Entertainment Industry  
Practicum 1-3 Y  
Supervised Entertainment Industry field  
experience in which a student's performance is  
measured against a previously stated set of  
objectives and goals. R5, 18 credits maximum

RAE 411 Global Commerce and Law for  
the Music Entertainment Industry 3 Y  
A global overview of music industry law for  
entertainment business students. Issues,  
treaties, court cases, contracts and the  
mechanics of international commerce.

RAE 444 Law for The Music &  
Entertainment Industries 3 Y  
Introduction to music and entertainment  
industry law. Students study the legal role in  
recording, publishing, artist management, live  
music, licensing for film/tv.

RAE 470 Experience Credit 1-6  
Participation in a discipline or subject related  
experience. Student must be evaluated by  
written or oral reports or an examination.  
Permission in advance with the consent of the  
department chairperson, instructor, and dean.  
Limited to those in good academic standing.

RAE 490 Independent Study 1-6  
Exploration of a problem, or problems, in  
depth. Individual independent study upon a  
plan submitted by the student. Admission by  
consent of supervising instructor(s) and the  
department. R

RAE 499 Honors Capstone Project 1-3  
Completion of an Honors Capstone Project  
under the supervision of a faculty member. R

RAE 500 Selected Topics 1-3 IR  
Exploration of a topic (to be determined) not  
covered by the standard curriculum but of  
interest to faculty and students in a particular  
semester. R

RAE 505 Entertainment Industry  
Exploration 1-3 Y  
Each student determines their own  
personalized path of learning in a structured  
mentored academic environment with an  
emphasis on any and all aspects of the  
entertainment industry. R3, 12 credits  
maximum

### Recorder

RDR 120 Recorder Instruction 1-4 S  
For non-music students.

RDR 125 Recorder Instruction 1-4 S  
For music students.

RDR 126 Recorder Instruction 1-4 S  
For music students.

RDR 220 Recorder Instruction 1-4 S  
For non-music students.

RDR 225 Recorder Instruction 1-4 S  
For music students.

RDR 226 Recorder Instruction 1-4 S  
For music students.

RDR 320 Recorder Instruction 1-4 S  
For non-music students.

RDR 325 Recorder Instruction 1-4 S  
For music students.

RDR 326 Recorder Instruction 1-4 S  
For music students.

RDR 329 Performance Honors in  
Recorder 1-4 S

RDR 420 Recorder Instruction 1-4 S  
For non-music students.

RDR 425 Recorder Instruction 1-4 S  
For music students.

RDR 426 Recorder Instruction 1-4 S  
For music students.

RDR 429 Performance Honors in  
Recorder 1-4 S

RDR 520 Recorder Instruction 1-4 S  
For non-music students.

RDR 525 Recorder Instruction 1-4 S  
For music students.

RDR 526 Recorder Instruction 1-4 S  
For music students.

### Sculpture

SCU 207 Sculpture Survey 3 S  
Mold making, clay modeling; composition  
problems in three dimensions with several  
sculpture media. For non-art students.

SCU 208 Sculpture Survey 3 S  
Mold making, clay modeling; composition  
problems in three dimensions with several  
sculpture media. For non-art students.

SCU 280 International Course 1-12 SI  
Offered through SUAbroad by educational  
institution outside the United States. Student  
registers for the course at the foreign  
institution and is graded according to that  
institution's practice. SUAbroad works with  
the S.U. academic department to assign the  
appropriate course level, title, and grade for  
the student's transcript. R

SCU 295 Introductory Sculpture 2-3 S  
Mold making, clay modeling; composition problems in three dimensions with several sculpture media.

SCU 296 Introductory Sculpture 2-3 S  
Mold making, clay modeling; composition problems in three dimensions with several sculpture media.

SCU 300 Selected Topics 1-3  
Kinetic Aesthetic R

SCU 391 Wood and Mixed-Media Research 1-9 S  
Double Numbered with: SCU 591  
Sculptural uses of wood. Lathe work, lamination, and carving. Combination of wood and other sculptural materials. Individual research in conjunction with course expectations for students taking SCU 591.

SCU 392 Plastics Techniques Research 1-9 S  
Double Numbered with: SCU 592  
Plastics and their potential sculptural uses. Vacuum-formed plastic sheet, casting resins, and fiberglass lay-up. Individual research in conjunction with course expectations for students taking SCU 592.

SCU 395 Intermediate Sculpture 2-3 S  
Direct carving in stone and wood. Introduction to casting. Modeling, advanced composition problems.  
PREREQ: SCU 295 AND 296.

SCU 396 Intermediate Sculpture 2-3 S  
Direct carving in stone and wood. Introduction to casting. Modeling, advanced composition problems.  
PREREQ: SCU 295 AND 296.

SCU 495 Advanced Sculpture 3 S  
Advanced research.  
PREREQ: SCU 395 AND 396.

SCU 496 Advanced Sculpture 3 S  
Advanced research.  
PREREQ: SCU 395 AND 396.

SCU 499 Honors Capstone Project 1-3 S  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

SCU 507 Sculpture Survey 1-9 S  
Modeling from life, casting, composition problems.  
PREREQ: SCU 207 AND 208.

SCU 508 Sculpture Survey 1-9 S  
Modeling from life, casting, composition problems.  
PREREQ: SCU 207 AND 208.

SCU 591 Wood and Mixed-Media Research 1-9 S  
Double Numbered with: SCU 391  
Sculptural uses of wood. Lathe work, lamination, and carving. Combination of wood and other sculptural materials. Individual research in conjunction with course expectations for students taking SCU 591.

SCU 592 Plastics Techniques Research 1-9 S  
Double Numbered with: SCU 392  
Plastics and their potential sculptural uses. Vacuum-formed plastic sheet, casting resins, and fiberglass lay-up. Individual research in conjunction with course expectations for students taking SCU 592.

SCU 596 Sculpture Research 1-9 S  
Advanced research.  
PREREQ: SCU 295 AND 296.

### Surface Pattern Design

SPD 245 Creative Media and Design Techniques 3  
Traditional and experimental techniques used to render in a variety of media, including photographic imagery, texturing, faux, and botanicals for conceptual design studies.

SPD 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

SPD 527 Advanced Textile Printing 3  
Individual research of advanced dyeing and printing methods.  
PREREQ: T^XT 314.

### Studio Arts

STA 321 Flat (Stained) Glass Workshop 3 IR  
Glass cutting and basic construction skills covered with emphasis on original design. Color theory. Projects include conventional and contemporary methods of flat glass design and construction. Experimentation with traditional and innovative material and fabrication.

STA 350 Introduction to Glass Casting, Fusing and Slumping 3 IR  
Hot glass course focusing on casting, fusing, and slumping techniques. Materials include a rich palette of sheet glass, frits, stringers, powders, confetti, and cullet. Introduction to design and firing techniques.

### Saxophone

SXP 150 Saxophone/Non Music Maj 1-4 S  
For non-music students.

SXP 155 Saxophone/Music Majors 1-4 S  
For music students.

SXP 156 Saxophone/Music Majors 1-4 S  
For music students.

SXP 250 Saxophone/Non Music Maj 1-4 S  
For non-music students.

SXP 255 Saxophone/Music Majors 1-4 S  
For music students.

SXP 256 Saxophone/Music Majors 1-4 S  
For music students.

SXP 350 Saxophone/Non Music Maj 1-4 S  
For non-music students.

SXP 355 Saxophone/Music Majors 1-4 S  
For music students.

SXP 356 Saxophone/Music Majors 1-4 S  
For music students.

SXP 359 Saxophone/Perform Honors 1-4 S

SXP 450 Saxophone/Non Music Maj 1-4 S  
For non-music students.

SXP 455 Saxophone/Music Majors 1-4 S  
For music students.

SXP 456 Saxophone/Music Majors 1-4 S  
For music students.

SXP 459 Saxophone/Perform Honors 1-4 S

SXP 550 Saxophone/Non Music Maj 1-4 S  
For non-music students.

SXP 555 Saxophone/Music Majors 1-4 S  
For music students.

SXP 556 Saxophone/Music Majors 1-4 S  
For music students.

### Trombone

TRB 140 Trombone/Non Music Majors 1-4 S  
For non-music students.

TRB 145 Trombone/Music Majors 1-4 S  
For music students.

TRB 146 Trombone/Music Majors 1-4 S  
For music students.

TRB 240 Trombone/Non Music Majors 1-4 S  
For non-music students.

TRB 245 Trombone/Music Majors 1-4 S  
For music students.

TRB 246 Trombone/Music Majors 1-4 S  
For music students.

TRB 340 Trombone/Non Music Majors 1-4 S  
For non-music students.

TRB 345 Trombone/Music Majors 1-4 S  
For music students.

TRB 346 Trombone/Music Majors 1-4 S  
For music students.

TRB 349 Trombone/Perform Honors 1-4 S

TRB 440 Trombone/Non Music Majors 1-4 S  
For non-music students.

TRB 445 Trombone/Music Majors 1-4 S  
For music students.

TRB 446 Trombone/Music Majors 1-4 S  
For music students.

TRB 449 Trombone/Perform Honors 1-4 S

TRB 540 Trombone/Non Music Majors 1-4 S  
For non-music students.

TRB 545 Trombone/Music Major 1-4 S  
For music students.

TRB 546 Trombone/Music Major 1-4 S  
For music students.

## Transmedia

TRM 151 TransMedia Colloquium (History) 3  
Introduction to the history of the media arts, including artists' use of photography, film, video, and digital media, extending into artists' use of television, audio, radio, the web, video games, and mediated performance.

TRM 152 TransMedia Colloquium (Theory) 3  
Examination of how theory has influenced the way artists use photography, film video, and digital media, extending into artists' use of television, audio, radio, the web, video games, and mediated performance.  
PREREQ: TRM 151.

TRM 153 Studio Concepts 3  
Introduces students to thinking critically and practically about time-based creative practices. Explores the use of digital media in concepts surrounding time/space, image/sound, interactivity/networks, and performance/movement. Students will work with photo, film, video, and computer.

TRM 154 Interconnected Studios 3  
The theory of interdisciplinary practices will be the focus of contemporary art making and intersection of time-based media in animation, interactive technologies, installation, and performance art.  
PREREQ: TRM 153; COREQ: TRM 152.

TRM 251 Intermediate TransMedia Studio 3  
Builds on the basic tools and concepts introduced in TRM 153. Students explore thematic and topical problems in the media arts, while deepening their critical and technical skills.  
PREREQ: TRM 153 AND 154.

TRM 310 Literacy, Community and Media 3  
Double Numbered with: TRM 610  
This course brings University students into local public schools to offer instruction in media such as photography and video, along with writing exercises to develop projects that explore issues of identity, community and family.

TRM 316 Introduction to Visual Culture 3  
Crosslisted with: ART 316, CRS 316  
Introduction to critical approaches that illuminate how modes of visual culture function as rhetoric, commerce, art, and ideological expression. Examines how institutional frameworks shape global image circulation.

TRM 351 Advanced Transmedia Studio 3  
This course will presume a technical ability which allows for more specialized topics of discussion/study. Students will be required to create projects in collaboration, exploring ideas in depth and understanding historical and critical precedents.  
PREREQ: TRM 251.

TRM 401 Physical Computing Research 3  
The use of electronics, computers, and fabrication techniques of various materials for constructing interactive artworks that go beyond keyboard/mouse/screen relationships. Critical theory related to physical computing.  
PREREQ: CAR 132 AND SCU 295 AND 392.

TRM 451 TransMedia Synthesis 3  
Culmination of the transmedia experience for graduating seniors. Projects are intended to increase the self-awareness of artistic vision, honed from the flexibility and diversity of the transmedia curriculum.  
PREREQ: TRM 351.

## Trumpet

TRP 110 Trumpet/Non Music Majors 1-4 S  
For non-music students.

TRP 115 Trumpet/Music Majors 1-4 S  
For music students.

TRP 116 Trumpet/Music Majors 1-4 S  
For music students.

TRP 210 Trumpet/Non Music Majors 1-4 S  
For non-music students.

TRP 215 Trumpet/Music Majors 1-4 S  
For music students.

TRP 216 Trumpet/Music Majors 1-4 S  
For music students.

TRP 310 Trumpet/Non Music Majors 1-4 S  
For non-music students.

