

**GRADUATE  
COURSE CATALOG**

---

**2015 - 2016**

**SYRACUSE UNIVERSITY**

## Graduate Course Catalog Table of Contents

3	Welcome and Course Catalog Purpose and Disclaimer Statement	15	Academic Rules
3	About Syracuse University	42	Academic Offerings
3	General Information	55	Other Programs
3	Tuition and Fees	59	Guide To Reading Course Descriptions
3	Academic Calendar	61	School of Architecture
3	Admissions and Financial Aid	71	College of Arts & Sciences
4	Hours of Operation	179	School of Education
4	University Facilities	239	College of Engineering and Computer Science
5	Library	316	David B. Falk College of Sport and Human Dynamics
5	Information Technology and Services	317	Child and Family Studies
6	Health Services	323	Public Health, Food Studies and Nutrition
6	Career Services	330	School of Social Work
7	Syracuse University Internship Opportunities	334	Sport Management
7	Interdisciplinary and Specialized Study	351	School of Information Studies
7	The CASE Center	378	College of Law
8	The Graduate School	409	Martin J. Whitman School of Management
8	Syracuse University Graduation Rate	441	Maxwell School of Citizenship and Public Affairs
8	Adjunct Faculty and Teaching Assistants	495	S.I. Newhouse School of Public Communications
9	Syracuse University Roster	527	College of Visual and Performing Arts
10	Student Rights (FERPA)	528	School of Art and Design
11	Student Complaint Process	536	Drama
11	Distance Learning Students - Information	536	Communication and Rhetorical Studies
14	Nondiscrimination and EEO Policy	538	Setnor School of Music
15	Campus Safety	575	University College
		577	SUNY-ESF (Partner Institution)

## GRADUATE COURSE CATALOG

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.

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.

Elizabeth D. Liddy  
Interim Vice Chancellor and Provost

## 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 [\[comptroller.syr.edu/comptroller/uploads/Bursar%20Tuition%20and%20Fees%202015%202016.pdf\]\(http://comptroller.syr.edu/comptroller/uploads/Bursar%20Tuition%20and%20Fees%202015%202016.pdf\)](http://</a></p></div><div data-bbox=)

## Academic Calendar

The Academic Calendar for 2015-16 is available at <https://syr.edu/registrar/acadcalendars/acaddl2015-16.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 <http://financialaid.syr.edu>

## 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

## GRADUATE COURSE CATALOG

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 post secondary 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.

### Non Immigrant Alien Students

Syracuse University is authorized under federal law to enroll non immigrant 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 building hours may be found at <http://classrooms.syr.edu/home/policy-on-use-and-locking-of-academic-buildings/#establishing-building-hours>

## University Facilities

Syracuse University students learn, study, and play among the 300 buildings on 900 acres that make up the campus. The University's 145-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, the Center for Science and Technology, and on South Campus at 621 Skytop Road.
- The Maxwell School of Citizenship and Public Affairs is housed in Primarily in Maxwell Hall and Eggers Hall, additional facilities in Lyman Hall, and Crouse Hinds Hall.
- The College of Visual and Performing Arts is comprised of the Departments of Art, Design, Transmedia, Drama, and Communication and Rhetorical Studies; and the Setnor School of Music. The Departments of Art and Design are located in and the Dorothea Ilgen Shaffer Art Building, Smith Hall, the Comstock Art Facility, and the Nancy Cantor Warehouse in downtown Syracuse. The Department of Drama is located in the Regent Theatre Complex, which also houses Syracuse Stage, a regional equity theater company. The Setnor School of Music is located in Crouse College. The Department of Communication and Rhetorical Studies is located in Sims Hall and the Department of Transmedia is located in the Dorothea Ilgen Shaffer Art Building.
- 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 on South Campus at 621 Skytop Road.
- The College of Law is located in Dineen Hall.
- The David B. Falk College of Sport and Human Dynamics includes the Department of Child and Family Studies, the School of Social Work; and the Department of Sport Management located in the recently renovated Falk College Complex (the former College of Law). The Public Health and the Nutrition Science and Dietetics Programs are located in the Falk College Complex, along with the Dean's Office and other administrative operations, including Student Services. The Food Studies Program is located In Lyman Hall. The Department of Marriage and Family Therapy is located in off-campus facilities in Downtown Syracuse.
- The Martin J. Whitman School of Management is housed in the School of Management building, located at University Avenue and Marshall Street.
- The S.I. Newhouse School of Public Communications is located in the three-

building Newhouse Communications Complex along University Place.

- The School of Information Studies is located in Hinds Hall.
- 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 Tennity 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 are an active partner in the teaching, learning, and research mission of the University. The Libraries offer extensive print and online collections in a wide range of formats, knowledgeable librarians and staff, and up-to-date technology in support of all SU academic programs. The Learning Commons in Bird Library offers 24-hour access, technology, and research help, all in a single location. The Ask Us section of the website outlines the range of options for reference and research help, available in-person, via email, chat, text, or phone.

The Libraries' diverse collections covering all university academic disciplines include more than 3.5 million printed volumes, over 60,000 online and print journals, as well as extensive collections of maps, images, sound and video recordings, music scores, microforms, rare books, and manuscripts. Over 500 research databases contain the full text and images from hundreds of thousands of e-books, journals, and newspapers. All are discoverable via the Summon searchbox on the Libraries' homepage. Online resources are accessible to SU-affiliated users from any location, including residence halls, off-campus apartments, and international centers.

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 designated quiet study spaces. Library workstations, including Macs and PCs, are equipped with standard campus software applications, specialized software for multimedia production, GIS, and adaptive technologies for disabled users.

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 and computer cluster; houses materials in science disciplines, technology, mathematics, and technical arts;
- The Architecture Reading Room, located adjacent to the School of Architecture in Slocum Hall;
- The Belfer Audio Archive, which houses historic sound recording collections, and;
- The SU Libraries Facility, a high-density storage center on South Campus.

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

## Information Technology Services

Center for Science and Technology, 315-443-2677  
<http://ITS.syr.edu>  
[help@syr.edu](mailto:help@syr.edu)

Information Technology 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 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 & non-urgent 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.

## Student Health

### Insurance

Unexpected health care expenses can jeopardize a student's financial stability or create barriers toward completing a degree. While all students can receive primary care through Syracuse University Health Services, services needed beyond primary care, such as hospitalization, surgery, or specialty care, are performed off-campus. Health insurance provides students with the reassurance that they are prepared for any medical situation.

Beginning in the 2015-16 academic year all incoming, newly-matriculating full-time students (graduate, law, and undergraduate), all full-time matriculated international students (current and incoming, graduate and undergraduate), and all graduate student Fellows will be subject to the insurance requirement. By the 2016-17 academic year, all full-time matriculated students will be subject to the requirement.

Students should always carry their health insurance information from them. Additional information, including a Frequently Asked Questions page, is available on our website <http://health.syr.edu/new-student-health-insurance-plan.html>

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 jobs and 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 and navigating the internship/job search process. They can also help students build application documents such as resumes and cover letters, and strengthen interview skills. Alumni Networking. The 'CuseConnect LinkedIn group 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. In addition, alumni post jobs and internships within 'CuseConnect to provide students with opportunities within the organizations in which they work. Students can also learn about opportunities by keeping an eye on #HireOrange

on Twitter and by following the @WorkingOrange account. Employer Connections. Each semester, Career Services hosts large-scale career fairs and on-campus interviews to connect students with employers in their desired industries. Typically, several hundred employers attend these fairs and hold on-campus interviews, 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: Syracuse University Career Services

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.

## Academic Credit

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. 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.

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 an ESD/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 by providing industry with technical expertise in data fusion, data mining, command and control, security and assurance, wireless communication, intelligent computing, sensor network/management, unmanned aerial systems, and other related areas.

## GRADUATE COURSE CATALOG

CASE serves as an access point for industry to engage Syracuse University, supporting programs for students as well as sponsored research projects. Through CASE's Co-op and Internship Program, graduate students can 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 opportunity to work with 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

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 2008, 80.41 percent had earned their bachelor's degrees as of August 2014. 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.

## Graduate Student Life

Graduate students at Syracuse University enjoy many academic, cultural, recreational, and social activities outside the classroom within the University's vibrant campus life.

Students can choose from more than 200 student organizations, including performing arts groups; sports teams; and student-run print, radio, and broadcast media, to name a few. The Graduate Student Organization (GSO) takes an active part in formulating graduate policy, exploring problems of concern to graduate students, and is represented on the University Senate and the University Board of Trustees.

Several recreational facilities on campus draw students all hours of the day for invigorating workouts. Students can challenge a friend to a game of squash at Archbold Gymnasium, or master hip hop during a late night dance class. Facilities also include weight machines, free weights, and cardiovascular exercise machines, along with basketball, racquetball, and handball

courts. For more structured activities, Syracuse University fields varsity teams in a number of sports for men and women. Some teams compete in the 50,000-seat Carrier Dome, located on campus.

Concert and lectures with nationally and internationally known presenters are held frequently at Hendricks Chapel and many other locations across campus. On-campus entertainment sources also include first-run and classic movies presented nearly every night of the week by various film societies; forums; art exhibitions; and plays. The Setnor School of Music organizes performances featuring students, faculty, and guest artists.

The Mary Ann Shaw Center for Public and Community Service offers students the opportunity to get involved in service projects and volunteer activities. Opportunities for involvement extend into the community as well, with the University-city Connective Corridor initiative linking the campus by bus with downtown galleries, museums, theaters, music venues, and cultural festivals.

Traveling exhibitions and student and faculty art are shown throughout the year, principally in the Joe and Emily Lowe Art Gallery on campus. For stage performances, the John D. Archbold Theater is home of the professional Equity company Syracuse Stage. The intimate Experimental Theater is used for student productions.

Students gather at the Schine Student Center on Main Campus to meet friends, grab lunch at Schine dining, or pick up art supplies at the main bookstore. The Goldstein Student Center provides the same atmosphere for students residing on South Campus.

## 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	1
Anthropology	1
Architecture	4
Art & Music Histories	1
Arts & Sciences - Honors	16
Arts & Sciences - Dean	3
Biology	2
Civil & Environmental Engineering	4
Communication Rhetorical Study	4
Communication Sciences & Dis	3
Counseling & Human Services	2



## GRADUATE COURSE CATALOG

Cultural Frndtn-Intergrp Dialog	2	Economics	31
Cultural Foundations Ed Curric	1	Ed-Instructional Technology	4
CVPA-Drama	23	Ed-Teaching & Leadership	15
CVPA-Foundation	5	Ed-Teach & Ldrship-Art Eductn	2
CVPA-School of Music	41	Ed-Teach & Ldrship Music	2
Department of Art at Comart	3	Ed-Teach & Ldrship Sci Teach	3
Department of Art at Shaffer	6	Elec Eng & Computer Science	48
Economics	1	A & S - Curriculum/Instruction	4
Ed-Teaching & Leadership	4	A & S - Women's Studies	3
Ed-Teach & Ldrship-Art Eductn	1	A & S - Writing Program	20
Ed-Teach & Ldrship Music	1	AASC	1
Elec Eng & Computer Science	8	African-American Studies	8
English	3	Anthropology	14
Exercise Science	27	Architecture	31
FALK Child & Family Studies	3	Art & Music Histories	4
FALK Marriage & Family Therapy	2	Biology	25
FALK Nutrition Sci & Dietetics	2	BMC Engineering	12
FALK Public Health	1	CVPA-Foundation	8
FALK Social Work	10	CVPA-School of Design	1
FALK Sport Management	1	CVPA-School of Music	15
Fashion & Design Technology	2	Chemistry	61
Forensic Science Institute	7	Civil & Environmental Engineering	13
Higher Education	1	Communication Rhetorical Study	10
History	1	Communication Sciences & Dis	3
Information Studies-Dean	28	Counseling & Human Services	7
Languages, Lit & Linguistics	29	Cultural Foundations Ed Curric	6
Law College	7	Department of Art at Comart	14
Mathematics	4	Department of Art at Shaffer	6
Maxwell Dean's Office	2	Earth Sciences	23
Mech and Aerospace Engineering	1	Economics	29
Philosophy	2	Ed-Instructional Technology	4
Psychology	4	Ed-Teaching & Leadership	13
Public Admin & International Affairs	4	Ed-Teach & Ldrship-Art Eductn	2
Public Communications	38	Ed-Teach & Ldrship Math	1
School of Design	19	Ed-Teach & Ldrship Music	2
School of Management	22	Ed-Teach & Ldrship Sci Teach	4
Sociology	5	Elec Eng & Computer Science	35
Transmedia Studies	15	Engineering-Dean's Office	1
University College - BPS	2	English	47
University College-Fin Stdt Sp	1	Exercise Science	9
University College-SCP Gen Ad	6	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

## TA'S by School, Department, or Division

A & S - Curriculum/Instruction	3
A & S - Women's Studies	4
A & S - Writing Program	20
African-American Studies	7
Aging Studies Institute	2
Anthropology	14
Architecture	31
Art & Music Histories	4
Biology	31
BMC Engineering	15
CVPA-Foundation	9
CVPA-School of Music	17
Chemistry	52
Civil & Environmental Engineering	13
Communication Rhetorical Study	11
Communication Sciences & Dis	4
Continuing Ed & Global Outreach	1
Counseling & Human Services	5
Cultural Foundations Ed Curric	6
Department of Art at Comart	12
Department of Art at Shaffer	5
Earth Sciences	17

## 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

Elizabeth D. Liddy B.A., M.S., Ph.D. (1988)  
Interim Vice Chancellor and Provost

Louis G. Marcoccia, B.A., M.S., C.P.A., Ed.D. (1975)  
Executive Vice President and Chief Financial Officer

Jean Gallipeau B.S., M.B.A., C.P.A. (2013)  
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

**Effective August 3: David Seaman B.A., M.A. (2015)**

**University Librarian and Dean of the Syracuse University Libraries**

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, Dean

### School of Education

Joanna O. Masingila, Dean

### College of Engineering & Computer Science

Chilukuri K. Mohan, Interim Dean

**Effective August 1: Teresa A. Dahlberg, Dean**

## GRADUATE COURSE CATALOG

### David B. Falk College of Sport and Human Dynamics

Diane Lyden Murphy, Dean

### School of Information Studies

Jeffrey Stanton, Interim Dean

### College of Law

Hannah Arterian, Dean

**Effective August 1 William C. Banks, Interim 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

### University College

Bethaida Gonzalez, 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 in accurate 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

## GRADUATE COURSE CATALOG

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 SUmmail, 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 SUmmail, 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.

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.

## Student Complaint Process

The Syracuse University Grievance Procedures Policy is available at <http://supolicies.syr.edu/studs/grievance.htm>. The Grievance Resolution process for graduate students is published at (<http://graduateschool.syr.edu/>). Complaint and grievance processes begin and are typically resolved at the department or school/college level.

If a complaint is not resolved satisfactorily internally (within the University), then students may file a complaint with the New York State Education Department (NYSED) which oversees higher education in New York. Their complaint process can be found at <http://www.highered.nysed.gov/ocue/spr/COMPLAINTFORMINFO.html>. Complaints may also be filed with the University's accrediting agency, Middle States Commission on Higher Education. See <http://www.msche.org/documents/ComplaintsInvolvingMemberCandidate.pdf> (can be accessed from <http://www.msche.org/?Nav1=POLICIES&Nav2=INDEX>).

This information is provided in compliance with the Code of Federal Regulations, Chapter 34, §668.43(b) ([http://www.ecfr.gov/cgi-bin/text-idx?SID=342e66de1078436be939e1deb74f8ec0&mc=true&node=se34.3.668\\_143&rgn=div8](http://www.ecfr.gov/cgi-bin/text-idx?SID=342e66de1078436be939e1deb74f8ec0&mc=true&node=se34.3.668_143&rgn=div8))

## 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). Requirements for distance education differ state by state. Syracuse University has registered, has obtained exemption for registration, or is in the process of registering or obtaining exemption for the programs available in those states as required under local laws. (States (see below) with an asterisk (\*) include specific statements required by those states

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

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, prior to filing a complaint with their state agency or agencies. See "Student Complaint Process" for additional information.

However, if the complaint is not resolved through these processes, a student may use the following list (current as of June 2015) to identify the office(s) to which complaints may be directed in the state in which the student resides.

If a complaint is not resolved satisfactorily within the University, then students may also file a complaint with the New York State Education Department (NYSED) which oversees higher education in New York state and/or with Middle States Commission on Higher Education, the University's accrediting agency. See "Student Complaint Process" for additional information.

#### Alabama

Alabama Commission on Higher Education  
PO Box 302000  
Montgomery, AL 36130-2000

## GRADUATE COURSE CATALOG

<http://www.ache.state.al.us/Content/Departments/NRI/federal-reg.pdf>

### Alaska

Alaska Commission on Postsecondary Education  
PO Box 110505  
Juneau, AK 99811-0505  
EED.ACPE-IA@alaska.gov  
[http://akadvantage.alaska.gov/EDUCATOR-SCHOOL/Postsecondary\\_Institutions/Consumer\\_Protection.aspx](http://akadvantage.alaska.gov/EDUCATOR-SCHOOL/Postsecondary_Institutions/Consumer_Protection.aspx)

### Arizona

Arizona State Board for Private Post-secondary Education  
1400 W. Washington Street, Room 260  
Phoenix, AZ 85007  
<https://ppse.az.gov/complaint>

### Arkansas

Arkansas Higher Education Coordinating Board  
Arkansas Department of Higher Education  
114 East Capitol Ave.  
Little Rock, AR 72201  
ADHE\_Info@adhe.edu  
<http://www.adhe.edu/SiteCollectionDocuments/AcademicAffairsDivision/Delores/APPENDIX%20J%20Student%20Grievance%20complaint%20process%20%20new.pdf>

### California

California Bureau of Private Postsecondary Education  
P.O. Box 980818  
W. Sacramento, CA 95798-0818  
bppe@dca.ca.gov  
[http://www.bppe.ca.gov/forms\\_pubs/complaint.pdf](http://www.bppe.ca.gov/forms_pubs/complaint.pdf)

Attorney General's Office, California Department of Justice, Attn: Public Inquiry Unit  
PO Box 9044255  
Sacramento, CA 94244-2550  
[http://ag.ca.gov/contact/complaint\\_form.php?cmplt=PL](http://ag.ca.gov/contact/complaint_form.php?cmplt=PL)

### Colorado

Colorado Department of Higher Education  
1560 Broadway, Suite 1600  
Denver, Colorado 80202  
<http://highered.colorado.gov/Academics/Complaints/default.html>

### Connecticut

Connecticut Department of Higher Education  
61 Woodland St.  
Hartford, CT, 06105-2326  
(860)947-1800  
info@ctdhe.org

### Delaware

Delaware Higher Education Office  
John G. Townsend Building, Suite 2  
Dover, DE 19901

dheo@doe.k12.de.us

Delaware Attorney General  
Consumer Protection Wilmington: 820 N. French Street 5th floor  
Wilmington, DE 19801  
consumer.protection@state.de.us

### District of Columbia

District of Columbia, Office of the State Superintendent of Education  
Higher Education Licensure Commission  
810 First Street, NE, 2nd Floor  
Washington, DC 20002  
<http://osse.dc.gov/service/education-licensure-commission-elc-public-complaints>

### Florida

Florida Commission for Independent Education  
325 W. Gaines Street, Suite 1414  
Tallahassee, FL 32399-0400  
<http://www.fldoe.org/policy/cie/file-a-complaint.stm>

### Georgia

Georgia Nonpublic Postsecondary Education Commission  
2082 E Exchange Pl. #220  
Tucker, GA 30084-5334  
<http://gnpec.org/consumer-resources/>

### Hawaii

Hawaii Postsecondary Education Authorization Program  
P.O. Box 541  
Honolulu, Hawaii 96809  
hpeap@dcca.hawaii.gov  
<http://cca.hawaii.gov/hpeap/student-complaint-process/>

### Idaho

Idaho State Board of Education  
Attn: State Coordinator for Private Colleges and Proprietary Schools  
650 West State Street  
P.O. Box 83720  
Boise, ID 83720-0037

### Illinois

Illinois Board of Higher Education  
431 East Adams, 2nd Floor  
Springfield, Illinois 62701-1404  
info@ibhe.org

Institutional Complaint Hotline: (217) 557-7359

### Indiana

\* Syracuse University is authorized by:

The Indiana Board for Proprietary Education  
101, W. Ohio St., Suite 670,  
Indianapolis, IN 46204-1984

Indiana Board for Proprietary Education  
Attn: Director of Regulatory Compliance