TRP 315 Trumpet/Music Majors 1-4 S  
For music students.

TRP 316 Trumpet/Music Majors 1-4 S  
For music students.

TRP 319 Trumpet/Perform Honors 1-6 S

TRP 410 Trumpet/Non Music Majors 1-4 S  
For non-music students.

TRP 415 Trumpet/Music Majors 1-4 S  
For music students.

TRP 416 Trumpet/Music Majors 1-4 S  
For music students.

TRP 419 Trumpet/Perform Honors 1-6 S

TRP 490 Independent Study 1-6 IR  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and department. R

TRP 510 Trumpet/Non Music Majors 1-4 S  
For non-music students.

TRP 515 Trumpet/Music Major 1-6 S  
For music students.

TRP 516 Trumpet/Music Major 1-6 S  
For music students.

## Textiles

**TXT 211 Patterns of Repeat 3 S**  
Study man-made and natural patterns and explore methods of creating repeat and engineered patterns for a variety of design applications. Emphasis on importance of theories of human perception relative to visual repetition.

**TXT 221 Handweaving 3 S**  
Use of the floor loom for exploration of making many kinds of cloth. Focus on color, pattern, texture, and a variety of interlacements of yarn.

**TXT 312 Interior Furnishings 3 Y**  
Double Numbered with: TXT 612  
Design of decorative patterns for residential and commercial interior environments. Emphasis will be on the psychological effects of pattern and color. Specific repeats, rendering and presentation techniques for furnishing appropriate to end-use market production. Additional work required of graduate students.

**TXT 313 Dyework Design 3 Y**  
Students explore a variety of dye applications including Batik, other resist techniques such as folding and stitching, and discharge. There is an emphasis on integrated design of cloth and applications, including garments.

**TXT 314 Textile Handprinting 3 Y**  
Double Numbered with: TXT 614  
Screen printing repetitive and engineered designs on fabric. Design process, color formulas, and screen preparation. Additional work required of graduate students.

**TXT 315 Digital Fabric Printing 3 Y**  
Explores the color, scale and design benefits of digital printing. Student designs become the impetus for learning computer-aided repeat and layout systems of fabric design development for multiple applications.

**TXT 316 Computer-Aided Pattern Design 3 S**  
Double Numbered with: TXT 616  
Digital design for the development of decorative patterns. Motif manipulation, color selection, repeat techniques, and presentation methods. Additional work required of graduate students.

**TXT 322 Dyeing to Weave 3 Y**  
Explore the relationship between dyeing and weaving cloth on the floor loom. Some of the processes include warp-painting, woven shibori and ikat. Natural dyeing with both indigo and other plant materials will be investigated. R1, 6 credits maximum

**TXT 323 Experimental Textiles and Materials 3 S**  
Provides students with experiences of material creation, manipulation, and surface techniques. Explores textile production via technology including machine knitting, digital printing and machine embroidery. Other techniques included as applicable.

**TXT 324 Textiles Synthesis 3 S**  
Double Numbered with: TXT 624  
Focus on experimentation with fibers composition utilizing quilting, appliqué, embroidery, beading, lace-making and other processes. Emphasis on compositional balance of color, form, contrast, texture and imagery. Additional work required of graduate students.

**TXT 325 Interlocking Fibers and Materials 3 S**  
Emphasis on applying techniques to the creation of a pliable plane for a variety of 2-D and 3-D applications. Explorations into traditional and non-traditional materials and processes. R1, 6 credits maximum

**TXT 326 Environmental Textiles 3 Y**  
Double Numbered with: TXT 626  
Focus on processing and manipulation of pliable fibers into three-dimensional forms for wearable or site-specific applications. Students will use various structural supports to create mass and volume. Additional work required of graduate students.

**TXT 327 Textiles in Context 3 Y**  
Double Numbered with: TXT 627  
Research textile parameters from the perspective of student's design specializations. Design and fabricate cloth and finished projects for those applications. Emphasis on creative problem solving and investigating qualities of textiles within different mediums. Additional work required of graduate students. PREREQ: TXT 211 OR 316. R1, 6 credits maximum

**TXT 380 International Course 1-12 IR**  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

**TXT 400 Selected Topics 1-3 IR**  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

**TXT 470 Experience Credit 1-6**  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

**TXT 490 Independent Study 1-6**  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

**TXT 537 Advanced Computer-Aided Pattern Design 3 Y**  
Individual research of advanced computer-aided design methods. R1, 6 credits maximum

## Violoncello

**VCO 130 Cello/Non Music Majors 1-4 S**  
For non-music students.

**VCO 135 Cello/Music Majors 1-4 S**  
For music students.

**VCO 136 Cello/Music Majors 1-4 S**  
For music students.

**VCO 230 Cello/Non Music Majors 1-4 S**  
For non-music students.

**VCO 235 Cello/Music Majors 1-4 S**  
For music students.

**VCO 236 Cello/Music Majors 1-4 S**  
For music students.

**VCO 330 Cello/Non Music Majors 1-4 S**  
For non-music students.

**VCO 335 Cello/Music Majors 1-4 S**  
For music students.

**VCO 336 Cello/Music Majors 1-4 S**  
For music students.

**VCO 339 Cello/Perform Honors 1-4 S**

**VCO 430 Cello/Non Music Majors 1-4 S**  
For non-music students.

**VCO 435 Cello/Music Majors 1-4 S**  
For music students.

**VCO 436 Cello/Music Majors 1-4 S**  
For music students.

**VCO 439 Cello/Perform Honors 1-4 S**

**VCO 530 Cello/Non Music Majors 1-4 S**  
For non-music students.

**VCO 535 Cello/Music Majors 1-4 S**  
For music students.

VCO 536 Cello/Music Majors 1-4 S  
For music students.

## Art Video

VID 211 Video Sketchbook 3 Y  
A medium for perceptual and conceptual development. Most work done exclusively with camcorders. Editing equipment and instruction is available for projects requiring post production.

VID 212 Intro Art Video 3 Y  
A medium for making art. Video works by professional artists are studied, readings are required, specific projects are assigned. Production and post-production skills are refined.  
PREREQ: VID 211.

VID 270 Experience Credit 1-6 SI  
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. R

VID 280 International Course 1-12 IR  
Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript. R

VID 310 Studies in Art Video 3 Y  
Relationship with traditional studio arts, music, cinema, television, computers, telecommunications, and networks. Art video recordings are used to focus and structure explorations of the contemporary media environment. R

VID 311 Intermediate Art Video 3 Y  
Use as a medium for making art. Production and post-production skills are refined. Perceptual and conceptual development informed by contemporary art history and theory.  
PREREQ: VID 212.

VID 312 Intermediate Art Video II 3 Y  
Use as a medium for making art. Production and post-production skills are refined. Perceptual and conceptual development informed by contemporary art history and theory.  
PREREQ: VID 311.

VID 313 Advanced Post-Production Techniques 3 Y  
Double Numbered with: VID 613  
A workshop in audio and video post-production techniques. Specific exercises that structure learning in audio/video relationships. Advanced audio/video techniques are explored. Additional work is required of graduate students. VID 613 is required of Art Video M.F.A. students.  
PREREQ: VID 212.

VID 411 Advanced Art Video 3 Y  
Use of video to produce art informed by contemporary art history and theory. Students produce tapes of significant depth demonstrating technical skills sufficient to support their aesthetic strategies.  
PREREQ: VID 312.

VID 412 Art Video:Thesis Project 3 Y  
Production of a thesis project, most frequently a suite of related tapes, including written conceptual/theoretical analysis.  
PREREQ: VID 411.

VID 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project under the supervision of a faculty member. R2, 3 credits maximum

VID 510 Video Art History 3 Y  
Video art history from the 1960s including the fluxus and art and technology movements, early performance, image processing, installation, and socio-political explorations.

## Viola

VLA 120 Viola/Non Music Majors 1-4 S  
For non-music students.

VLA 125 Viola/Music Majors 1-4 S  
For music students.

VLA 126 Viola/Music Majors 1-4 S  
For music students.

VLA 220 Viola/Non Music Majors 1-4 S  
For non-music students.

VLA 225 Viola/Music Majors 1-4 S  
For music students.

VLA 226 Viola/Music Majors 1-4 S  
For music students.

VLA 320 Viola/Non Music Majors 1-4 S  
For non-music students.

VLA 325 Viola/Music Majors 1-4 S  
For music students.

VLA 326 Viola/Music Majors 1-4 S  
For music students.

VLA 329 Viola/Perform Honors 1-4 S

VLA 420 Viola/Non Music Majors 1-4 S  
For non-music students.

VLA 425 Viola/Music Majors 1-4 S  
For music students.

VLA 426 Viola/Music Majors 1-4 S  
For music students.

VLA 429 Viola/Perform Honors 1-4 S

VLA 520 Viola/Non Music Majors 1-4 S  
For non-music students.

VLA 525 Viola/Music Majors 1-4 S  
For music students.

VLA 526 Viola/Music Majors 1-4 S  
For music students.

## Violin

VLN 110 Violin/Non Music Majors 1-4 S  
For non-music students. R1, 4 credits maximum

VLN 115 Violin/Music Majors 1-4 S  
For music students.

VLN 116 Violin/Music Majors 1-4 S  
For music students.

VLN 210 Violin/Non Music Majors 1-4 S  
For non-music students.

VLN 215 Violin/Music Majors 1-4 S  
For music students.

VLN 216 Violin/Music Majors 1-4 S  
For music students.

VLN 310 Violin/Non Music Majors 1-4 S  
For non-music students.

VLN 315 Violin/Music Majors 1-4 S  
For music students.

VLN 316 Violin/Music Majors 1-4 S  
For music students. R

VLN 319 Violin/Perform Honors 1-4 S

VLN 410 Violin/Non Music Majors 1-4 S  
For non-music students.

VLN 415 Violin/Music Majors 1-4 S  
For music students.

VLN 416 Violin/Music Majors 1-4 S  
For music students.

VLN 419 Violin/Perform Honors 1-4 S

VLN 510 Violin/Non Music Majors 1-4 S  
For non-music students.

VLN 515 Violin/Music Major 1-4 S  
For music students.

VLN 516 Violin/Music Major 1-4 S  
For music students.

### Voice

VOC 110 Voice/Non Music Major 1-4 S  
For non-music students. R1, 4 credits  
maximum

VOC 115 Voice/Music Majors 1-4 S  
For performance majors.

VOC 116 Voice/Music Majors 1-4 S  
For performance majors.

VOC 210 Voice/Non Music Majors 1-4 S  
For non-music students.

VOC 215 Voice/Music Majors 1-4 S  
For performance majors.

VOC 216 Voice/Music Majors 1-4 S  
For performance majors.

VOC 310 Voice/Non Music Major 1-4 S  
For non-music students.

VOC 315 Voice/Music Majors 1-4 S  
For performance majors.

VOC 316 Voice/Music Majors 1-4 S  
For performance majors.

VOC 319 Voice/Perform Honors 1-4 S

VOC 410 Voice/Non Music Majors 1-4 S  
For non-music students.

VOC 415 Voice/Music Majors 1-4 S  
For performance majors.

VOC 416 Voice/Music Major 1-4 S  
For performance majors.

VOC 419 Voice/Perform Honors 1-4 S

VOC 499 Honors Capstone Project 1-3 SI  
Completion of an Honors Capstone Project  
under the supervision of a faculty member. R2,  
3 credits maximum

VOC 510 Voice/Non Music Majors 1-4 S  
For non-music students.

VOC 515 Voice/Music Majors 1-4 S  
For performance majors.

VOC 516 Voice/Music Majors 1-4 S  
For performance majors.