302 W Washington Street, Room E201  
Indianapolis, IN 46204  
<http://www.in.gov/che/2744.htm>

### Iowa

Iowa Student Aid Commission  
450 E. Grand Ave., 3rd Floor  
Des Moines, IA 50309  
info@iowacollegeaid.gov  
<https://www.iowacollegeaid.gov/content/constituent-request-review>

### Kansas

Kansas Board of Regents  
1000 SW Jackson Street, Suite 520  
Topeka, KS 66612-1368  
[http://www.kansasregents.org/state\\_university\\_student\\_complaint\\_form](http://www.kansasregents.org/state_university_student_complaint_form)

### Kentucky

Kentucky Council on Postsecondary Education  
1024 Capital Center Dr. #320  
Frankfort, KY 40601-7512  
Sarah.levy@ky.gov

Office of the Attorney General  
Capitol Suite 118, 700 Capitol Avenue  
Frankfort, KY 40601-3449  
consumer.protection@ag.ky.gov  
<http://ag.ky.gov/civil/consumerprotection/complaints/Pages/default.aspx>

### Louisiana

Louisiana Board of Regents  
Attn: Nancy Beall or Dr. Larry Trembly  
P.O. Box 3677  
Baton Rouge, LA 70821-3677  
<http://www.regentsfiles.org/assets/docs/ProprietarySchools/StudentComplaintProcedure.pdf>  
(225) 342-4253 (225) 342-9318

### Maine

Maine Department of Education  
Anita Bernhardt - Complaints  
23 State House Station  
Augusta, ME 04333-0023

Maine Attorney General  
Consumer Protection Division  
6 State House Station  
Augusta, ME 04333  
[http://www.maine.gov/ag/consumer/complaints/complaint\\_form.shtml](http://www.maine.gov/ag/consumer/complaints/complaint_form.shtml)

### Maryland

\* Syracuse University has registered certain of its distance education programs with the Maryland Higher Education Commission. Renewal, including additional programs, is in process.

Maryland Higher Education Commission  
6 North Liberty Street, 10th Floor  
Baltimore, MD 21201  
(410) 767-3388

## GRADUATE COURSE CATALOG

<http://www.mhec.state.md.us/higherEd/acadAff/MHECStudentComplaintProcess.pdf>

Office of the Attorney General, Consumer Protection Division  
200 St. Paul Place  
Baltimore, MD 21202  
Consumer Protection Hotline: (410) 528-8662  
consumer@oag.state.md.us  
<http://www.oag.state.md.us/Consumer/complaint.htm>

### Massachusetts

Massachusetts Board of Higher Education  
One Ashburton Place, Room 1401  
Boston, MA 02108  
<http://www.mass.edu/forstudents/complaints/complaintprocess.asp>

### Michigan

Michigan Department of Licensing and Regulatory Affairs  
Bureau of Commercial Services, Licensing Division  
Proprietary School Unit Staff  
201 N. Washington Sq.  
Lansing, MI 48913  
[http://www.michigan.gov/lara/0,4601,7-154-35299\\_61343\\_35395\\_35396---,00.html](http://www.michigan.gov/lara/0,4601,7-154-35299_61343_35395_35396---,00.html)

### Minnesota

\* Syracuse University is registered as a private institution with the Minnesota Office of Higher Education pursuant to sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions.

Minnesota Office of Higher Education  
1450 Energy Park Drive, Suite 350  
St. Paul, MN 55108-5227  
<http://www.ohe.state.mn.us/mPg.cfm?pageID=1078>

### Mississippi

Mississippi Commission on College Accreditation  
3825 Ridgewood Road  
Jackson, MS 39211-6453  
<http://www.mississippi.edu/mcca/downloads/studentcomplaintform.pdf>

Consumer Protection Division, Office of the Attorney General  
PO Box 22947  
Jackson, MS 39225-2947  
[http://www.ago.state.ms.us/index.php/contact\(email\)](http://www.ago.state.ms.us/index.php/contact(email))  
<http://www.ago.state.ms.us/forms/complaint-form/>

### Missouri

Missouri Department of Higher Education  
205 Jefferson Street, PO Box 1469  
Jefferson City, MO 65102-1469  
info@dhe.mo.gov  
Policy: <http://dhe.mo.gov/documents/>

POLICYONCOMPLAINTRESOLUTION-reviseddraft.pdf

### Montana

Montana Board of Regents  
Office of Commissioner of Higher Education,  
Montana University System  
2500 Broadway Street  
PO Box 203201  
Helena, MT 59620-3201

Montana Office of Consumer Protection  
2225 11th Avenue  
PO Box 200151  
Helena, MT 59620-0151  
contactocp@mt.gov  
<http://mus.edu/MUS-Statement-of-Complaint-Process.asp>

### Nebraska

Nebraska Coordinating Commission for Postsecondary Education  
PO Box 95005  
Lincoln, NE 68509-5005  
Nebraska Attorney General, Consumer Protection Division  
2115 State Capitol  
Lincoln, NE 68509  
[http://ago.nebraska.gov/forms/consumer\\_complaint](http://ago.nebraska.gov/forms/consumer_complaint)

Consumer Protection Hotline: (800) 727-6432

### Nevada

Nevada Commission on Post-secondary Education  
8778 S Maryland Parkway, Suite 115  
Las Vegas, NV 89123  
<http://www.cpe.state.nv.us/CPE%20Complaint%20Info.htm>

### New Hampshire

Patricia Edes  
New Hampshire Postsecondary Education Commission  
101 Pleasant Street  
Concord, NH 03301  
Patricia.Edes@doe.nh.gov  
603-271-0257

### New Jersey

New Jersey Higher Education  
PO Box 542  
Trenton, NJ 08625  
nj\_che@che.state.nj.us  
New Jersey Division of Consumer Affairs  
124 Halsey Street,  
New Jersey 07102  
<http://www.nj.gov/oag/ca/complaint/ocp.pdf>

### New Mexico

New Mexico Higher Education Department  
2048 Galisteo  
Santa Fe, NM 87505  
<http://hed.state.nm.us/uploads/files/PPS/>

Overview/Complaint%20Form%20FY2014.doc  
New York

New York Office of College and University Evaluation  
New York State Education Department  
5 North Mezzanine  
Albany, NY 12234  
ocueinfo@mail.nysed.gov  
<http://www.highered.nysed.gov/ocue/spr/COMPLAINTFORMINFO.html>

### North Carolina

Postsecondary Education Complaints  
c/o Assistant Director of Licensure and Workforce  
University of North Carolina General Administration  
910 Raleigh Road  
Chapel Hill, NC 27515  
919-962-4558  
studentcomplaint@northcarolina.edu

### North Dakota

North Dakota Department of Career and Technical Education  
State Capitol - 15th Floor  
600 E. Boulevard Ave. Dept. 270  
Bismarck, ND 58505-0610  
cte@nd.gov

### Ohio

Ohio Board of Regents  
25 South Front Street  
Columbus, OH 43215-4183  
Ohio Attorney General, Consumer Protection Section  
30 E. Broad St., 14th floor  
Columbus, OH 43215-3400  
<http://www.ohioattorneygeneral.gov/Individuals-and-Families/Consumers/File-A-Complaint.aspx>

### Oklahoma

Oklahoma State Regents for Higher Education  
655 Research Parkway, Suite 200  
Oklahoma City, OK 73104  
<http://www.okhighered.org/current-college-students/complaints.shtml>  
Oklahoma Office of the Attorney General,  
Consumer Protection Unit  
Attn: Investigative Analyst  
313 NE 21st Street  
Oklahoma City, OK 73105  
<http://www.oag.state.ok.us/oagweb.nsf/ccomp.html>

### Oregon

Oregon Higher Education Coordinating Commission  
Office of Degree Authorization  
775 Court Street NE, Salem, OR 97301  
Oregon Attorney General  
Financial Fraud/Consumer Protection Section

## GRADUATE COURSE CATALOG

1162 Court St. NE  
Salem, OR 97301-4096  
[http://www.doj.state.or.us/consumer/pdf/consumer\\_complaint.pdf](http://www.doj.state.or.us/consumer/pdf/consumer_complaint.pdf)

### Pennsylvania

Pennsylvania Department of Education  
333 Market Street  
Harrisburg, PA 17126-0333  
[http://www.education.state.pa.us/portal/server.pt/community/higher\\_education/8711/complaint\\_procedure/1004474](http://www.education.state.pa.us/portal/server.pt/community/higher_education/8711/complaint_procedure/1004474)

Office of Attorney General, Bureau of Consumer Protection  
14th Floor, Strawberry Square,  
Harrisburg, PA 17120  
[https://www.attorneygeneral.gov/Quick\\_Links/Pennsylvania\\_Attorney\\_General\\_Complaint\\_Forms/](https://www.attorneygeneral.gov/Quick_Links/Pennsylvania_Attorney_General_Complaint_Forms/)

### Rhode Island

Rhode Island Board of Governors for Higher Education  
Shepard Building, 80 Washington Street  
Providence, RI 02903

Rhode Island Department of Attorney General,  
Consumer Protection Unit  
150 South Main Street  
Providence, RI 02903  
<http://www.riag.ri.gov/home/ConsumerComplaintForm.pdf>

### South Carolina

South Carolina Commission on Higher Education  
1122 Lady St., Suite 300  
Columbia, SC 29201  
803-737-3918  
[http://www.che.sc.gov/CHE\\_Docs/AcademicAffairs/License/Complaint\\_procedures\\_and\\_form.pdf](http://www.che.sc.gov/CHE_Docs/AcademicAffairs/License/Complaint_procedures_and_form.pdf)

### South Dakota

South Dakota Secretary of State Jason M. Gant  
State Capitol, 500 East Capitol Avenue  
Pierre, SD 57501-5070  
[sdsos@state.sd.us](mailto:sdsos@state.sd.us)

South Dakota Office of Attorney General  
Division of Consumer Protection  
1302 E Hwy 14 Suite 3  
Pierre SD 57501-8053  
<http://atg.sd.gov/Consumers/HandlingComplaints/ConsumerComplaintForm.aspx>

### Tennessee

Tennessee Higher Education Commission  
404 James Robertson Parkway, Suite 1900  
Nashville, TN 37243  
<http://www.tn.gov/thec/Divisions/LRA/PostsecondaryAuth/Complaint%20Form.rtf>

### Texas

\* Syracuse University is not regulated in Texas

under Chapter 132 of the Texas Education Code.

Texas Higher Education Coordinating Board  
1200 E. Anderson Lane  
Austin, TX 78752  
<http://www.theccb.state.tx.us/index.cfm?objectid=051F93F5-03D4-9CCE-40FA9F46F2CD3C9D>

Title 19 of the Texas Administrative Code, Sections 1.110 1.120:  
[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.ViewTAC?tac\\_view=5&ti=19&pt=1&ch=1&sch=E&ri=Y](http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=5&ti=19&pt=1&ch=1&sch=E&ri=Y)

Office of the Attorney General, Consumer Protection Division  
PO Box 12548  
Austin, TX 78711-2548  
<https://www.oag.state.tx.us/consumer/complaintform.pdf>

### Utah

Utah Division of Consumer Protection  
160 East 300 South  
Salt Lake City, Utah 84111  
[consumerprotection@utah.gov](mailto:consumerprotection@utah.gov)  
<http://consumerprotection.utah.gov/complaints/index.htm>

### Vermont

Vermont Agency of Education, State Board of Education  
120 State Street  
Montpelier, VT 05620-2501  
[AQE.EdInfo@state.vt.us](mailto:AQE.EdInfo@state.vt.us)

Vermont Attorney General's Office  
109 State Street  
Montpelier, VT 05609-1001

### Virginia

State Council of Higher Education for Virginia  
101 N. 14TH St.  
James Monroe Building  
Richmond, VA 23219  
[communications@schev.edu](mailto:communications@schev.edu)  
<http://www.schev.edu/students/studentcomplaint.asp>

### Washington

Washington Student Achievement Council  
917 Lakeridge Way  
PO Box 43430  
Olympia, WA 98504-3430  
[dainfo@hecb.wa.gov](mailto:dainfo@hecb.wa.gov)  
<http://wsac.wa.gov/protecting-education-consumers>

### West Virginia

West Virginia Higher Education Policy Commission  
1018 Kanawha Blvd E., Suite 700  
Charleston, WV 25301-2800

West Virginia Office of the Attorney General,  
Consumer Protection Division

PO Box 1789  
Charleston, WV 25326-1789  
See also: [https://www.wvhepc.org/resources/Complaint\\_Process.pdf](https://www.wvhepc.org/resources/Complaint_Process.pdf)

### Wisconsin

Wisconsin Educational Approval Board  
201 W. Washington Avenue, 3rd Floor  
PO Box 8696  
Madison, WI 53708  
[eabmail@eab.wisconsin.gov](mailto:eabmail@eab.wisconsin.gov)  
<http://eab.state.wi.us/resources/complaint.asp>

### Wyoming

Wyoming Department of Education  
2300 Capitol Avenue, Hathaway Building, 2nd Floor  
Cheyenne, WY 82002-0050  
<http://edu.wyoming.gov/downloads/schools/student-complaint-process.pdf>

Attorney General's Office  
123 Capitol Building, 200 W. 24th Street  
Cheyenne, WY 82002

### Puerto Rico

Puerto Rico Council on Higher Education  
PO Box 1900  
San Juan, PR 00910-1900

Puerto Rico Department of Justice  
PO Box 9020192  
San Juan, Puerto Rico 00902-0192

## Nondiscrimination and EEO Policy

The University does not discriminate on any protected basis. This includes in admission, treatment, or access to its programs or activities or in employment in its programs and activities. The University prohibits harassment or discrimination related to any protected category. The protected bases include creed, ethnic or national origin, sex, gender, pregnancy, disability, marital status, political or social affiliation, age, race, color, veteran status, military status, religion, sexual orientation, domestic violence status, gender identity, gender expression or perceived gender. Any complaint of discrimination or harassment related to any of these protected bases should be reported to the University's Chief Equal Opportunity, Inclusion and Resolution Services Officer, Cynthia Maxwell Curtin. She is responsible for coordinating compliance efforts under the various laws including Titles VI, IX and Section 504\* of the Rehabilitation Act. She can be contacted at Equal Opportunity, Inclusion and Resolution Services, 005 Steele Hall, Syracuse University, Syracuse, NY 13244-1520; OR by email: [cmcurtin@syr.edu](mailto:cmcurtin@syr.edu); or by telephone: 315-443-4018.

Consistent with both federal and state laws, in general, no individual who is otherwise qualified shall be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity, solely by reason of having a disability. If a student needs accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 or TDD: (315) 443-1371 for an appointment. ODS is responsible for coordinating disability-related accommodations for students and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Additional information is available at <http://www.syr.edu/accessiblesu/index.html>.

Consistent with Title IX, the University's prohibits harassment, domestic or dating violence rape, sexual assault, domestic or dating violence, stalking, sexual coercion and non-contact sexual abuse such as voyeurism, and sexual exploitation or other forms of sexual violence or nonconsensual sexual activity. The University's standard for consent means informed, sober, mutual, and expressed by action and words. If you or someone you know has been harassed or assaulted, privileged and confidential advocacy and supportive services are available by calling the Sexual and Relationship Violence Response Team of licensed professionals at 315-443-4715, 200 Walnut Place. Additional information is available at <http://www.syr.edu/hcd/equal-opportunity.html> or by calling the Title IX hotline: 315-443-0211.

\*Title IX prohibits harassment or discrimination based on sex, gender, sexual orientation, gender expression, or gender identity and is enforced by the Office for Civil Rights [OCR@ed.gov; 800-421-3481]. Titles VI and VII prohibit harassment or discrimination based on race, national origin, or color. Sections 503 and 504 of the federal Rehabilitation Act and the Americans with Disabilities Act prohibit discrimination or harassment because of disability. In addition, New York law prohibits discrimination or harassment based on these and other protected categories.

## 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.

US DOE 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

1. 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.
2. 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.
3. 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 Notation

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 Communication	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



## GRADUATE COURSE CATALOG

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

#### 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, inclusive elementary special education: English education, science education, mathematics education, social studies education, Spanish education, art education, music education, physical education, and health and physical education: cumulative, content, or education course GPA of less than 3.0; Health and exercise science: cumulative or major course GPA below 3.0. Selected studies in education: cumulative GPA below 2.8. Guidelines are published in the <b>School of Education Undergraduate Handbook</b> .
Engineering and Computer Science	Term or cumulative GPA less than 2.0. Less than 2.0 Mathematics, Science and ECS course GPA (IST courses for SIS majors). Completion of less than 12 credits hours in one semester or 24 credits hours within any 12-month period. Failure to complete at least 6 credits and term GPA less than 1.5, will result in immediate suspension. Failure to complete calculus sequence by the end of the sophomore year (MAT 295, 296, & 397) (Does not apply to SIS majors). In addition to the above conditions, computer science students only: GPA of less than 2.667 in core courses. Failure to maintain satisfactory progress toward your degree.
Information Studies	Excessive missing grades, Incompletes, failure to make normal progress, or failure to complete prerequisites for the following semester's registration.  Must maintain IST GPA of 2.5 or higher to be certified for graduation.
Management	Semester GPA less than 2.0, earning fewer than 12 credit hours in two consecutive semesters, or failure to meet adequate progress standards.  Students can also be placed on college probation or academically suspended for taking a Leave of Absence after the drop deadline (resulting in all WD, I, or Failing grades).
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	B.P.S students: Semester or cumulative GPA less than 2.0; 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.

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:

### 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. Students are expected to arrive on campus in sufficient time to attend starting with the first meeting of all registered classes. Students who do not arrive and attend classes starting on the first day of their classes may be academically withdrawn by their college or departments as not making progress toward degree by failure to attend.

### 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

# GRADUATE COURSE CATALOG

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	000-009
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 department chair of student's program, 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

NYSSED 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. You must be admitted to the degree program in each of the awarding academic units.
2. In no instance shall course credit be counted more than twice in satisfaction of the requirements for multiple degrees and/or programs.
3. In order to earn two or more 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. Similarly, if the Master's curriculum is in the same field as the doctoral degree, the credits for the Master's degree may be counted in their entirety towards the doctoral degree.

### Exceptions

Two 12-credit C.A.S.s may not be awarded for less than 21 credits (i.e. only one three credit course can be shared between the two C.A.S.s).

Two 30-credit Master's degrees will not be awarded for fewer than 51 credits (i.e. up to nine credits can be shared between the two Master's degrees).

Three 30-credit Master's degrees will not be awarded for fewer than 75 credits.

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.

## GRADUATE COURSE CATALOG

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. Credit applied to an undergraduate major or minor may only be shared with one other major or minor. Credit may not be triple counted.

### 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 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. Graduate courses may be 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.

## GRADUATE COURSE CATALOG

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 retaken more than once, the lower grade may be flagged by petition.
Information Studies	Any course with a C- or lower may be retaken once.	The higher of the two grades is computed in the GPA.
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	Students may retake a course for grade improvement. Students should check with their academic advisor before retaking a course. Courses may be attempted only three times.	The highest grade for the course will be computed in the GPA.
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 must also petition to flag those courses so that they don't count toward your undergraduate record. This flagging must be accomplished prior to the certification of your undergraduate degree. These restricted graduate credits must be flagged before they can be applied to count toward the graduate degree requirements. 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.

## GRADUATE COURSE CATALOG

### 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

Arts and Sciences	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: <ul style="list-style-type: none"> <li>• Basic or college algebra is not accepted.</li> <li>• Remedial or developmental coursework is not accepted.</li> <li>• 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.]</li> <li>• 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</li> </ul>
Management	A minimum of 40 credit hours of required Management course work must be taken at SU.  Once a student matriculates into Management, only 12 additional credits can be taken outside Syracuse University (with prior approval from an academic advisor) and transferred back to count towards degree requirements.  All transfer coursework must be taken through a US domestic institution. Coursework taken through an International Institution will not be accepted after matriculation into the Whitman Program.
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 three credit hours earned in another college or university may be accepted to the organizational leadership credit certificate program requirements.