VOC 520 Vocal Coaching 1-2 S  
Private coaching of vocal repertoire for  
singers and pianists. Music majors only. R7, 16  
credits maximum

### VPA

VPA 270 Experience Credit 1-6 SI  
Participation in a discipline or subject related  
experience. Student must be evaluated by  
written or oral reports or an examination.  
Permission in advance with the consent of the  
department chairperson, instructor, and dean.  
Limited to those in good academic standing. R

# Faculty

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James S. Abbott, Part-time Instructor; Audio Engineer  
B.M., University of Miami School of Music, 1992  
Sound Recording Engineering

Yasser Aggour, Associate Professor  
M.F.A., Yale University, 1999  
Art photography

Edward Aiken, Associate Professor  
Ph.D., Northwestern University, 1981  
Art history, museum studies

Joseph Alberti, Assistant Professor  
Ph.D. University of Texas  
Voice and acting

Janet H. Ambrose, Associate Professor  
M.A., Syracuse University, 1990  
Textile design

Karen M. Bakke, Associate Professor  
M.F.A., Syracuse University, 1969  
Textile design, cultural studies

Richard Balestra, Part-time Instructor  
M.M., Ithaca College, 1992  
Jazz Guitar

Kyle Bass, Adjunct  
M.F.A., Goddard College, 2006  
Playwriting, theater history

Cooper Battersby, Assistant Professor  
M.F.A., University of Illinois at Chicago  
Art video TRM core/selected topics

Kathleen Baum, Adjunct  
M.F.A., Syracuse University, 2000  
Movement-based theater, Meyerhold's  
Theatrical Biomechanics

Peter Beasecker, Associate Professor  
M.F.A., Alfred University, 1987  
Ceramics

Richard Beckman, Assistant Professor  
MFA Industrial Design RIT

Sharif Bey, Assistant Professor  
Ph.D., Pennsylvania State University  
Art education

Muriel Bodley, Part-time Instructor  
M.M., SUNY Potsdam Crane School of Music  
Music Education

David Bowman, Adjunct  
B.F.A., Syracuse University, 1993  
Lighting design, theater technology

Kathleen Brandt, Assistant Professor  
M.F.A., Rensselaer Polytechnic Institute

Cornelia Brewster, Part-time Instructor  
M.M., University of Wisconsin-Madison, 1965  
Flute

Janet Brown, Assistant Professor  
M.Mus., Syracuse University, 1993  
Voice, Baroque Ensemble

Yvonne Buchanan, Assistant Professor  
B.F.A., Parsons School of Design, 1977  
Illustration

Michael Bull, Part-time Instructor  
M.M., Syracuse University, 1977  
Percussion, Percussion Ensemble

Robert Bundy, Assistant Professor  
MFA, University of California, San Diego

Deette Bunn, Part-time Instructor  
M.M., University of Washington, 1982  
Harp

Don Buschmann, Adjunct  
M.A., Southwest Missouri State University, 1977  
Advanced practicum in stage management

Richard W. Buttny, Professor  
Ph.D., University of Massachusetts, 1983  
Intercultural communication, language, and social interaction

José Peppie Calvar, Assistant Professor;  
Assistant Director, Choral Activities  
D.M.A., University of South Carolina, 2012  
Hendricks Chapel Choir

Ronald Caravan, Part-time Instructor  
D.M.A., Eastman School of Music, 1980  
Saxophone, Clarinet, Saxophone Ensemble

Donald Carr, Professor  
M.F.A., Cranbrook Academy of Art, 1992  
Industrial and Interaction design

Edward Castilano, Part-time Instructor  
B.M., Eastman School of Music, 1976  
Double Bass

Bonnie Choi, Part-time Instructor  
D.M.A., University of Michigan, 1993  
Harpichord, Piano, Piano Class

Brian Cimmet, Assistant Professor  
B.A., Wesleyan University

Gerardine M. Clark, Laura J. and L.  
Douglas Meredith Professor  
Ph.D., Indiana University, 1977  
Acting, directing, dramatic literature, play analysis

James Clark, Professor  
M.A., Indiana University, 1971  
Theater management, theater as a profession

Ann Clarke, Associate Professor  
M.F.A., Rhode Island School of Design, 1994  
Fiber arts

Felix Cochren, Associate Professor  
Design/technical theater

Jill Coggiola, Part-time Instructor; Assistant  
Director for Academic Affairs  
D.M., Florida State University, 1994  
Clarinet, Music Education

John Coggiola, Associate Professor;  
Director, Jazz Studies  
Ph.D. Florida State University, 1997  
Jazz Studies, Jazz Ensemble, Music Education,  
Music Cognition, Music Technology

John Coggiola, Associate Professor,  
Department of Music Education; Director,  
Jazz Studies, Setnor School of Music  
Ph.D., Florida State University

Michael Coldren, Part-time Instructor  
M.M., Arizona State University, 1988  
Tuba, euphonium

Diana Coles, Adjunct  
M.A., University of Missouri, Kansas City, 1967  
Theater management

Joseph Colombo, Part-time Instructor  
M.S., Syracuse University, 2002  
Jazz Trombone

Todd Conover, Associate Professor  
B.S., Syracuse University, 1995  
Fashion design

Robert Cooney, Associate Professor  
B.F.A., Syracuse University, 1972  
Communications design

Kelly Covert, Part-time Instructor  
M.M., Ithaca College  
Flute

Leo Crandall,

Stephen Cross, Professor

Deborah Cunningham, Part-time  
Instructor  
M. Mus. Ed.; M.M., Syracuse University,  
2004; 1994  
Music Education

Susan D'Amato, Associate Professor  
M.F.A., University of North Carolina at  
Chapel Hill, 2000  
Drawing

Robert Dacey, Professor  
B.F.A., Art Center College, Los Angeles, 1975  
Drawing, illustration

Michele Damato, Assistant Professor  
M.S., Pratt Institute

Gretchen Darrow, Adjunct  
University of Connecticut, 1995  
Costume and design technology

Timothy Davis-Reed, Assistant Professor  
B.F.A., Syracuse University, 1985  
Acting

Elisa Dekaney, Associate Professor; Chair,  
Department of Music Education  
Ph.D. Florida State University, 2001  
Music Education, Concert Choir, Brazilian  
Ensemble

Joshua Dekaney, Part-time Instructor;  
Director, Career Development Center  
M.Mus., University of Missouri-Kansas City,  
1998  
Drumset, Jazz Drumset, Jazz Combos, Jazz  
Improvisation, Brazilian Ensemble, Music  
Education

Anne Demo, Associate Professor  
Ph.D., Pennsylvania State University, 2000  
Visual rhetoric, immigration rhetoric,  
rhetorical theory

Bill DiCosimo, Assistant Professor  
M.Mus., University of Southern California,  
1976  
Jazz studies, music industry

Dana DiGennaro, Part-time Instructor  
M.M., Mannes School of Music, 1992  
Flute

Gabriel DiMartino, Part-time Instructor  
M.M., Wichita State University, 2008  
Trumpet, Brass Choir  
Trumpet

Emily Dittman,

Deborah Dohne, Associate Professor  
M.F.A., Ohio State University, 1990  
Dimensional arts, sculpture

Marion Yvonne Dorfer, Associate Professor  
M.F.A., Syracuse University, 1992  
Surface pattern design

Joseph Downing, Associate Professor  
D.M., Northwestern University, 1985  
Composition, music theory

Michael Dubaniewicz, Part-time Instructor  
D.M.A., Eastman School of Music, 2009  
Jazz Saxophone

Doug DuBois, Associate Professor  
M.F.A., San Francisco Art Institute, 1988  
Photography

Craig Duczak, Associate Professor  
PhD

Zorana Dunham, Assistant Professor  
BFA Interior Design Syracuse University

Dennis Earle, Assistant Professor  
Masters Architecture U of PA - Pitt

Jonathan English, Part-time Assistant  
Professor  
M.Mus., Eastman School of Music, 1984  
Voice

Bradley P. Ethington, Professor; Director,  
University Bands; Coordinator Woodwinds,  
Brass, Percussion Area  
D.M.A., University of Texas at Austin, 1995  
Conducting, Wind Ensemble

James Fathers, Professor; Iris Magidson  
Endowed Chair of Design Leadership Chair  
PhD

Stephen Ferre, Part-time Instructor  
D.M.A., Northwestern University, 1988  
Music Theory, Contemporary Music Ensemble

Steven Frank, Part-time Instructor  
M.M., Youngstown State University, 1978  
Music Education

Jon Garland, Part-time Instructor  
B.Mus., The Julliard School, 1995  
Horn

Jeff Glendennig, Assistant Professor  
B.F.A., Syracuse University

Daniel S. Godfrey, Professor  
Ph.D., University of Iowa, 1982  
Music theory, composition

Sharon Gold, Associate Professor  
B.F.A., Pratt Institute of Technology, 1976  
Drawing, painting, art theory

Jeffrey Good, Assistant Professor  
Ph.D., University of California, Los Angeles

Cynthia Gordon, Associate Professor  
Ph.D., Georgetown University, 2003  
Language and social interaction, family  
communication

Eileen Gosson, Assistant Professor  
B.F.A., Syracuse University, 1984  
Surface pattern design

Holly Greenberg, Associate Professor  
M.F.A., The School of the Art Institute of  
Chicago, 1994  
Printmaking

Donna Smith Greene,  
B.F.A., Syracuse University, 1987  
Advertising design

Lynn Greenky, Assistant Professor  
J.D., Emory University School of Law, 1982  
Argumentation and Advocacy, Legal  
Communication

Sharon Greytak,

Diane Grimes, Associate Professor  
Ph.D., Purdue University, 1996  
Organizational communication

Eric A Gustafson, Part-time Instructor  
Viola

Kathleen Haddock, Part-time Instructor  
M.M., Boston University, 1981  
Piano, Vocal Coaching, Opera Workshop

Bob Halligan Jr., Part-time Instructor  
B.A., Hamilton College, 1975  
Songwriting

Heath Hanlin, Associate Professor  
M.F.A., Ohio State University, 1998  
Computer art

William Harris, Part-time Instructor  
M.M., Syracuse University, 1979  
Trombone, Euphonium, Tuba

Andrew Havenhand, Assistant Professor  
M.F.A., Virginia Commonwealth University,  
1984  
Painting

Lucinda Kaukas Havenhand, Associate  
Professor  
Ph.D., Virginia Commonwealth University,  
2007  
Interior design, design history

Lori Hawke, Assistant Professor  
M.F.A., Syracuse University

James Haywood Rollings, Jr, Professor;  
Chair/Program Coordinator  
Ed.D., Ed.M., Columbia University, Teachers  
College

Denise Heckman, Assistant Professor  
M.F.A., Cranbrook Academy of Art, 1995  
Industrial design

Dusty Herbig, Associate Professor  
M.F.A., University of Wisconsin, Madison,  
2002  
Printmaking

Kara Herold, Assistant Professor  
Film

Jonathan Herter, Adjunct  
B.A., SUNY Geneseo  
Sound design

Juliet Hess, Assistant Professor  
Ph.D., University of Toronto, 2013  
Music Education

Amy Giller Heyman, Part-time Instructor  
M.Mus., University of Wisconsin-Madison,  
1986  
Piano, Piano Class

Laura Heyman, Associate Professor  
M.F.A., Cranbrook Academy of Art, 1998  
Photography

Steven Heyman, Associate Professor; Chair,  
Department of Applied Music and  
Performance  
M.Mus., Julliard School of Music, 1982  
Piano

David Hicock, Adjunct  
B.F.A., Syracuse University, 1972 Film

Kenneth Hine, Associate Professor  
Art Institute of Chicago  
Communications design

Gail Hoffman, Adjunct Professor  
M.F.A., Indiana University, 1980  
2-D creative processes

Bradley Hudson, Adjunct, Exhibition  
Facilitator  
M.F.A., Kent State University, 1982  
Museum studies

Rodney S. Hudson, Assistant Professor  
M.A., University of South Dakota, 1973  
Musical theater performance, scene study

Margie Hughto, Professor  
M.F.A., Cranbrook Academy of Art, 1971  
Ceramics

Elizabeth Ingram, Associate Professor  
London Academy of Music and Dramatic Art,  
1964  
Voice, acting, scene study

Malcolm Ingram, Associate Professor  
Central School of Speech and Drama, London,  
1963  
Voice/verse, scene study

Felix Ivanoff, Professor  
Diploma, Central School of Speech and  
Drama, London, 1963  
Voice/verse, scene study

Christopher Jabot, Part-time Instructor  
M.M., Syracuse University, 2013  
Saxophone

Nancy B. James, Part-time Instructor  
M.M. in Vocal Coaching, New England  
Conservatory of Music, 1987  
Voice

Stephanie James,  
MFA Newcastle University

Arthur D. Jensen, Professor  
Ph.D., University of Massachusetts, 1982  
Organizational communication, small group  
communication

Eric Johnson, Associate Professor;  
Coordinator, Voice Area  
M.M., Indiana University School of Music,  
1983  
Voice, opera workshop

Kenneth M. Johnson, Assistant Professor  
Ph.D., University of Massachusetts, 1980  
Interpersonal communication, research  
methods

Patrick M Jones, Professor; Director, Setnor  
School of Music  
Ph.D., Pennsylvania State University, 2002  
Music Education

Juan Juarez, Associate Professor  
M.F.A., University of Wisconsin-Milwaukee  
Art, Design, and Transmedia

Fred Karpoff, Professor; Coordinator,  
Keyboard Area  
D.M.A., Peabody Conservatory of Music,  
1992  
Piano, chamber music, vocal coaching

Marie Kemp, Assistant Professor  
M.F.A., M.Mus, Syracuse University, 1989  
Musical theater performance, scene study

Amos Kiewe, Professor  
Ph.D., Ohio University, 1984  
Criticism, public address, rhetoric

Alex Koziara, Associate Professor  
M.F.A., SUNY at Purchase, 1998  
Lighting and set design, CAD lab

Meggan C. Kulczynski, Adjunct  
M.F.A., North Carolina School of the Arts,  
2000  
Design and costume technology

Kevin Larmon, Assistant Professor  
B.F.A., State University of New York at  
Binghamton, 1978  
Painting

John Laverty, Professor  
Ph.D., Florida State University, 1995  
Music Theory, Music Industry

Victor Lazarow, Associate Professor  
Ph.D., University of Georgia, 1978  
Acting, theater history, play analysis

Matthew "Zeke" Leonard, Assistant  
Professor  
M.F.A., Rhode Island School of Design

Jude Lewis, Associate Professor  
M.F.A., State University of New York at  
Albany, 1989  
Sculpture, dimensional arts

David Lowenstein, Adjunct  
B.F.A., Syracuse University, 1984  
Musical theater

Holly K. Luedtke, Adjunct  
B.S., Ball State University; Scenic Art  
Internship, Julliard School  
Scene painting

Patrick MacDougall, Part-time Instructor  
Sound Recording

Celia Madeoy, Assistant Professor  
M.F.A., DePaul University

Maria Marrero, Professor  
M.F.A., Rutgers University, 1977  
Costume and set design, stage makeup

Roderick Martinez, Associate Professor  
M.F.A., Rochester Institute of Technology,  
1993  
Communications design

Daniel Mastronardi, Part-time Instructor  
Music Industry

Jeffrey Mayer, Associate Professor  
M.A., University of Connecticut, 1989  
Fashion design

Sarah McCoubrey, Professor  
M.F.A., University of Pennsylvania, 1981  
Drawing, painting

Chris McCray, Assistant Professor  
M.F.A., Rhode Island School of Design, 2008  
Industrial design

Julia McKinstry, Part-time Instructor  
M.F.A., Carnegie Mellon University, 1981  
Voice

Judith E. Meighan, Associate Professor  
Ph.D., Columbia University, 1997  
Art history

Alex Mendez, Assistant Professor  
Film

Justin J. Mertz, Part-time Instructor; Assistant Director, University Bands; Director, Athletic Bands  
M.Mus., Syracuse University, 2003  
Marching Band, Symphonic Band, Music Education

Ken Meyer, Part-time Instructor  
D.M.A., Eastman School of Music, 2000  
Guitar, Guitar Ensemble

Donna Miller, Part-time Instructor  
M.M., Syracuse University, 1982  
Voice

Jonathan Mills, Assistant Professor, Program Coordinator

Charles Morris, Professor

Robert Moss, Adjunct  
Director, Playwrights Horizons Theatre School Directing

Carmel Nicoletti, Adjunct  
M.F.A., Syracuse University, 1986  
Drawing, 2-D creative processes

Ulf Oesterle, Assistant Professor; Chair, Depart of Music and Entertainment Industries  
Ph.D., Syracuse University, 2007  
Music Industry

William Padgett, Associate Professor  
B.F.A., Washington University, 1970  
Communications design

Vasilios Papaioannu, Assistant Professor  
Film

Kendall Phillips, Professor  
Ph.D., Pennsylvania State University, 1995  
Rhetoric, American film, public sphere

Erin Rand, Assistant Professor  
Ph.D., University of Iowa, 2006  
Rhetoric, social movements, gender and queer theory

James Ransome, Associate Professor  
B.F.A., Pratt Institute  
Illustration

Sarah Gillen Redmore, Assistant Professor  
B.F.A., Syracuse University, 1990  
Interior design

David M. Rezak, Professor of Practice; Director, Bandier Program  
Music industry

Harumi Rhodes, Assistant Professor; Coordinator, Strings Area  
M.M., G.D., New England Conservatory of Music, 2004  
Violin, String Chamber Ensembles

Amaro Rodriguez, Laura J. and L. Douglass Meredith Professor  
Ph.D., Howard University, 1995  
Organizational communication, communication theory, postcolonial theory

Kathleen Roland-Silverstein, Assistant Professor  
D.M.A., University of Southern California  
Voice

Boryana Rossa, Assistant Professor

Annina Ruest, Assistant Professor  
M.F.A., University of California, San Diego  
Computer art and animation

Annina Ruest,

Julianna Maria Sabol, Associate Professor  
D.M.A., University of Cincinnati, 1992  
Voice

Anthony Salatin, Associate Professor  
B.F.A., Juilliard School, 1969  
Ballet, tap, performance styles, movement

Andrew Saluti, Adjunct  
M.F.A., Louisiana State University, 2002  
Drawing

Sarah Saulson, Adjunct  
B.A., Wellesley College, 1976  
Fibers

Susannah Sayler, Assistant Professor  
M.F.A., The School of Visual Arts  
Art photography

Nicolas Scherzinger, Associate Professor; Chair, Department of Music Composition, Theory, and History  
D.M.A., Eastman School of Music, 2001  
Composition, Music Theory, Electronic Music

Owen Shapiro, Professor  
M.F.A., Brooklyn College, 1966  
Film, media theory

Sam Sheehan, Adjunct  
Props, crafts, construction, research

Tom Sherman, Professor  
B.F.A., Eastern Michigan University, 1970  
Video, media theory

Elizabeth Shorrock,

Joanna Spitzner, Associate Professor  
M.F.A., Ohio State University, 2001  
Time arts

Randy Steffen, Adjunct  
M.F.A., Yale University  
Technical design and production

Ludwig K. Stein, Professor  
M.F.A., Tyler School of Art, 1969  
Drawing, painting

Emily Stokes-Rees, Assistant Professor

Miso Suchy, Associate Professor  
M.F.A., Academy of Performing Arts, Bratislava, Czechoslovakia, 1990  
Film

Kimi Takesue,

James Tapia, Associate Professor; Director, Orchestral Activities  
D.M.A., University of Texas at Austin, 1997  
Orchestra, conducting

John Thompson, Professor  
B.F.A., Miami University of Ohio, 1962  
Illustration, painting

Ida Tili-Trebicka, Part-time Assistant Professor  
M.Mus., Syracuse University, 1996  
Piano, Piano Class

Long-Nam To, Assistant Professor  
Fashion Design

Toni Toland, Associate Professor  
M.F.A., Syracuse University, 1982  
Advertising design

Sam Van Aken, Associate Professor; Program Coordinator  
M.F.A., University of North Carolina, Chapel Hill  
Sculpture

Emily Vey Duke, Associate Professor  
M.F.A., University of Illinois at Chicago  
Department of Transmedia Art video TRM core/selected topics

Emily Vey Duke,

Bradford Vivian, Associate Professor  
Ph.D., Pennsylvania State University, 2001  
Rhetorical theory, public memory, continental philosophy

Andrew Waggoner, Professor  
D.M.A., Cornell University, 1986  
Composition, music theory

Barbara Walter, Professor  
M.F.A., Northern Illinois University, 1977  
Metalsmithing

David Wanstreet, Assistant Professor  
B.S., West Virginia University, 1971  
Musical performance and choreography

Joseph Whelan, Adjunct  
B.A., Empire State College  
Theater history

Christopher Wildrick, Associate Professor;  
Department Chair  
M.F.A., University of Wisconsin-Madison

Errol Willett, Associate Professor  
M.F.A., Pennsylvania State University, 1993  
Ceramics

Jerome P. Witkin, Professor  
M.F.A., University of Pennsylvania, 1970  
Painting, drawing

Robert Wysocki, Assistant Professor  
M.F.A., Yale University, 1995  
Sculpture

Rebecca Xu, Assistant Professor  
MFA Computer Art

Stephen Zaima, Professor  
M.F.A., University of California, Davis, 1971  
Painting, art theory

Ralph Zito, Professor, Chair

# University College

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Bethaida Gonzalez, Dean  
700 University Ave.  
uc.syr.edu/



## About The College

University College (UC), is the home of part-time and summer studies at Syracuse University. UC offers a variety of credit and noncredit classes for part-time students during the fall and spring semesters, and for full-time, part-time, and visiting students during the summer. Part-time students receive Syracuse University degrees upon completion of their academic program.

UC also offers unique and valuable summer programs for high school students, administers educational programs for international students, is actively engaged in the University's commitment to serving veterans and their families, and enhances the local community through its continuing education and outreach programs. UC serves its constituents throughout their lifespan, engaging a spectrum of people from elementary school students to retired professionals, and enriching their lives by applying the knowledge and resources of a major university toward community issues and problems. University College acts as a bridge between the academic purposes of Syracuse University and the interests and needs of the community.

## Mission

### Our Mission

To provide exceptional support and services for a diverse population seeking access to Syracuse University. To act as an entry point for students, an innovator of programs, a connector across campus disciplines, a builder of bridges to the community, and a partner for business.

## Undergraduate Programs

### Degrees

Part-time students earning a Syracuse University associate or bachelor's degree through University College may enroll for 11 or fewer credits each semester. Students have the option of taking day, evening, online, or flexible format classes, and have numerous choices in programs of study offered by the academic schools and colleges. Curriculums are the same for both part- and full-time undergraduates. [Click here for a complete listing of all degree programs available to part-time students.](#)

Beginning in Fall 2014 and available only through University College is an innovative career-focused degree program – the Bachelor of Professional Studies (B.P.S.). This nontraditional program of study, designed specifically for working adults, offers a Syracuse University degree, or a certificate, in either Creative Leadership or Knowledge Management. Both B.P.S. programs are expressly designed to prepare students for the demands of the current workplace and job market. An all-University faculty committee oversees the two degree programs, including policies and procedures.

### Certificates

Undergraduate certificate programs in Creative Leadership or Knowledge Management are offered as an option of the B.P.S. curriculum path. They are designed for working adults seeking an interim credential as they complete the B.P.S. degree or prefer a stand-alone certificate.

### General Regulations

For academic rules and regulations applying to all University students, see the “Academic Rules and Regulations” section of this catalog, which also contains special regulations that apply to University College students. The regulations below apply to all students matriculated through University College for the Bachelor of Professional Studies degrees.

### Minimum Requirements for Degree

At least 120 credits of coursework are required for the B.P.S. degrees. To be eligible for graduation, B.P.S. students must attain a minimum grade point average (GPA) of 2.0 in courses taken at Syracuse University. Students must earn a grade point average of at least 2.0 in courses counted toward completion of their program of study.

### Minimum Requirements for Certificate

At least 15 credits of coursework are required for the certificates. To be eligible for graduation, certificate students must attain a minimum grade point average (GPA) of 2.0 in courses taken at Syracuse University. Students must earn a grade point average of at least 2.0 in courses counted toward completion of their certificate. Admission requires associate degree or 60 college credits.

## Declaring a Program of Study

B.P.S. students must declare a program of study by the time they have reached junior standing.

## Prior Learning Assessment for Bachelor of Professional Studies

Under the guidelines of the Council for Adult and Experiential Learning (CAEL), University College recognizes that adult students may bring with them transfer credits from accredited American colleges and universities, credits from approved institutions in other countries, performance in college-level or proficiency examinations, and/or prior college-level learning gained from work and life experiences.

A maximum of 30 credits from the combination of advanced credit, prior learning assessment, and/or credits earned through nontraditional programs may be applied toward the number of credits required for graduation. These credits may not be applied to the 30-credit residency requirement. A maximum of 12 credits may be applied in the program of study.