## GRADUATE COURSE CATALOG

### 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, Design or Transmedia required first-year studio courses
Art/Drawing	5	3	Studio Elective	Visual and Performing Arts	Visual and Performing Arts Does not count toward Art, Design or Transmedia required first-year studio courses
Art History	3	6	HOA 105, HOA 106	Arts and Sciences	
Biology	4	8	BIO 121, BIO 123, BIO 124	Arts and Sciences	
Chemistry	3 or 4	3	CHE 103	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.
	5	8	CHE 106/CHE 107 and CHE 116/CHE 117		
Chinese	3	4	CHI 102	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.
	4	4	CHI 201		

## GRADUATE COURSE CATALOG

Comparative Government and Politics	4	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	4	6	WRT 105 - WRT 205	Arts and Sciences	
English Literature and Composition	4	6	ETS 151 (or ETS 117 or ETS 118 or ETS 152 or ETS 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, ETS 118, ETS 152, or ETS 153. Three additional credits are awarded for WRT 105.
Environmental Science	3	3	EAR 200	Arts and Sciences	
European History	4	6	HST 111, HST 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 Geography	4	3	GEO 105 or GEO 171	Arts and Sciences	
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	JPS 102	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.
	4	4	JPS 201	Arts and Sciences	
Latin	3	4	LAT 102	Arts and Sciences	Public Communications must also place out of LAT 102 (with a score of 3) or LAT 201 (with a score of 4 or 5) on the placement examination.
	4	4	LAT 201	Arts and Sciences	
	5	7	LAT 201, LAT 320	Arts and Sciences	
Macroeconomics	4	3	ECN 102	Arts and Sciences	
Mathematics-Calculus AB	3	3	MAT 285	Arts and Sciences	Engineering and Computer Science Four credits awarded for MAT 295 only, pending results of the math placement examination.
	4	6 or 4	MAT 285 and MAT 286 or MAT 185	Arts and Sciences	
Mathematics-Calculus BC	4	8	MAT 295, MAT 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	3	MAT 285	Arts and Sciences	Arts and Sciences Exemption from Quantitative Skills and substitute for MAT 285 in natural sciences and mathematics.
	4	6 or 4	MAT 285 and MAT 286 or MAT 185	Arts and Sciences	
Mathematics Level II†	4	4	MAT 194	Arts and Sciences	
Microeconomics	4	3	ECN 101	Arts and Sciences	
Music Theory	3	3	HOM/MTC 125	Arts and Sciences	Awarded for non-music majors only.
Physics I	3	4	PHY 101	Arts and Sciences	
Physics II	3	4	PHY 102	Arts and Sciences	
Physics B	3	8	PHY 101, PHY 102	Arts and Sciences	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 PHY 212, PHY 222	Arts and Sciences	
Physics C (Mechanics)	3	4	PHY 101 or PHY 211, PHY 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	SPA 102	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.
	4	4	SPA 201	Arts and Sciences	
Statistics	3	3 or 4	MAT 121 or MAT 221 or STT 101	Arts and Sciences	Management Credit accepted as MAS 261.



## GRADUATE COURSE CATALOG

U.S. Government and Politics	4	3	PSC 121	Arts and Sciences
U.S. History	4	6	HST 101, HST 102	Arts and Sciences
World History	4	6	HST 121, HST 122	Arts and Sciences

### 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, CHE 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, HST 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, HST 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 exams or additional requirements.  
D. No credit will be awarded for IB Standard Level

### 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. Curricular requirements for each degree and certificate program are found in the Academic Offerings of each School and

College. Students must follow the curriculum requirements that are in place at the time of their admission to that program. This may be the original matriculation term at Syracuse University or the term in which a student is accepted to a new degree program.

### 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.	

## GRADUATE COURSE CATALOG

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 creative work, or the development of advanced professional skills.	A doctoral degree represents completion of three academic years of graduate-level study or an equivalent that can be shown to accomplish the 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

## GRADUATE COURSE CATALOG

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.

## GRADUATE COURSE CATALOG

### 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. Completion of some dual programs, particularly those with more than two majors, may require additional credit hours.	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 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. 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.

## GRADUATE COURSE CATALOG

Combined Undergraduate Degree Program			
<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. Students must meet admissions requirements of both degree programs. For programs involving two schools/colleges, students must fulfill degree requirements in both schools/colleges. 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. 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. 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. 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. There is one formally established undergraduate combined program: 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. 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.

**\*\*Arts and Sciences/Education dual program is intended for students pursuing teacher certification. Those wishing to pursue two majors not associated with teaching may continue as single degree program with double major.**

### 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

## GRADUATE COURSE CATALOG

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>		
Students must fully meet the requirements for both degrees.	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.	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.  Students who wish to pursue other combinations of undergraduate and graduate degree programs must obtain the prior written permission of both deans.
<b>Undergraduate and Law Graduate Degree Program</b>		
	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.	
<b>Other Simultaneous Pursuit of Undergraduate and Graduate Degrees</b>		
	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.	

## GRADUATE COURSE CATALOG

### 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.

Deadlines are established for each degree award date for fulfilling degree requirements. At that point, the graduating class is closed. Students who do not resolve any outstanding issues by the deadline will have their degree awarded for the next degree date after they satisfy all remaining issues. Degrees are not awarded retroactively.

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 or the Academic Integrity Office. Diplomas are issued once. Diplomas can be reissued if lost or damaged. Replacement diplomas are issued with current signatures.

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, 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, and the Dean(s) of the school(s)/college(s) that award the C.A.S.

**Undergraduate Certificates:**

- display the certificate title;
- list the area of study; and
- are signed by the Chancellor and the Dean of the school/college that awards the certificate.

## 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- 1,2	.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	Withdraw	Not counted	Indicates that a student withdrew from the course, after the academic drop deadline.

## GRADUATE COURSE CATALOG

### 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.

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.

### School/College Rules - Undergraduate Students

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.
Information Studies	A pass/fail course may not be used to satisfy any requirement. Pass/fail courses can be used only as free electives.
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.  Matriculated Fall 2015 or later: 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 liberal arts elective only.
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, and are included in the total

credits earned, but, do not count toward credit hours earned for the degree program except by petition (see Credit, Calculation of credit hours, Undergraduate Students).

#### WD (Withdraw)

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.

## 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:
  1. The panel shall have a quorum of at least three.
  2. All voting members of the panel shall be tenured faculty.
  3. No member of the panel shall hear a case who has been involved in a previous stage of the appeal.
  4. 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.
  5. 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.
  6. 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.

## GRADUATE COURSE CATALOG

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 TABLE I and TABLE 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 2.000 in order to be awarded an SU degree. Graduate students must earn a minimum average of 3.000 for work comprising the program for the degree or certificate and a minimum cumulative GPA of 2.800.

### 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. Requests for internal transfer requests must be received before the financial drop deadline of the current term. Any requests received after that date will take effect the next semester. Schools and Colleges still have the ability to set their own internal deadlines for processing and approval in order to meet this deadline. Until an IUT is approved, students 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, English education, mathematics education, science education, social studies education, Spanish education, art education, music education, physical education, and health and physical education; 2.8 for selected studies in education. Students who meet department criteria will be admitted on a space-available basis. An interview with an assistant director of academic advising may be required, and all applications are held until the end of the semester.
Engineering and Computer Science	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 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	To be considered eligible for transfer, students must have completed at least 30 credits at Syracuse University (two academic semesters), including two of the following or their equivalents: MAT 221, MAT 284, and ECN 203. These students are admitted as space becomes available and considered based on the following criteria: cumulative GPA, rigor of academic coursework taken at SU, engagement on and off campus, and an optional professor recommendation. 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. All application requirements must be completed by the last day of the semester of their freshmen year, no summer coursework will be considered. Decisions will be made by a committee over the summer and communicated to all applicants.
Public Communications	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.

## GRADUATE COURSE CATALOG

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, design and/transmedia; audition for drama and music; essay for Bandier program; questionnaire for communication and rhetorical studies (CRS). Application deadlines end of the semester for all programs except CRS. For CRS Oct. 15 only for spring admission and Mar. 15 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>

## GRADUATE COURSE CATALOG

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 classes.	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.
- To be eligible for financial aid you must meet Satisfactory Academic Progress standards. <http://www.syr.edu/financialaid/policies/index.html>
- 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.

Readmission is effective the first day of the approved semester.

After your readmit has been approved and processed, you may register for the readmit 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 readmit 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.

## GRADUATE COURSE CATALOG

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. Public Communications majors are not available to singly enrolled students in other schools/colleges.

## 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	Must be declared by the end of the Sophomore year or 4 <sup>th</sup> semester of study. All 18 credits must be letter-graded coursework taken at Syracuse University.

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

## GRADUATE COURSE CATALOG

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. The course counts toward overall credit and GPA calculations

on the transcript, unless flagged to remove it from calculation (see Flagging section, Graduate Students). 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 and 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 programs in order to be granted a Syracuse University degree.

#### 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



## GRADUATE COURSE CATALOG

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)

## GRADUATE COURSE CATALOG

### ACADEMIC OFFERINGS

#### Undergraduate Offerings

OFFERING	MINIMUM CREDITS REQUIRED	HEGIS
Accounting		0502
B.S.	122	
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
B.S./M.B.A.	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
B.A./M.S.	150	
Animation (Minor)		
Anthropology		2202
B.A.	120	
Anthropology (Minor)		
Anthropology (Tch Prep)/ Social Studies Ed: Prep 7-12 (5 Yr) Comined U/G)		2202, 2201
B.A./M.S.	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
B.S./M.B.A.	150	
Biology		0401
B.A.	120	
B.S.	120	
Biology (Minor)		
Biology (Tchr Prep)/Science Ed (Biology):Prep 7-12 (5Yr) (Combined U/G)		0401
B.A./M.S.	150	
B.S./M.S.	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
B.S./M.B.A.	150	
Chemistry		1905
B.A.	120	

## GRADUATE COURSE CATALOG

B.S.	120	
Chemistry (Minor)		
Chemistry (Tchr Prep)/Science Ed (Chem): Prep 7-12 (5 Yr) (Combined U/G)		1905, 1905
B.A./M.S.	150	
B.S./M.S.	150	
Child and Family Studies		1305
B.S.	124	
Child and Family Studies (Minor)		
Chinese Language (Minor)		
Chinese Studies (Minor)		
Citizenship & Civic Engagement		2299
Civil Engineering		0908
B.S.	127-128	
Civil Engineering/Business Administration (Combined U/G)		0908, 0506
B.S./M.B.A.	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.	121	
Communications Photography (Minor)		
Computer Art and Animation		1009
B.F.A.	129	
Computer Engineering		0999
B.S.	130	
Computer Engineering (Combined UG)		0999
B.S./M.S.	156	
Computer Engineering (Minor)		
Computer Engineering/Business Administration (Combined U/G)		0999, 0506