Student must be matriculated in a B.P.S. program with junior standing to apply for prior learning assessment by developing a portfolio of prior college-level learning that identifies and documents the learning and how it applies to the individual's degree program. Further information is available from UC's Academic Advising Office, 315-443-3261.

## Transfer Credit Policy

Students who are matriculated in a B.P.S. degree program can earn up to 90 credits toward the 120 required for graduation through a combination of traditional transfer credit and prior learning assessment. A maximum of 66 lower-division credits may be transferred to an SU degree from a combination of testing programs and two-year college credits. A maximum of 90 credits may be granted from another four-year school. University College accepts a maximum of 12 transfer credits in the B.P.S. program of study.

## Bachelor of Professional Studies

Academic Director: Arthur Jensen, Senior Associate Dean/Professor, College of Visual and Performing Arts, 315-443-5890, [adjensen@syr.edu](mailto:adjensen@syr.edu)

Administrative Director: Christine M. Praino, Senior Program Administrator, University College, 315-443-1317, [cmpraino@syr.edu](mailto:cmpraino@syr.edu)

University College provides part-time students with personalized academic advising, financial aid, registration and bursar services. To find out how you can earn an SU degree part time or to begin by taking a course, attend an Education Day, call for an appointment with an academic advisor (315-443-3261), or e-mail [parttime@uc.syr.edu](mailto:parttime@uc.syr.edu). We'll get you started on the journey of a lifetime.

(\*Matriculation: admission to a degree program. Required for graduation and financial aid.)

## Summer Programs

### Summer Sessions

MAYmester - an intensive, two-week session

Session I - six weeks (mid-May to late June)

Session II - six weeks (early July to mid-August)

Combined Session - 7- to 12-week session (mid-May to mid-August)

Attending summer sessions enables students to take courses they couldn't enroll in during other semesters. Additionally, students visiting from other colleges can, with permission from their home school, take courses at SU during the summer and transfer their credits to their own university.

The Summer Course Schedule is available at the beginning of March. Students may also search for classes in MySlice.

### Summer College for High School Students

High school students can take undergraduate courses, earn college credits, and explore potential majors while taking part in campus life through Summer College. Two-week, three-week, and six-week programs are available – some credit and some noncredit. For more information, contact the Summer College office, at 315-443-5000 or [sumcoll@syr.edu](mailto:sumcoll@syr.edu), or visit the web site.

### SummerStart

SummerStart is a six-week residential program that is specifically designed for incoming first-year students. The program is offered during Summer Session II. Students may earn up to 8-9 credits toward their degree program, and become more familiar with the academic, social, and cultural life at SU.

SummerStart helps to ease the transition into college, expands academic options, and affords students the opportunity to become a more self-assured and confident first-year student. For more information, contact the SummerStart office at 315-443-5045 or [SUstart@syr.edu](mailto:SUstart@syr.edu), or visit the web site.

### Student Success Initiative

The Student Success Initiative (SSUI) program is committed to the retention of students. In partnership with SU's schools and colleges, SSUI provides a comprehensive learning community experience that includes personal coaching, quiet study areas, tutorials, and social activities. To qualify for the SSUI program, students must show some indication that they are academically "at risk" and are dedicated to making a change in their approach to academic and personal development. For more information, contact the SSUI office at 315-443-1095 or [ssui@syr.edu](mailto:ssui@syr.edu), or visit the web site.

## English Language Institute

English Language Institute (ELI) courses are designed for international students and professionals who are interested in short-term or long-term study to improve their proficiency in English. Intensive courses are offered at six levels with an emphasis on academic English. Many of our students have been conditionally admitted to Syracuse University and are in need of additional English proficiency before enrolling in a degree program. Courses also can be tailored for discipline-specific study and a 6-week Legal English course supports students accepted for the LL.M. (Master of Law s). In addition, the ELI offers a 4-week general English course in the summer, as well as other summer opportunities for high school students. Highly qualified instructors, a great deal of personal attention, and intensive exposure to English language instruction enable students to make the necessary progress. Enrollment is limited and admission is by application only.

For more information about the ELI, call 315-443-8571 or visit the web site.

## Veterans Resource Center (VRC)

Veterans Resource Center (VRC)

Veterans are a part of the thriving Syracuse University community. SU's Veterans Resource Center is dedicated to assisting prospective and current students as they navigate Veterans Affairs and University administration. The SU Veterans Lounge, staffed by fellow veterans, is a place where student-veterans make connections and share strategies and support while acclimating to college life. The Student Veterans Organization is a recognized student organization supported by the Veterans Resource Center. A chapter of the national S.A.L.U.T.E. honors society for veterans ([salute.colostate.edu/](http://salute.colostate.edu/)) inducts Syracuse student-veteran members annually. Syracuse University's proud history of serving veterans dates back to World War II. We remain committed to supporting those who have served our country. For more information, call 315-443-9297 or visit our web site [vrc.syr.edu](http://vrc.syr.edu).

## Arthur O. Eve HEOP

The Arthur O. Eve Higher Education Opportunity Program (HEOP) for part-time students, administered by University College, is designed for first-time college students and transfer students from other opportunity programs. It provides academic and financial support for people of all ages who, because of educational and economic circumstances, would otherwise be unable to attend college. This is the only HEOP program for students who can study on a part-time basis in New York State.

For more information on the HEOP program, call 315-443-3261 or visit the web site.

## Talent And Education Development Center (TEDCenter)

Talent & Education Development Center (TEDCenter)

The TEDCenter is dedicated to improving the knowledge and capabilities of the existing and emerging workforce. The Center's professional development curriculum is noncredit and is designed to build competency for career growth in the region's critical business sectors. Classes are delivered in both classroom and online settings, many of which lead to an industry-recognized credential. Register for open enrollment programs or request a custom program at the TEDCenter web site.

For information, call 315-443-5241, or e-mail [TEDCenter E-UC-TEDCenter@uc.syr.edu](mailto:TEDCenter E-UC-TEDCenter@uc.syr.edu)

## University College Honors

University College celebrates the accomplishments of those students who achieve extraordinary success in their studies with the following forms of recognition.

Alpha Sigma Lambda - Matriculated part-time candidates for the bachelor's degree may be invited to join Alpha Sigma Lambda, the national honor society for continuing education students, represented at SU by the Beta Delta chapter. To qualify, part-time students who have earned at least 24 credits,

have maintained a 3.2 GPA, and are in the top 10-20% of the class may be selected as initiates.

Dean's List - Matriculated part-time students enrolled at University College are selected for the dean's list at the end of the fall or spring semester, if they have enrolled in consecutive semesters with a total of 12 or more credits and earned a 3.4 GPA.

University Honors - Students who achieve superior cumulative GPAs are eligible to receive their degree with University Honors. This honor is based on a minimum of 60 credits of letter-graded classes taken at Syracuse University.

Degree Honors            GPA Requirement

Cum laude - 3.2 for Architecture / 3.4 for all other colleges

Magna cum laude - 3.5 for Architecture / 3.6 for all other colleges

Summa cum laude - 3.8

These honors will be imprinted on transcripts and diplomas after graduation. Students should check with the office of the dean of his/her home college to determine how the GPA is calculated. Generally, physical education skills classes and ROTC credit are not included in calculating University honors.

Cumulative GPA requirements for these honors must be exactly at or above those noted: no rounding off is permitted. See the current issue of Academic Rules and Regulations for a complete statement of University policies and requirements.

## Academic Offerings

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### Creative Leadership

Bachelor of Professional Studies in Creative Leadership

Contact:  
Academic Director: Arthur Jensen, Senior Associate Dean/Professor, College of Visual and Performing Arts, 315-443-5890, [adjensen@syr.edu](mailto:adjensen@syr.edu)  
Administrative Director: Christine M. Praino, Senior Program Administrator, University College, 315-443-1317, [cmpraino@syr.edu](mailto:cmpraino@syr.edu)

Faculty:  
Faculty from schools/colleges across campus, in addition to Michael Evans and Bart Murphy (part-time instructor).

Description:  
Understand the importance of professional relationships, networking and how to establish and manage a local and global workforce. Recognize the difficulty and conflict in professional situations, analyze possible causes, and propose creative scenarios for resolution. Problem-solve, manage collaborative diverse teams. Develop tasks and work processes for desired organizational outcomes, ability to work face-to-face or virtually.

Admission:  
BPS students must declare a program of study by the time they have reached junior standing, in a meeting with a University College Academic Advisor.

Requirements:  
Courses (required and elective): 120 credits - divided into 4 segments: Liberal Studies Core 30-37 credits; Professional Competencies Core 30 credits; Concentration Program of Study 30 credits; Electives 23-30 credits. Three required courses: BPS 211 Introduction to BPS, CRL 301 Introduction to Creative Leadership; BPS 411 Senior Seminar. No more than three courses (9 credits) may be taken in the School of Management.

The Liberal Studies Core gives a foundation in writing, language or quantitative skills, humanities, social science, natural science, and critical reflections. It draws upon lower-division courses in the College of Arts and Sciences.

Liberal Studies Core - 30-37 credits (Mandatory for both programs of study.)

Writing (Choose 6 credits)

WRT 105 Writing Studio 1: Practices of Academic Writing

WRT 205 Writing Studio 2: Critical Research & Writing

Foreign Language OR Quantitative Skills (Choose 6-12 credits)

Foreign Language:

Complete Language Skills Sequence Requirement outlined in the Liberal Arts Core Guidebook.

OR

Quantitative Skills:

Complete Quantitative Skills Sequence Requirement outlined in the Liberal Arts Core Guidebook.

Humanities (Choose 6 credits)

Any course listed in the Humanities Division of the Liberal Arts Core Guidebook.

Social Science (Choose 6 credits)

Any course listed in the Social Sciences Division of the Liberal Arts Core Guidebook.

Natural Science (Choose 3-4 credits)

Any course listed in the Natural Sciences Division of the Liberal Arts Core Guidebook.

Critical Reflections on Ethical & Social Issues (Choose 3 Credits)

Any course listed in the Critical Reflections on Ethical & Social Issues Division of the Liberal Arts Core Guidebook.

The Professional Competencies Core covers fundamental knowledge and abilities required in the modern workplace, such as ethics and critical thinking, problem solving, human relations, diversity and change management, budgeting and resource management, and teamwork. It draws upon courses from several schools and colleges: Arts and Sciences (philosophy, public affairs, sociology, and writing), Information Studies, Management, (accounting, finance, marketing, strategic human resources), and Visual and Performing Arts (communication and rhetorical studies). The Professional Competencies Core includes an introductory course, and a capstone experience required of all B.P.S. students. Designed to draw together issues from across the entire B.P.S. program, these courses summarize concepts covered in the curriculum and develop students' skills in strategic decision-making that looks to the future.

Professional Competencies Core – 30 credits (Mandatory for both programs of study.)

Ethics and Critical Thinking: (Choose 3 credits)

PHI 171 Critical Thinking (3)

LPP 467 Management and Ethics (3)

PHI 393 Contemporary Ethics (3)

Communication: (Choose 9 credits)

CRS 225 Public Advocacy

CRS 325 Presentational Speaking (3)

CRS 331 Interpersonal Communication (3)

WRT 307 Adv. Writing Studio: Professional Writing (3)

WRT 301 Adv. Writing Studio: Civic Writing (3)

WRT 302 Adv. Writing Studio: Digital Writing (3)

IST 444 Information Reporting & Presentation (3)

Relationship Management: (Choose 6 credits)

CRS 430 Intercultural Communication (3)

SHR 355 Strategic Human Resource Management (3)

SWK 326 Persons in Social Context (3)

SWK 328 Human Diversity in Social Contexts (3)

BPS 382 Leading Cooperative Negotiations (3)

OGL 342 Customer Relations Leadership (3)

Business Processes: (Choose 6 credits)

ACC 151 Introduction to Financial Accounting (4)

LPP 255 Introduction to the Legal System (3)

BPS 300 Practical Financial Applications for Professional Studies (3)

IST 335 Introduction to Information-Based Organizations (3)

GET 234 Effective Collaboration in a Globally Distributed Environment (1.5)

GET 235 Leveraging Emerging Technologies (1.5)

Program/Project/Process Management: (Both Required)

BPS 211 Introduction to Professional Studies (3)

BPS 411 Senior Seminar (3)

Program of Study Requirements: Creative Leadership (30 credits)

Introduction (Required)

CRL 301 Introduction to Creative Leadership (3)

Communication/Problem-Solving (Choose 9 credits)

CRS 313 Nonverbal Communication (3)

CRS 335 Leadership/Stewardship Communication (3)

CRS 338 Communication in Organizations (3)

ANT 424 Negotiation: Theory and Practice (3)

IST 444 Information Reporting & Presentation (3)

LGL 322 Alternative Dispute resolution (3)

PAF 420 Interpersonal Conflict Resolution Skills (3)

PAF 421 Mediation: Theory and Practice (3)

PAF 424 Conflict Resolution in Groups (3)

Creativity/Design-Thinking (Choose 12 credits)

DES 202 Contemporary Issues in Design (3)

DES 248 Design Issues (3)

DES 452 Branding & Marketing Works (3)

EEE 370 Introduction to Entrepreneurship & Emerging Enterprises (3)

EEE 375 Entrepreneurial and Family Business Management (3)

EEE 378 Imagination, Entrepreneurship, and Creative Problem Solving (3)

IDS 401 What's the Big Idea?: Technology Innovation (3)

IDS 402 Idea2Startup (3)

IDS 403 Startup Sandbox (1-6)

Leadership (Choose 3 credits)

OGL 472 Organizational Leadership (3)

SHR 462 Leadership and Organization Change (3)

Relationship/Workforce Management (Choose 3 credits)

HTW 405 Cognitive Behavioral Approaches to Stress Reduction (3)

LGL 403 Business Organizations (3)

SOC 466 Organizations and Society (3)

Note: The degree is administered by University College with the involvement of other schools and colleges within Syracuse University. Each student should consult with their UC Academic Advisor to structure a plan for degree completion.

## Creative Leadership

### Certificate in Creative Leadership

**Contact:**  
Academic Director: Arthur Jensen, Senior Associate Dean/Professor, College of Visual and Performing Arts, 315-443-5890, adjensen@syr.edu  
Administrative Director: Christine M. Praino, Senior Program Administrator, University College, 315-443-1317, cmpraino@syr.edu

**Faculty:**  
Faculty from schools/colleges across campus, in addition to Michael Evans and Bart Murphy (part-time instructor).

**Description:**  
Understand the importance of professional relationships, networking and how to establish and manage a local and global workforce. Recognize the difficulty and conflict in professional situations, analyze possible causes, and propose creative scenarios for resolution. Problem-solve, manage collaborative diverse teams. Develop tasks and work processes for desired organizational outcomes, ability to work face-to-face or virtually.

**Admission:**  
Associate degree or 60 college credits.

**Requirements:**  
Courses: 15 credits in upper division major/concentration courses as indicated: CRL 301, CRS 335, IDS 401, PAF 424, SHR 462.  
Other: GPA 2.0 minimum

**Degree:** Certificate in Creative Leadership

**Total Credits:** 15

**Note:**  
The certificate is administered by University College with the involvement of other schools and colleges of Syracuse University. Each student should consult with their UC Academic Advisor to ensure certificate completion.

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## Knowledge Management

### Bachelor of Professional Studies in Knowledge Management

**Contact:**  
Academic Director: Arthur Jensen, Senior Associate Dean/Professor, College of Visual and Performing Arts, 315-443-5890, adjensen@syr.edu  
Administrative Director: Christine M. Praino, Senior Program Administrator, University College, 315-443-1317, cmpraino@syr.edu

**Faculty:**  
Faculty from schools/colleges across campus, in addition to Richard Garza.

**Description:**  
Understand the role of technology, its use as a resource tool in organizations & society; understand social media, data management, and information security. Make sense of the amount of data available, problem-solve, manage collaborative, diverse teams, and propose creative solutions. Develop tasks and work processes for desired organizational outcomes, work face-to-face or virtually, and critically and ethically assess big data.

**Admission:**  
BPS students must declare a program of study by the time they have reached junior standing, in a meeting with a University College Academic Advisor.

**Requirements:**  
Courses (required and elective): 120 credits - divided into 4 segments: Liberal Studies Core 30-37 credits; Professional Competencies Core 30 credits; Concentration Program of Study 30 credits; Electives 23-30 credits. Four required courses: BPS 211 Introduction to BPS; KNM 301 Introduction to Knowledge Management; KNM 401 Professional Issues in Knowledge Management; BPS 411 Senior Seminar. No more than three courses (9 credits) may be taken in the School of Management.

The Liberal Studies Core gives a foundation in writing, language or quantitative skills, humanities, social science, natural science, and critical reflections. It draws upon lower-division courses in the College of Arts and Sciences.

Liberal Studies Core - 30-37 credits (Mandatory for both programs of study.)

Writing (Choose 6 credits)

WRT 105 Writing Studio 1: Practices of Academic Writing

WRT 205 Writing Studio 2: Critical Research & Writing

Foreign Language OR Quantitative Skills (Choose 6-12 credits)

Foreign Language:

Complete Language Skills Sequence Requirement outlined in the Liberal Arts Core Guidebook.

OR

Quantitative Skills:

Complete Quantitative Skills Sequence Requirement outlined in the Liberal Arts Core Guidebook.

Humanities (Choose 6 credits)

Any course listed in the Humanities Division of the Liberal Arts Core Guidebook.

Social Science (Choose 6 credits)

Any course listed in the Social Sciences Division of the Liberal Arts Core Guidebook.

Natural Science (Choose 3-4 credits)

Any course listed in the Natural Sciences Division of the Liberal Arts Core Guidebook.

Critical Reflections on Ethical & Social Issues (Choose 3 Credits)

Any course listed in the Critical Reflections on Ethical & Social Issues Division of the Liberal Arts Core Guidebook.

The Professional Competencies Core covers fundamental knowledge and abilities required in the modern workplace, such as ethics and critical thinking, problem solving, human relations, diversity and change management, budgeting and resource management, and teamwork. It draws upon courses from several schools and colleges: Arts and Sciences (philosophy, public affairs, sociology, and writing), Information Studies, Management, (accounting, finance, marketing, strategic human resources), and Visual and Performing Arts (communication and rhetorical studies). The Professional Competencies Core includes an introductory course, and a capstone experience required of all B.P.S. students. Designed to draw together issues from across the entire B.P.S. program, these courses summarize concepts covered in the curriculum and develop students' skills in strategic decision-making that looks to the future.

Professional Competencies Core – 30 credits (Mandatory for both programs of study.)

Ethics and Critical Thinking: (Choose 3 credits)

PHI 171 Critical Thinking (3)

LPP 467 Management and Ethics (3)

PHI 393 Contemporary Ethics (3)

Communication: (Choose 9 credits)

CRS 225 Public Advocacy

CRS 325 Presentational Speaking (3)

CRS 331 Interpersonal Communication (3)

WRT 307 Adv. Writing Studio: Professional Writing (3)

WRT 301 Adv. Writing Studio: Civic Writing (3)

WRT 302 Adv. Writing Studio: Digital Writing (3)

IST 444 Information Reporting & Presentation (3)

Relationship Management: (Choose 6 credits)

CRS 430 Intercultural Communication (3)

SHR 355 Strategic Human Resource Management (3)

SWK 326 Persons in Social Context (3)

SWK 328 Human Diversity in Social Contexts (3)

BPS 382 Leading Cooperative Negotiations (3)

OGL 342 Customer Relations Leadership (3)

Business Processes: (Choose 6 credits)

ACC 151 Introduction to Financial Accounting (4)

LPP 255 Introduction to the Legal System (3)

BPS 300 Practical Financial Applications for Professional Studies (3)

IST 335 Introduction to Information-Based Organizations (3)

GET 234 Effective Collaboration in a Globally Distributed Environment (1.5)

GET 235 Leveraging Emerging Technologies (1.5)

Program/Project/Process Management: (Both Required)

BPS 211 Introduction to Professional Studies (3)

BPS 411 Senior Seminar (3)

Program of Study Requirements: Knowledge Management (30 credits)

Introduction (Required)

KNM 301 Introduction to Knowledge Management (3)

Data Science (Choose 9 credits)

GET 236 Enterprise Data Analysis: Tools and Techniques (1.5)

GET 336 Advanced Enterprise Data Analysis: Tools and Techniques (1.5)

IST 352 Information Analysis of Organizational Systems (3)

IST 359 Introduction to Database Management Systems (3) Prerequisite: IST 352

ECN 301 Intermediate Microeconomics (3)

MAS 362 Decision Tools for Management (3)

Knowledge Management (Choose 9 credits)

IST 445 Managing Information Systems Projects (3)

KNM 401 Professional Issues in Knowledge Management (3)

ECS 203 Introduction to Technology (3)

OGL 472 Organizational Leadership

Role of Technology/Data Security (Choose 3 credits)

IDE 456 Computers as Critical Thinking Tools (3)

CIS 483 Introduction to Computer and Network Security (3)

IST 352 Information Analysis of Organizational Systems (3)

PHI 378 Minds and Machines (3)

PSC 318 Technology, Politics and Environment (3)

Communication/Social Media (Choose 3 credits)

IST 486 Social Media in the Enterprise (3)

CRS 338 Communication in Organizations (3)

WRT 401 Advanced Workshop in Technical Communications: Design methodology (2) and

WRT 402 Advanced Workshop in Technical Communications: Prototyping and Construction (1)

WRT 302 Advanced Writing Studio: Digital Writing (3)

WRT 426 Studies in Writing, Rhetoric and Information Technology (3) Creativity/Organizational Skills (Choose 3 credits)

IDS 401 What's the Big Idea: Technology Innovation (3)

EEE 439 Entrepreneurship and Digital Commerce (3)

EEE 440 Social Entrepreneurship in Action (3)

Note: The degree is administered by University College with the involvement of other schools and colleges within Syracuse University. Each student should consult with their UC Academic Advisor to structure a plan for degree completion.

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## Knowledge Management

Certificate in Knowledge Management

Contact:  
Academic Director: Arthur Jensen, Senior Associate Dean/Professor, College of Visual and Performing Arts, 315-443-5890, [adjensen@syr.edu](mailto:adjensen@syr.edu)  
Administrative Director: Christine M. Praino, Senior Program Administrator, University College, 315-443-1317, [cmpraino@syr.edu](mailto:cmpraino@syr.edu)

Faculty:  
Faculty from schools/colleges across campus, in addition to Richard Garza.

Description:  
Understand the role of technology, its use as a resource tool in organizations & society; understand social media, data management, and information security. Make sense of the amount of data available, problem-solve, manage collaborative, diverse teams, and propose creative solutions. Develop tasks and work processes for desired organizational outcomes, work face-to-face or virtually, and critically and ethically assess big data.

Admission:  
Associate degree or 60 college credits.

Requirements:  
Courses: 15 credits in upper division major/concentration courses as indicated: KNM 301, IST 352, IDE 456, WRT 302, KNM 401.

Degree: Certificate in Knowledge Management

Total Credits: 15

Note:  
The certificate is administered by University College with the involvement of other schools and colleges of Syracuse University. Each student should consult with their UC Academic Advisor to ensure certificate completion.

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## Liberal Arts

Contact: University College Student Administrative Services 315-443-3261

The Associate in Arts in Liberal Arts degree (A.A.) provides an interim credential for students working toward the baccalaureate degree. Offered under the auspices of The College of Arts and Sciences, Syracuse University's founding college, the degree provides a sound general education in the liberal arts by combining coursework in the humanities, the natural and social sciences, and mathematics. Students earning the associate's degree must complete a minimum of 30 credit hours of Syracuse University coursework while enrolled as a part-time student at University College.

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## Liberal Studies

Contact: University College Student Administrative Services 315-443-3261

The B.A. in Liberal Studies provides a general education in the areas of humanities, social sciences, mathematics, and natural sciences. Offered under the auspices of The College of Arts and Sciences, Syracuse University's founding college, the degree provides the opportunity to develop the skills and resources that today's employers want. Students earning the bachelor of liberal studies degree must complete a minimum of 30 credit hours of Syracuse University coursework while enrolled as a part-time student at University College.

# Courses

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Courses listed below belong to University College and meet the requirement of UC's Bachelor of Professional Studies degree programs. In addition, University College offers part-time students access to most courses offered across SU's schools and colleges. Click here for a current list of evening, online and flexible course offerings, or use MySlice to view all SU courses.