B.S./M.B.A.	150	
Computer Gaming (Minor)		
Computer Science		0701
B.S.	123	
Computer Science (Combined UG)		0999
B.S./M.S.	147	
Computer Science (Minor)		
Computer Science/Business Administration (Combined U/G)		0701, 0506
B.S./M.B.A.	150	
Computer Science/Computer Science (Combined U/G)		0701, 0701
B.S./M.S.	150	
Construction Management - ESF (Minor)		
Creative Leadership		0506
B.P.S.	120	
Certificate	15	5004
Disability Studies (Minor)		
Drama		1007
B.S.	120	
Drama (Minor)		
Earth Sciences		1917
B.A.	120	
B.S.	120	
Earth Sciences (Minor)		
Earth Sciences (Tchr Prep)/Science Ed (Earth Sci): Prep 7-12 (5 Yr) (Combined U/G)		1917, 1917
B.A./M.S.	150	
B.S./M.S.	150	
Economics		2204
B.A.	120	
B.S.	120	
Economics (Minor)		
Economics (Tchr Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2204, 2201
B.A./M.S.	150	
B.S./M.S.	150	
Education Studies (Minor)		
Electrical Engineering		0909
B.S.	132	
Electrical Engineering (Combined U/G)		0909
B.S./M.S.	156	
Electrical Engineering (Minor)		

## GRADUATE COURSE CATALOG

Electrical Engineering/Business Administration (Combined U/G)		0909, 0506
B.S./M.B.A	150	
Energy and Its Impacts (Integrated Learning Major)		1901.00
B.A.	120	
B.S.	120	
Energy Systems (Minor)		
Engineering & Computer Science Management (Minor)		
English and Textual Studies		1502
B.A.	120	
English and Textual Studies (Minor)		
English and Textual Studies (Tch Prep)/English Ed: Prep 7-12 (5 Yr) (Combined U/G)		1502, 1501
B.A./M.S.	150	
English Education 7-12		1501.01
B.A.	123	
English Language Institute (Other)		
Entrepreneurship & Emerging Enterprises (Minor)		
Entrepreneurship & Emerging Enterprises		0506
B.S.	122	
Environment and Society (Minor)		
Environment and Interior Design		0203.00
B.F.A.	120	
Environmental Engineering		0922
B.S.	127-128	
Environmental Engineering/Business Administration (Combined U/G)		0922, 0506
B.S./M.B.A.	150	
Ethics (Integrated Learning Major)		1599.10
European Literature		1101
B.A.	120	
Exercise Science (Minor)		
Exercise Science (Dance) (Minor)		
Fashion Design		1009
B.F.A.	121	
Film		1010
B.F.A.	129	
Finance		0504
B.S.	122	
Finance (Minor)		
Fine Arts		1001
B.A.	120	
Fine Arts (Minor)		

Food Studies		2299
B.S.	120	
Food Studies (Minor)		
Forensic Science (Minor)		
Forensic Science (Integrated Learning Major)		199.20
French and Francophone Studies		1102
B.A.	120	
French and Francophone Studies (Minor)		
General Accounting		0502
B.S.	122	
General Studies in Management		0506
B.S.	122	
Geography		2206
B.A.	120	
Geography (Minor)		
Geography (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2206, 2206
B.A./M.S.	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
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
B.A./M.S.	150	
History of Architecture		1003
B.A.	120	
History of Architecture (Minor)		
History of Art		1003
B.F.A.	126	
iLEARN: The Center for Innovative Learning (Other)		

## GRADUATE COURSE CATALOG

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.	150	
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 (5 yr.) (Combined U/G)		2210, 2201
B.A./M.S.	150	
Iroquois Linguistics for Language Learners (Certificate)		1505.00
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		
B.P.S.	120	
Certificate	15	0799
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
B.A./M.S.	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.S.	122	
Management Studies (Minor)		
Marketing (Minor)		
Marketing Management		0509
B.S.	122	
Mary Ann Shaw Center for Public & Community Services (Other)		
		1701
B.A.	120	
B.S.	120	
Mathematics (Minor)		
Mathematics (Tch Prep)/Mathematics Ed: Prep 7-12 (5 Yr) (Combined U/G)		1701, 1701
B.A./M.S.	150	
B.S./M.S.	150	
Mathematics Education 7-12		1701.01
B.A.	124	
B.S.	123	
Mechanical Engineering	128	
Mechanical Engineering/Business Administration (Combined U/G)		0910, 0506
B.S./M.B.A.	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 & Contemplative Studies (Minor)		

## GRADUATE COURSE CATALOG

Modern Foreign Language		1101
B.A.	120	
Modern Jewish Studies		0399.00
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
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
B.A./M.S.	150	
B.S./M.S.	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
B.A./M.S.	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
B.A./M.S.	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		1214
B.S.	123	
Public Health (Minor)		
Public Relations		0604
B.S.	122	
Real Estate		0511
B.S.	122	
Real Estate (Minor)		

## GRADUATE COURSE CATALOG

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)		
Renee Crown University Honors Program (Other)		
Renewable Energy - ESF (Minor)		
Reserve Officer Training Corps (ROTC) (Other)		
Retail Management		0506
B.S.	122	
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.S.	120	
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 Secondary (Tch Prep-5yr)		2208
B.A./M.S.	150	
Sound Recording Technology		1099.00
B.Mus.	129	
South Asian Studies (Minor)		
Spanish Education (dual)		1105.00
B.A.	124	
Spanish Language, Literature and Culture		1105.00
B.A.	120	
Spanish (Minor)		
Special Studies in Art		1001.00
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	
B.A.	123	
B.S.	123	
Supply Chain Management		0506.00
B.S.	122	
Sustainable Construction Management (Minor)		
Systems and Information Science		0702.00
B.S.	120	
Television, Radio and Film		0603.00
B.S.	122	
Theater Design and Technology		1007.00
B.F.A.	130	
Visual Culture (Minor)		
Voice		1004.00

## GRADUATE COURSE CATALOG

B.Mus.	126	
Wind Instruments		1004.00
B.Mus.	126	
Women's and Gender Studies		4903.00
B.A.	120	
Women's and Gender Studies (Minor)		
Women's and Gender Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		4903, 2201
B.A./M.S.	150	
Writing (Minor)		
Writing and Rhetoric		1507
B.A.	120	

### Graduate Offerings

OFFERING	MINIMUM CREDITS REQUIRED	HEGIS
Accounting		0502
M.S.	30	
Addiction Studies		2201
C.A.S.	24	
M.A.	36	
Advertising		0604
M.A.	36	
Aerospace Engineering/Business Administration (Combined U/G)		0902, 0506
B.S./M.B.A.	150	
African American Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2211, 2201
B.A./M.S.	150	
Anthropology		2202
M.A.	30	
Ph.D.	72	
Anthropology (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2202, 2201
B.A./M.S.	150	
Applied Statistics		1702
M.S.	33	
Architecture - M.Arch		0202
M. Arch.	110	
Architecture		0202
M.S.	30	
Art Education: Preparation		0831
M.S.	45	

Art Education: Professional Certification		0831
M.S.	30	
Art History		1001
M.A.	30	
Art Photography		1011
M.F.A.	60	
Art Video		1010
M.F.A.	60	
Arts Journalism		0602
M.A.	36	
Arts Leadership Administration		1099
C.A.S.	15	
M.A.	39	
Audio Arts		0599
M.A.	36	
Audiology		1220
Au.D.	92	
AuD/Ph.D.	110	
Ph.D.	82	
Bioengineering		0905
M.S.	30	
Ph.D.	42	
Bioengineering (5 Yr) (Combined U/G)		0905/0905
B.S./M.S.	154	
Bioengineering/Business Administration (Combined U/G)		0905, 0506
B.S./M.B.A.	150	
Biology		0401
M.S.	30	
Ph.D.	48	
Biology (Tchr Prep)/Science Ed (Biology): Prep 7-12 (5 Yr) (Combined U/G)		0401
B.A./M.S.	150	
B.S./M.S.	150	
Biomedical Forensic Sciences		1999
M.S.	36	
Broadcast and Digital Journalism		0603
M.S.	40	
Business Administration		0506
M.B.A.	54	
Ph.D.	72	
Business Administration (iMBA)		0506
M.B.A.	54	
Ceramics		1009



## GRADUATE COURSE CATALOG

M.F.A.	60	
Chemical Engineering		0906
M.S.	30	
Ph.D.	42	
Chemical Engineering (5 Yr) (Combined U/G)		0906/0906
B.S./M.S.	152	
Chemical Engineering/Business Administration (Combined U/G)		0906, 0506
B.S./M.B.A.	150	
Chemistry		1905
M.S.	30	
Ph.D.	48	
Chemistry (Tchr Prep)/Science Ed (Chem): Prep 7-12 (5 Yr) (Combined U/G)		1905, 1905
B.A./M.S.	150	
B.S./M.S.	150	
Child and Family Studies		1305
M.A.	30	
M.S.	30	
Ph.D.	72	
Civil Engineering		0908
M.S.	30	
Ph.D.	48	
Civil Engineering/Business Administration (Combined U/G)		0908, 0506
B.S./M.B.A.	150	
Civil Society Organizations		2102
C.A.S.	15	
Clinical Mental Health Counseling		2104
M.S.	60	
Clinical Psychology		2003
Ph.D.	90	
College Science Teaching		4999
Ph.D.	90	
Communication and Rhetorical Studies		1506
M.A.	33	
M.S.	33	
Communications		
M.S.	33	
Communications Management		0599
M.S.	36	
Composition and Cultural Rhetoric		1599
Ph.D.	75	
Computational Journalism		0799

M.S.	36-37	
Computational Linguistics		0799
M.S.	36	
Computer and Information Sci. & Engineering		0799
Ph.D.	52	
Computer Art		1009
M.F.A.	60	
Computer Engineering		0999
C.E.	60	
M.S.	30	
Computer Engineering (Combined UG)		0999
B.S./M.S.	156	
Computer Engineering/Business Administration (Combined U/G)		0999, 0506
B.S./M.B.A.	150	
Computer Science		0701
M.S.	30	
Computer Science (Combined UG)		0999
B.S./M.S.	147	
Computer Science/Business Administration (Combined U/G)		0701, 0506
B.S./M.B.A.	150	
Computer Science/Computer Science (Combined U/G)		0701, 0701
B.S./M.S.	150	
Conducting		1004
M. Mus.	35	
Conflict Resolution		2199
C.A.S.	12	
Counseling and Counselor Education		0806
Ph.D.	90	
Creative Writing		1507
M.F.A.	48	
Cultural Foundations of Education		0821
C.A.S.	60	
M.S.	30	
Ph.D.	90	
Cultural Heritage Preservation		1099
C.A.S.	15	
Cybersecurity		0701
M.S.	30	
C.A.S.	12	
Data Science		0799
C.A.S.	15	