## Bachelor Of Professional Studies

### BPS 100 Selected Topics 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### BPS 101 Introduction to Science, Technology, and Society 3 Y

Crosslisted with: STS 101

Assessing technological innovations and their impact on society. Economic, political, and ethical considerations in development of public policy. Examples will include biotechnology and energy technology.

### BPS 200 Selected Topics BPS 1-3

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### BPS 211 Introduction to Professional Studies 3 Y

Career and academic program planning. Survey of professional skills including meeting facilitation, project budgeting, public speaking, writing, and research skills. Introduces such professional competencies as ethics, diversity, teamwork, negotiation, and decision-making skills. Focus on goals and careers. Sophomore standing.

### BPS 270 Experience Credit 1-6 IR

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### BPS 290 Independent Study 1-6 IR

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

### BPS 300 Selected Topics BPS 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### BPS 382 Leading Cooperative Negotiations 3 IR

Formulate and implement negotiation strategies with reference to fundamental concepts, current research, principles, and business application. Examine case studies and assess strategies in various diverse contexts. Lead and create a personalized negotiation framework.

### BPS 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

### BPS 411 Senior Seminar 3 Y

Bachelor of professional studies (B.P.S.) curriculum summary and strategic future decision-making. Objectives: 1) adaptation in a dynamic environment, 2) acquire tools for decision-making, 3) build professional skills for transition to future conditions. Focus on integration of B.P.S. professions.

### BPS 470 Experience Credit 1-6

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing. R

### BPS 490 Independent Study 1-6

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department. R

## Creative Leadership

### CRL 301 Introduction to Creative Leadership 3 Y

Introduction to concepts of creative leadership. Principles related to foundational competencies of creative problem-solving; divergent thinking; gathering and using data to make informed decisions; and strategic and visionary thinking.

## Knowledge Management

### KNM 301 Introduction to Knowledge Management 3 Y

Introduction to knowledge management. Provides students with an understanding of theoretical and technical concepts, models of knowledge management and how they contribute to return-on-investment and return-on-investment driving organizational success.

### KNM 401 Professional Issues in Knowledge Management 3 Y

Discuss critical issues facing organizations that implement and sustain knowledge management systems, identify approaches to address issues and evaluate best practices in light of emerging technologies, using case studies. PREREQ: KNM 301.

## Legal Studies

### LGL 201 Introduction to Legal Systems and Legal Ethics 3 IR

Examine definitions and sources of law and organization of judicial system. Representative substantive areas of law covered to develop case analysis, legal thinking, and writing. Codes of professional ethics for lawyers and non-lawyers also explored.

### LGL 322 Alternative Dispute Resolution 3 SI

Fundamentals of arbitration, mediation, and negotiation in legal disputes and litigation are examined. Practical applications in business, community, and domestic settings studied. Increasing use of court ordered ADR explored. Procedures, skills, and ethics are covered. PREREQ: LGL 201.

### LGL 403 Business Organizations 3 IR

Review of the major areas of business organizational law. Comparisons of sole proprietorship, partnership, corporation, and agency. Focus on corporate operations. Employer/employee relationship and statutes and regulations affecting employment are examined. PREREQ: LGL 201.

## Organizational Leadership

### OGL 300 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

OGL 342 Customer Relations Leadership

3 IR

World-class practices in customer relations.

Review of current research, critical analysis of case studies, workplace applications. Designing and leading plans and change, developing support structures and processes. Assessment and evaluation.

OGL 400 Selected Topics 1-3 IR

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. R

OGL 472 Organizational Leadership 3 IR

Theoretical models and experiential practices of leadership. Concepts, best practices, and business applications. Acquire competency as a strategist, facilitator, change agent, and navigator.

# Faculty

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Daniel G. Cantone, Adjunct, Organizational  
Leadership  
J.D., Syracuse University College of Law,  
1981

Renee V. Downey, Adjunct, Organizational  
Leadership  
Ph.D., Syracuse University, 1996

Michael Evans, Adjunct, Professional Studies  
Ph.D. University of Sarasota, 2002

Richard Garza, Adjunct, Professional Studies  
M.S., Syracuse University, 2010

Bartholomew Murphy, Adjunct,  
Professional Studies  
B.S., University of Missouri/Columbia College,  
1981

Marcene S. Sonneborn, Adjunct,  
Professional Studies  
M.B.A., Syracuse University, 1989

# SUNY-ESF (Partner Institution)

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1 Forestry Drive, Syracuse, NY 13210  
[www.esf.edu/](http://www.esf.edu/)

## About The College

State University of New York  
College of Environmental Science and Forestry (ESF)

Quentin Wheeler, President  
223 Bray Hall, 470-6681

S. Scott Shannon  
Associate Provost for Instruction and Dean of the Graduate School  
227 Bray Hall, 470-6599

Susan H. Sanford  
Director of Undergraduate Admissions  
218 Gateway Center, 470-6600

The State University of New York College of Environmental Science and Forestry (ESF) adjoins the Syracuse University campus and is closely associated with the University. The College is a doctoral-granting institution of the State University of New York. ESF enrolls approximately 2,350 students, including 550 at the graduate level.

The College has extensive modern laboratories, classrooms, and equipment and instrumentation. Off-campus facilities include 25,000 acres of forest land at eight locations — four in the Adirondacks, three elsewhere in New York state and one in Costa Rica, used for instruction, demonstration, and research. Two-year programs leading to the associate's degree in forest technology, surveying technology, and environmental and resources conservation are offered at The Ranger School in Wanakena, New York.

A variety of master's and doctoral programs are also available at ESF. Syracuse University juniors and seniors are invited to learn more about these programs and about ways to accelerate admission into graduate programs by inquiring at 227 Bray Hall.

ESF students have the same privileges as SU students with regard to health services and the use of dining halls, library facilities, testing services, and athletic and recreational facilities. They also share the wide range of social and cultural resources available at the University. Students at ESF and Syracuse University take courses on both campuses to enrich and complement their major programs.

## Undergraduate Programs

### ESF – Undergraduate Programs

The College offers undergraduate study in the following areas:  
Degree Programs and Areas of Study

The College is authorized to award the following undergraduate degrees. Enrollment in programs that are not registered or otherwise approved programs may jeopardize a student's eligibility for certain financial aid programs. Further descriptions and coursework requirements of the individual academic programs may be found online at [www.esf.edu/admissions/programs.htm](http://www.esf.edu/admissions/programs.htm)

Associate in Applied Science (A.A.S.)  
Environmental and Resources Conservation (HEGIS Code 5403)  
Forest Technology (HEGIS Code 5403)  
Land Surveying Technology (HEGIS Code 5309)

Bachelor of Landscape Architecture (B.L.A.)  
Landscape Architecture (HEGIS Code 0204)

Bachelor of Science (B.S.)  
Aquatic and Fisheries Science (HEGIS Code 0115)  
Bioprocess Engineering (HEGIS Code 0905)  
Biotechnology (HEGIS Code 0499)  
Chemistry (HEGIS Code 1905) with options in biochemistry and organic chemistry of natural products, environmental chemistry, or natural and synthetic polymer chemistry.  
Conservation Biology (HEGIS Code 0420)  
Construction Management (HEGIS Code 0599) with an elective concentration in sustainable construction and renewable materials.

Environmental Biology (HEGIS Code 0420)  
Environmental Education and Interpretation (HEGIS Code 0499)

Environmental Health (HEGIS Code 0420, beginning fall 2014)

Environmental Resources Engineering (HEGIS Code 0999)

Environmental Science (HEGIS Code 0420) with options in renewable energy, environmental information and mapping, watershed science, health and the environment, earth and atmospheric systems science, environmental analysis, or environmental engineering science.

Environmental Studies (HEGIS Code 0201) with options in biological science applications; environmental policy, planning and law; or environmental communication, culture and writing.

Forest Ecosystem Science (HEGIS Code 0114)

Forest Engineering (HEGIS Code 0999)

Forest Health (HEGIS Code 0114)

Forest Resources Management (HEGIS Code 0115)

Natural Resources Management (HEGIS Code 0115)

Paper Engineering (HEGIS Code 0999) with a minor in management.

Paper Science (HEGIS Code 0999) with a minor in management.

Sustainable Energy Management (HEGIS Code 0115)

Wildlife Science (HEGIS Code 0107)

Wood Products Engineering (HEGIS Code 0999)

Bachelor of Landscape Architecture/Master of Science

B.L.A./M.S. Fast Track (HEGIS Code 0204)

ESF Academic Minors

ESF offers a variety of Academic Minors that are open to SU students. Each ESF minor, like other traditional academic minors offered by SU's various schools and colleges, includes at least 18 credit hours of coursework. ESF's minors focus on a variety of areas of specialized study of the environment, ranging from landscape architecture to natural resources and environmental policy.

Please see list and description of ESF Minors available to SU Students under Academic Offerings.

## Graduate Programs

ESF Graduate Programs

The College offers graduate study in the following areas:

The College is authorized to award the following graduate degrees. Enrollment in programs that are not registered or otherwise approved programs may jeopardize a student's eligibility for certain financial aid programs. Further descriptions and coursework requirements of the individual academic programs may be found online at [www.esf.edu/graduate/acadprog.htm](http://www.esf.edu/graduate/acadprog.htm)

Advanced (Graduate) Certificates

Environmental Decision Making (HEGIS Code 0420) for Syracuse University students only.

Advanced Engineering Tools (HEGIS Code 0999)

Bioprocessing (HEGIS Code 0199)

Master of Forestry (M.F.)

Forest Management and Operations (HEGIS Code 0115)

Master of Landscape Architecture (M.L.A.)

Landscape Architecture (HEGIS Code 0204) with areas of study in community design and planning, cultural landscape studies and conservation, or landscape and urban ecology.

Master of Professional Studies (M.P.S.)

Environmental and Forest Biology (HEGIS Code 0499) with areas of study in applied ecology, chemical ecology, conservation biology, ecology, entomology, environmental interpretation, environmental physiology, fish and wildlife biology and management, forest pathology and mycology, plant biotechnology, or plant science and biotechnology.

Environmental and Forest Chemistry (HEGIS Code 1905) with areas of study in biochemistry, environmental chemistry, organic chemistry of natural products, or polymer chemistry.

Environmental and Resource Engineering (HEGIS Code 0999) with areas of study in environmental management, environmental resources engineering or geospatial information science and engineering.

Environmental Science (HEGIS Code 0420) with areas of study in biophysical and ecological sciences, coupled natural and human systems, ecosystem restoration, environmental and community land planning, environmental communication and participatory processes, environmental monitoring and modeling, environmental policy and democratic processes, or water and wetland resource studies.

Environmental Studies (HEGIS Code 0201) with options in biological science applications; environmental policy, planning and law; or environmental communication, culture and writing.

Forest Resources Management (HEGIS Code 0115) with areas of study in ecology and ecosystems; economics, governance and human dimensions; management; or monitoring, analysis and modeling.

Paper and Bioprocess Engineering (HEGIS Code 0999) with areas of study in bioprocess engineering, biomaterials engineering, or paper science and engineering.

Sustainable Construction Management Engineering and Wood Science (HEGIS Code 0999) with areas of study in construction management, sustainable construction and wood science.

Master of Science (M.S.)

Environmental and Forest Biology (HEGIS Code 0499) with areas of study in chemical ecology, conservation biology, ecology, entomology, environmental interpretation, environmental physiology, fish and wildlife biology and management, forest pathology and mycology, or plant science and biotechnology.

Environmental and Forest Chemistry (HEGIS Code 1905) with areas of study in biochemistry, environmental chemistry, organic chemistry of natural products, or polymer chemistry.

Environmental and Resource Engineering (HEGIS Code 0999) with an option in forest engineering and areas of study in ecological engineering, environmental resources engineering, geospatial information science and engineering, or water resources engineering.

Environmental Science (HEGIS Code 0420) with areas of study in biophysical and ecological economics, coupled natural and human systems, ecosystem restoration, environmental and community land planning, environmental communication and participatory processes, environmental monitoring and modeling, environmental policy and democratic processes, or water and wetland resource studies.

Environmental Studies(HEGIS Code 0201)

Forest Resources Management (HEGIS Code 0115) with areas of study in ecology and ecosystems; economics, governance and human dimensions; management; monitoring, analysis and modeling.

Landscape Architecture (HEGIS Code 0204) with areas of study in community design and planning, cultural landscape studies and conservation, or landscape and urban ecology.