## GRADUATE COURSE CATALOG

Defense Comptrollership Program (Other)		
Digital Libraries		1499
C.A.S.	18	
Disability Studies		2199
C.A.S.	15	
Documentary Film and History		0605
M.A.	38	
Drama		1007
M.A.	30	
M.F.A.	30	
Early Childhood Special Education		0808
M.S.	36	
Earth Sciences		1917
M.A.	30	
M.S.	30	
Ph.D.	72	
Earth Sciences (Tchr Prep)/Science Ed (Earth Sci): Prep 7-12 (5 Yr) (Combined U/G)		1917, 1917
B.A./M.S.	150	
B.S./M.S.	150	
Econometrics		0503
C.A.S.	15	
Economics		2204
M.A.	30	
Ph.D.	72	
Economics (Tchr Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2204, 2201
B.A./M.S.	150	
B.S./M.S.	150	
Economics/IR Joint Master's		2204, 2210
M.A., M.A.	58	
Educational Leadership		0827
C.A.S.	60	
Ed.D.	90	
M.S.	30	
Educational Technology		0899
C.A.S.	15	
E-Government Management and Leadership		0599
C.A.S.	12	
Electrical & Computer Engineering		0999
Ph.D.	52	
Electrical Engineering		0909
E.E.	60	

M.S.	30	
Electrical Engineering (Combined U/G)		0909
B.S./M.S.	156	
Electrical Engineering/Business Administration (Combined U/G)		0909, 0506
B.S./M.B.A.	150	
Engineering Management		0913
M.S.	36	
English		1501
M.A.	30	
Ph.D.	72	
English and Textual Studies (Tch Prep)/English Ed: Prep 7-12 (5 Yr) (Combined U/G)		1502, 1501
B.A./M.S.	150	
English Education: Preparation 7-12		1501.01
M.S.	40	
Entrepreneurship & Emerging Enterprises		0509
M.S.	30	
Environmental Engineering		0922
M.S.	30	
Environmental Engineering Science		0922
M.S.	30	
Environmental Engineering/Business Administration (Combined U/G)		0922, 0506
B.S./M.B.A.	150	
Environmental Health		0922.00
C.A.S.	12	
European Union & Contemporary Europe		0310
C.A.S.	12	
Executive Master in International Relations		2210
M.A.	30	
Executive Master of Public Administration		2102
M.P.A.	30	
Exercise Science		1299.30
M.S.	36	
Experimental Psychology		2002
Ph.D.	90	
Film		1010
M.F.A.	60	
Finance		0504
M.S.	30	
Firearm and Toolmark Examination		1999.20

## GRADUATE COURSE CATALOG

C.A.S.	12	
Food Studies		2299.00
M.S.	36	
Forensic Science		1999
M.S.	34	
French and Francophone Studies		1102
M.A.	30	
Geography		2206
M.A.	30	
Ph.D.	72	
Geography (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2206, 2206
B.A./M.S.	150	
Global Enterprise Technology		0799
C.A.S.	15	
Global Health		1214
C.A.S.	19	
M.S.	36	
Health Services Management and Policy		1202
C.A.S.	12	
Higher/Postsecondary Education		0805
M.S.	36	
Ph.D.	90	
History		2205
M.A.	30	
Ph.D.	72	
History (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2205, 2201
B.A./M.S.	150	
Illustration		1009
M.F.A.	60	
Inclusive Special Educ. Severe/ Multiple Disabilities		0808
M.S.	31	
Information Innovation		0799
D.P.S.	51	
M.S.	30	
Information Science and Technology		0702
Ph.D.	78	
Information Security Management		0799
C.A.S.	15	
Information Systems and Telecommunications Management		0799
C.A.S.	15	

Information, Technology, and Policy, and Mgt.		0799
C.A.S.	12	
Instructional Design Foundations		0899
C.A.S.	12	
Instructional Design, Development, and Evaluation (IDD&E)		0899
C.A.S.	60	
M.S.	30	
Ph.D.	90	
Instructional Technology		0899
M.S.	37	
Intercollegiate Advising & Support		
C.A.S.	15	
International Relations		2210
M.A.	40	
International Relations (Tch Prep-5Yr.)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2210, 2201
B.A./M.S.	150	
International Relations/Public Administration Joint Program		2210, 2102
M.A.	58	
M.P.A.	58	
Jewelry and Metalsmithing		1009
M.F.A.	60	
Language Teaching: TESOL/TLOTE		1508
C.A.S.	12	
Latin American/Caribbean Studies		0308
C.A.S.	12	
Latino-Latin American Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		0308, 2201
B.A./M.S.	150	
Law		1401
J.D.	87	
Law LLM		1401
LLM	24	
Law/Advertising		1401, 0604
J.D./M.A.		
Law/Arts Journalism		1401, 0602
J.D./M.A.		
Law/Computer Science		1401/0701
J.D./M.S.		
Law/Cultural Foundations of Education		1401, 0821
J.D./M.S.		
Law/Documentary Film & History		1401, 0605

## GRADUATE COURSE CATALOG

J.D./M.A.		
Law/Forensic Science		1401, 1999.20
J.D./M.A.		
Law/History		1401, 2205
J.D./M.A.		
Law/International Relations		1401, 2201
J.D./M.A.		
Law/Library Science		1401, 1601
J.D./M.S.		
Law/Magazine, Newspaper, & Online Journalism		1401, 0602
J.D./M.A.		
Law/Management		1401/0599
J.D./M.B.A.		
Law/Media Management		1401, 0605
J.D./M.S.		
Law/Media Studies		1401, 0605
J.D./M.A.		
Law/Philosophy		1401, 1509
J.D./Ph.D.		
Law/Photography		1401, 1011
J.D./M.S.		
Law/Political Science		1401, 2207
J.D./M.A.		
J.D./Ph.D.		
Law/Public Administration		1401, 2101
J.D./M.P.A.		
Law/Public Relations		1401, 0604
J.D./M.S.		
Law/Social Work (Licensed Clinical)		1401, 2104.10
LCSW/JD		
Law/Social Work (Licensed Master)		1401, 2104.10
Law/Television, Radio, & Film		1401, 0603
J.D./M.A.		
Leadership in International and Non-Governmental Organizations		2102
C.A.S.	12	
Library and Information Science		1601
M.S.	42	
Library and Information Science: School Media		0899.01
M.S.	37	
Linguistic Studies		1505
M.A.	30	

Literacy Education		0830
M.S.	36	
Literacy Education Birth - Grade 6		0830
M.S.	36	
Literacy Education Birth - Grade 12		
M.S.	30	
Literacy Education Grades 5-12		0830
M.S.	36	
Magazine, Newspaper, and Online Journalism		0602
M.A.	36	
Marriage and Family Therapy		1305
M.A.	60	
Ph.D.	90	
Mass Communications		0605
Ph.D.	90	
Mathematics		1701
M.S.	30	
Ph.D.	90	
Mathematics (Tch Prep)/ Mathematics Ed: Prep 7-12 (5 Yr.) (Combined U/G)		1701, 1701
B.A./M.S.	150	
B.S./M.S.	150	
Mathematics Education		0833
Ph.D.	90	
Mathematics Education Preparation 7-12		1701.01
M.S.	43	
Mechanical and Aerospace Engineering		0910
M.S.	30	
Ph.D.	48	
Mechanical Engineering/Business Administration (Combined U/G)		0910/0506
B.S./M.B.A.	150	
Media and Education		0601
M.A.	36	
C.A.S.	15	
Media Studies		0605
M.A.	36	
Medicolegal Death Investigation		1999
C.A.S.	12	
M.S.	36	
Microwave Engineering		0909
C.A.S.	12	
Middle Eastern Affairs		0309

## GRADUATE COURSE CATALOG

C.A.S.	12	
Museum Studies		1099
M.A.	33	
Music Composition		1004.10
M. Mus.	35	
Music Education Professional Certification		0832
M. Mus.	33	
M.S.	33	
Music Education: Preparation		0832
M.S.	47	
National Security and Counterterrorism Law		1499.00
C.A.S.		
New Media Management		0605
M.S.	36	
Nutrition Science		1306
M.A.	36	
M.S.	30	
Ph.D.	78	
Organ		1004
M. Mus.	32	
Painting		1002
M.F.A.	60	
Pan African Studies		0305
M.A.	30	
Percussion		1004
M. Mus.	35	
Philosophy		1509
M.A.	30	
Ph.D.	63	
Photography		1011
M.S.	30	
Physics		1902
M.S.	30	
Ph.D.	48	
Physics (Tchr Prep)/Science Ed (Physics): Prep 7-12 (5 Yr) (Combined U/G)		1902
B.A./M.S.	150	
B.S./M.S.	150	
Piano		1004
M. Mus.	36	
Policy Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2102, 2201
B.A./M.S.	150	

Political Science		2207
M.A.	30	
Ph.D.	72	
Political Science (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2207, 2201
B.A./M.S.	150	
Post-Conflict Reconstruction		2299
C.A.S.	12	
Printmaking		1009
M.F.A.	60	
Professional Accounting (distance)		0502
M.S.	30	
Professional Practice in Educational Technology		0899
C.A.S.	24	
Public Administration		2102
C.A.S.	12	
M.P.A.	40	
Ph.D.	81	
Public Diplomacy – Dual Degree Int'l Rel., Public Rel.		2210, 0604
M.A., M.S.	58	
Public Health		1214
M.P.H.	42	
Public Health (CNYMPH) (Other)		1214
M.P.H.	42	
Public Infrastructure Management and Leadership		2102
C.A.S.	15	
Public Management and Policy		2101
C.A.S.	12	
Public Relations		0604
M.S.	36	
Religion		1510
M.A.	30	
Ph.D.	78	
School Counseling		0826.01
M.S.	48	
School Counseling-P/P		0826.01
C.A.S.	60	
School District Business Leader (Professional Certification)		0827
C.A.S.	60	
School Library Media		0899.01
C.A.S.	21	
School Psychology		0826.02