Paper and Bioprocess Engineering (HEGIS Code 0999) with areas of study in bioprocess engineering, biomaterials engineering, or paper science and engineering.

Sustainable Construction Management and Wood Science (HEGIS Code 0999) with areas of study in construction management, sustainable construction and wood science.

Doctor of Philosophy (Ph.D.)

Environmental and Natural Resources Policy (HEGIS Codes 0420 and 0115)

Environmental and Forest Biology (HEGIS Code 0499) with areas of study in chemical ecology, conservation biology, ecology, entomology, environmental interpretation, environmental physiology, fish and wildlife biology and management, forest pathology and mycology, or plant science and biotechnology.

Environmental and Forest Chemistry (HEGIS Code 1905) with areas of study in biochemistry, environmental chemistry, organic chemistry of natural products, or polymer chemistry.

Environmental and Resource Engineering (HEGIS Code 0999) with areas of study in ecological engineering, environmental resources engineering, geospatial information science and engineering, or water resources engineering.

Environmental Science (HEGIS Code 0420) with areas of study in biophysical and ecological economics, coupled natural and human systems, ecosystem restoration, environmental and community land planning, environmental communication and participatory processes, environmental monitoring and modeling, environmental and natural resources policy or water and wetland resource studies.

Forest Resources Management (HEGIS Code 0115) with areas of study in forest ecosystem science and applications, natural resources management, quantitative methods in ecology and ecosystems; economics, governance and human dimensions; management; and monitoring, analysis and modeling.

Paper and Bioprocess Engineering (HEGIS Code 0999) with areas of study in bioprocess engineering, biomaterials engineering and paper science and

Sustainable Construction Management and Wood Science (HEGIS Code 0999) with areas of study in construction management, sustainable construction and wood science.

## Academic Offerings

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### Bioprocess Science Minor

The bioprocess science minor gives students an understanding of the rapidly developing bioprocessing industry, which uses the chemical, physical and biological processes developed by living organisms or their cellular components in a type of advanced manufacturing of specialty commercial products. This minor is available to SU students as well as ESF students. Bioprocess science will influence diverse fields as it becomes widely used, such as in the production of energy from sustainable sources. The bioprocess science minor is available to all ESF and SU undergraduate students (except students in the bioprocess engineering program) who maintain a minimum cumulative grade point average of 2.8, and who desire to develop greater knowledge of bioprocess science and its related fields, with permission of the Paper and Bioprocess Engineering Curriculum Director (313 Walters Hall). Students should declare the minor by the end of the sophomore year. Successful completion of the minor will be noted on the student's transcript. Eighteen credit hours (6 courses) are required to satisfy the minor.

Specified courses: PSE 370 Principles of Mass and Energy Balance (3); BPE 310 Colloid and Interface Science (3); BPE 420 Bioseparations (3); and at least three directed elective courses available from both ESF and Syracuse University, including biology, forestry, chemical engineering, chemistry, paper science and engineering, bioprocess engineering, and environmental and biological engineering. Students are required to complete at least one course from a list of biological and chemistry electives and at least one course from a list of engineering electives. The complete list of courses is available from faculty advisors.

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### Construction Management

The ESF minor in construction management prepares students for management careers in the construction industry. This minor is available to SU students as well as ESF students. The basic objective of the minor is to provide a fundamental understanding of the various methods used to take the design into the field and construct a quality structure in the most efficient and effective manner with minimal environmental impacts. To complete this minor, students must pass the following courses with a cumulative GPA of 2.0 or higher.

Admission to the minor requires junior status, a cumulative GPA of 2.5 or higher, and permission of the construction management and wood products engineering undergraduate curriculum coordinator (220 Baker).

Required courses (3 credits each): CM 342 Light Construction; CM 343 Construction Estimating; CM 453 Construction Planning and Scheduling; CM 454 Construction Project Management.

Two additional courses chosen from the following (3 credits each)

CM 330 Building Codes and Zoning Practice; CM 331 Construction Safety; CM 335 Cost Engineering; CM 350 Construction Methods and Equipment; CM 444 Materials Marketing;  
CM 455 Construction Contracts and Specifications.

Total credits required: 18

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### Landscape Architecture Studies

The ESF minor in landscape architecture provides an understanding of the natural and human factors that shape our physical environment. This minor is available to SU students as well as ESF students. To complete this minor, students must pass the following courses and an additional landscape architecture course approved by the landscape architecture undergraduate curriculum director with a cumulative grade point average of 2.0 or higher.

Admission to the minor requires a cumulative grade point average of 2.5 or higher and permission (ESF petition) of the Landscape Architecture Undergraduate Curriculum Director (331 Marshall Hall).

Required courses (3 credits each): LSA 220 Introduction to Landscape Architecture; LSA 311 Natural Processes in Planning and Design; LSA 312 Place/Culture/Design; LSA 305 History of Landscape Architecture I; LSA 306 History of Landscape Architecture II; LSA 451 Comprehensive Land Planning; LSA 496 Special Topics in Landscape Architecture (recent topics include Community Development Process, Urban Design Seminar, 20th-Century Landscape and Rural Community Design Studio)

Total credits required: 18

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## Natural Resources And Environmental Policy Minor

The ESF minor in natural resources and environmental policy is intended to develop an awareness of the interrelationships among parts of the biophysical environment and policy development; to develop a focused special application within the student's major; and to develop the ability to intelligently interact with natural resources and environmental specialists in planning and policy formation. This minor is available to SU students as well as ESF students. To complete this minor, students must pass the following courses with a cumulative grade point average of 2.0 or higher.

Admission to the minor requires junior status, a cumulative grade point average of 2.5 or higher, and permission of the Forest and Natural Resources Management Undergraduate Curriculum Coordinator (320 Bray Hall). Students should also have completed a basic course in microeconomics, political science, and general biology.

Required courses (3 credits each): FOR 321 Forest Ecology and Silviculture; FOR 333 Managerial Economics for Environmental Professionals; FOR 360 Principles of Management; FOR 465 Natural Resources and Environmental Policy; FOR 488 Natural Resources Administration Law; ENS 550 Environmental Impact Analysis: Principles and Strategies

Total credits required: 18

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## Paper Science Minor

The paper and related industries (including pulp, mineral, chemical and machinery suppliers) continually seek knowledgeable and skilled employees. This minor is available to SU students as well as ESF students. Each year, companies hire numerous graduates of chemical, mechanical and environmental engineering programs as well as chemists and other environmental professionals in addition to paper science and engineering graduates. Salaries for new hires are among the highest for all fields of study at the bachelor's degree level. This minor gives students a thorough understanding of the paper industry that will allow them to apply their major field of study to this growth industry. The paper science minor is available to all ESF and SU undergraduate students (except students in the paper science and paper engineering programs) who maintain a minimum cumulative grade point average of 2.8 and with permission of the Paper and Bioprocess Engineering Curriculum Director (313 Walters Hall). A student should declare the minor by the end of the sophomore year, but may petition to his/her own department for enrollment at any time after that. Successful completion of the minor will be noted on the student's transcript. Eighteen credit hours (6 courses) in paper science courses are required.

Specified courses:

PSE 300 Introduction to Papermaking (3); PSE 302 Pulp and Paper Laboratory Skills (1); PSE 370 Principles of Mass and Energy Balance (3); and directed electives courses (at least 11 credits): PSE 350 Pulping and Bleaching Processes (3); PSE 351 Pulping and Bleaching Laboratory (2); PSE 465 Paper Properties (4); PSE 466 Paper Coating and Converting (2); PSE 467 Papermaking Wet End Chemistry (3); PSE 468 Papermaking Processes (3).

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## Recreation Resource And Protected Area Management -ESF

This minor provides students with the opportunity to combine visitor management with protected area management. This minor is available to SU students as well as ESF students. Understanding the need to balance the opportunity for visitor experiences with protecting and stewarding protected areas provides professional insight into planning and managing those areas for limited visitor access. Understanding the motivations, preferences, and behavior of recreational users is necessary to integrate the human dimensions into protected area management with consideration of the social and environmental factors related to such management. Protected area managers need to be able to manage both the resource itself as well as a wide variety of users, such as campers, hikers, bird watchers, boaters, nature photographers and others who enjoy nature-based experiences in extensive protected area environments owned by public agencies, private landowners, or NGOs.

Admission to the minor requires students to have a cumulative grade point average of 2.75, and permission of the Forest and Natural Resources Management Curriculum Director (320 Bray Hall). Nineteen credit hours of courses are required.

Specified courses:

EFB 320 General Ecology (4); EFB 416 Introduction to Environmental Interpretation (3); FOR 372 Fundamentals of Outdoor Recreation (3); FOR 475 Human Behavior and Recreation Visitor Management (3); FOR 476 Ecotourism and Nature Tourism (3); FOR 478 Wilderness and Wildlands Management (3).

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## Renewable Energy - ESF

The development of sustainable sources of energy has become a critical national and global issue due to concerns about the quality and quantity of the different potential resources, energy security, and potential impacts of each on the environment and human health. This minor is available to SU students as well as ESF students. It is essential that our society and energy professionals gain an understanding of production and conversion of different forms of energy, their current and future supplies, the markets and policy mechanisms that regulate their supply, and the associated impacts on the environment for each fuel. In the past both traditional and renewable energy sources have been studied one resource at a time and usually from the perspective of a single discipline. This minor will provide students an opportunity to examine different sources of traditional and renewable energy simultaneously in the context of our total energy use using a systems perspective. Students will be exposed to views from a variety of disciplines as they wrestle with a wide array of issues related to current and future energy supply and use. The understanding and development of renewable energy requires expertise from a wide range of disciplines. This minor will be interdisciplinary in nature with instructors from different disciplines teaching the core courses. The Renewable Energy minor is available to all ESF and SU undergraduate students (except students who are in the Renewable Energy option in Environmental Science) who have a GPA of 2.75 or better by the end of their sophomore year, and with permission of the Environmental Science Curriculum Director (358 Illick Hall). The minor will require a minimum of 18 credits, 15 of which are required courses. The remaining 3 credits can be selected from the list of suggested courses.

Specified courses:

EFB 120 Global Environment (3); ESC 325 Energy Systems (3); ESC 335 Renewable Energy Systems (EFB 120 is a pre-req) (3); ESC 422 Energy Markets and Regulation (3); ESC 450 Renewable Energy Capstone Planning (1); ESC 460 Renewable Energy Capstone Seminar (2) and a minimum of three credits from the following list of suggested courses: BPE 441 Biomass Energy (3); EFB 516 Ecosystems (3); EFB 518 Systems Ecology (4); ERE 351 Basic Engineering Thermodynamics (2); ERE 519 Green Entrepreneurship (3); FCH 360 Physical Chemistry I (3); FCH 571 Wood Chemistry I: General Wood Chemistry (2); FOR 415 Forestry Consulting and Wood Procurement (3); PSE 361 Engineering Thermodynamics (3); PSE 370 Principles of Mass and Energy Balance (3).

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## Sustainable Construction Management Minor

The ESF minor in sustainable construction prepares students for careers related to sustainable construction. This minor is available to all ESF and SU undergraduate students. The basic objective of the minor is to provide a fundamental understanding of the sustainable concepts and methods used to take a design into the field and build a sustainable structure in the most efficient and effective manner with minimal environmental impacts. Eighteen credit hours (6 courses) taken in residence are required to complete the minor. To complete this minor, students must pass six of the following courses taken in residence with a cumulative GPA of 2.0 or higher.

Admission to the minor requires a cumulative grade point average of 2.5 or higher, and permission of the Sustainable Construction Management and Engineering undergraduate curriculum coordinator or Department Chair.

Choose 6 courses (18 credits) from the following:

- CME 215 Sustainable Construction (3)
- CME 387 Renewable Materials for Sustainable Construction (3)
- CME 305 Sustainable Energy Systems for Buildings (3)
- CME 306 Engineering Materials for Sustainable Construction (3)
- CME 304 Environmental Performance Measures for Buildings (3)
- CME 343 Construction Estimating (3)
- CME 405 Building Information Modeling (3)
- CME 422 Composite Materials for Sustainable Construction (3)
- CME 565 Sustainable Innovations in Residential Construction (3)
- CME 444 Materials Marketing (3)
- CME 453 Planning and Scheduling (3)
- CME 454 Project Management (3)