## GRADUATE COURSE CATALOG

Ph.D.	90	
Science Education		0834
C.A.S.	60	
Ph.D.	90	
Science/Biology Education Preparation 7-12		0401.01
M.S.	40	
Science/Chemistry Education Preparation 7-12		1905.01
M.S.	40	
Science/Earth Sciences Education Preparation 7-12		1917
M.S.	40	
Science/Physics Education Preparation 7-12		1902
M.S.	40	
Sculpture		1002
M.F.A.	60	
Security Studies		2102
C.A.S.	12	
Social Psychology		2005
Ph.D.	90	
Social Science		2201
Ph.D.	72	
Social Science (distance)		2201
M.S.	30	
Social Studies Education: Preparation 7-12		2201.01
M.S.	40	
Social Work		2104
M.S.W.	60	
Social Work Advanced Standing Program		2104
M.S.W.	36	
Social Work and Marriage and Family Therapy Dual Degree		1305, 2104
M.A., M.S.W.	96	
Sociology		2208
Ph.D.	72	
Sociology (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		2208, 2201
B.A./M.S.	150	
South Asia Studies		0303
C.A.S.	12	
Spanish Language, Literature, and Culture		1105
M.A.	33	
Special Education		0808

Ph.D.	90	
Speech Language Pathology		1220, 0815
M.S.	42	
Sport Venue & Event Management		0599
M.S.	36	
Strings		1004
M. Mus.	36	
Structural Biology, Biochemistry, and Biophysics		0415
Ph.D.	42	
Student Affairs Counseling		0826
M.S.	48	
Studio Arts		1002.00
M.F.A.	60	
Supply Chain Management		0506
M.S.	30	
Sustainable Enterprise		0420
C.A.S.	15	
Systems Assurance		0799
C.A.S.	21	
Teaching and Curriculum		0829
M.S.	30	
Ph.D.	90	
Teaching English Language Learners (TELL)		1508
M.S. (First Certification)	40	
M.S.	30	
Telecommunications and Network Management		0799
M.S.	36	
Television-Radio-Film		0603
M.A.	36	
Trauma-Informed Practice		2104
C.A.S.	15	
Voice		1004
M. Mus.	36	
Voice Pedagogy		1001
M. Mus.	32	
Wind Instruments		1004
M. Mus.	35	
Women's and Gender Studies		4902
C.A.S.	12	
Women's and Gender Studies (Tch Prep)/Social Studies Ed: Prep 7-12 (5 Yr) (Combined U/G)		4903, 2201
B.A./M.S.	150	

### Other Programs

## English Language Institute

Geraldine de Berly, Director  
700 University Avenue, 315-443-8571  
FAX: 315-443-1530  
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 (e.g., architecture, business, engineering).

Completion of the Level 4 (high intermediate) course will waive the University TOEFL requirement for most undergraduate programs and some graduate programs.

For further information, contact the English Language Institute, 700 University Avenue, Syracuse NY 13244-2530, U.S.A.

## iLEARN

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

## 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.

# 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):

1. An introductory honors seminar (HNR 100 for first-year students; HNR 210, HNR 220, or HNR 230 for students entering after their first year).
2. 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.
3. 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/shorttermpprograms/>);
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/>.

## 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



## GRADUATE COURSE CATALOG

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  
MSL 301/371,302/372/401,402  
PED 200

## 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.

## 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 48 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.

SU Abroad maintains centers in Santiago, Chile; Hong Kong and Beijing, China; London, England; Strasbourg, France; Florence, Italy; Madrid, Spain, and Istanbul, Turkey.

Our World Partners programs provide opportunities in many additional locations, including Australia, the Czech Republic, Ecuador, Germany, India, Ireland, Israel, Japan, Korea, Russia, South Africa, Turkey, and more. Courses award SU credit, and your financial aid travels with you. Study abroad grants and other scholarships are available.

## Undergraduate Research

### Undergraduate Research Program

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

## Defense Comptrollership Program

### Contact

Irma P. Finocchiaro, Director, Executive/Defense Programs, 420 Whitman School of Management, 315-443-2898, [ifinocch@syr.edu](mailto:ifinocch@syr.edu)

### Program Description

The Defense Comptrollership Program (DCP) is a unique cooperative endeavor between the Department of Defense/ Department of Homeland Security and Syracuse University. Jointly established in 1952 by the Whitman School of Management and the Maxwell School of Citizenship and Public Affairs, DCP was designed to provide an academic foundation of both business and government theory. It is a dual degree M.B.A./Executive Master of Public Administration (Executive M.P.A.). As the practice of these concepts and theories will be utilized in the dynamic environment of national defense, emphasis is placed upon the implications for comptrollership. The DCP participants pursue the traditional M.B.A. and Executive M.P.A. curriculum along with the other graduate students during the fall and spring semesters. The transition to the practice of Defense Comptrollership is delivered to the DCP class during summer sessions. As part of the course, students are required to take the Certified Defense Financial Management Exam and spend a week in Washington D.C. Upon successful completion of the 14-month tailored curriculum, commissioned officers and professional civilian employees are awarded both an M.B.A. and an Executive M.P.A. degree and assigned to resource management positions throughout the Department of Defense.

### Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

## Degree Requirements

This is a 60 credit dual degree that leads to a Master in Business Administration degree and an Executive masters in Public Administration degree.

## First Quarter-Summer (12 credits)

## GRADUATE COURSE CATALOG

- MBC 601 - Economic Foundations of Business 1.5 credit(s)
- MBC 602 - Economics for International Business 1.5 credit(s)
- MBC 603 - Creating Customer Value 1.5 credit(s)
- MBC 604 - Managing the Marketing Mix 1.5 credit(s)
- MBC 638 - Data Analysis and Decision Making 3 credit(s)
- PPA 730 - Dispute Resolution for Public Managers 3 credit(s)

### Second Quarter-Fall (15 credits)

- PAI 897 - Fundamentals of Policy Analysis 3 credit(s)
- MBC 606 - Information Technology for Decision Support 1.5 credit(s)
- MBC 607 - Understanding Financial Statements 1.5 credit(s)
- MBC 608 - Creating Financial Statements 1.5 credit(s)
- MBC 610 - Opportunity Recognition and Ideation 1.5 credit(s)
- SCM 656 - Project Management 3 credit(s)
- PAI 895 - Mid-career Training Group 1-3 credit(s) (3 credits required) or
- PAI Elective Choice 3 credit(s)

### Third Quarter-Winter and Spring (18 credits)

- PAI 742 - Public Administration and Law 3 credit(s) or
- PAI Elective Choice 3 credit(s) (Winter)
- FIN 600 - Selected Topics 1-6 credit(s) Bank Management (1.5 credits required)
- MBC 609 - Accounting for Managerial Decisions 1.5 credit(s)
- MBC 616 - Operations Management 1.5 credit(s)
- MBC 617 - Supply Chain Management 1.5 credit(s)
- MBC 618 - Competitive Strategy 1.5 credit(s)
- MBC 619 - Corporate Strategy 1.5 credit(s)
- MBC 627 - Financial Markets and Institutions 1.5 credit(s)
- MBC 628 - Fundamentals of Financial Management 1.5 credit(s)

- PAI 895 - Mid-career Training Group 1-3 credit(s) (3 credits required) or
- PAI Elective Choice 3 credit(s)

### Fourth Quarter-Summer (15 credits)

One week visit to Washington, DC

- ACC 760 - Principles of Fraud Examination 3 credit(s)
- BUA 600 - Selected Topics 1-6 credit(s) Seminar in Resource Management (3 credits required)
- BUA 786 - Sem/Army Comptrollership 3 credit(s)
- MBC 647 - Global Entrepreneurial Management 3 credit(s)
- PAI 996 - Master's Project Paper 3 credit(s)

### Additional Information

\* 24 hours of Community Service and passing the CDFM examinations are required

### Satisfactory Progress

Students are required to maintain a GPA of 3.0 or higher to meet degree requirements.

### 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 Courses 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 "Courses") 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

## GRADUATE COURSE CATALOG

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 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 six 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	Joint undergraduate- and graduate-level	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			

## School of Architecture

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.

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

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

## GRADUATE COURSE CATALOG

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 M.Arch program is

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 professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may require a pre-professional undergraduate degree in architecture for admission. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Syracuse University, School of Architecture offers the following NAAB accredited graduate degree program:

M.Arch - (110 credit hours)

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

## Graduate Education

Chair Jean-François Bédard, 225 Slocum Hall

Contact Speranza Migliore, 225 Slocum Hall, (315) 443-1041

Founded in 1873, the Syracuse University School of Architecture provides a diverse and intensive approach to the design of the built environment. The program is committed to providing rigorous professional training and, simultaneously, emphasizes the creative and intellectual foundations of the discipline. The integrated curriculum is designed to prepare students to unite design, research, and technical understanding. Architecture is a dynamic profession, and like the society in which it functions, increasingly complex and fluid. The program seeks to respond with skill, intellect, and passion to the challenges and opportunities of contemporary practice.

Students benefit from extensive one-on-one communication with dedicated professors, in both formal reviews and informal interactions. 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. For a complete listing of faculty members affiliated with the School of Architecture, see the faculty listings under Master of Architecture programs.

The school hosts lectures, symposia, and exhibitions featuring leading practitioners, critics, and scholars. As part of a major liberal arts university, students in the School of Architecture have access to a wide variety of courses throughout the campus and have the opportunity to broaden their intellectual and creative foundation. Students are encouraged to participate in the cultural and social life across the wide spectrum of offerings on campus and in the city of Syracuse.

The Syracuse Architecture M.Arch. is a fully accredited professional degree open to students with non-architecture as well as architecture backgrounds. The Syracuse Architecture Master of Science Research Program supports independent, timely, and innovative research projects in the field of architecture and urbanism. Applications to this program require a brief research proposal.

## Assistantships

In addition to the awards and financial aid described in the graduate prospectus, graduate assistantships are available with responsibility in the areas of teaching or research, depending on the needs of the school and faculty. To qualify, students must have appropriate experience, mainly in the areas of design, architectural history, theory, building technology, drawing, structures, and computing.

For further information about our Graduate programs, visit our website.

## Off Campus Programs

### The Programs

Syracuse Architecture offers opportunities for advanced-level architecture students to spend a semester studying in one of our off-campus centers - New York City, Florence, or London. Graduate students typically study off-campus for a semester after completing the ARC 607 studio. 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,

## GRADUATE COURSE CATALOG

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 nonprofessional 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 off-campus 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 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 off-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.

### Master's

## Architecture First-Professional, M.Arch

Speranza Migliore, Coordinator of Graduate Admissions  
225 Slocum Hall  
ph. (315) 443-1041  
e.smiglior@syr.edu  
Chair Jean-François Bédard, 225 Slocum Hall

### Faculty

Bruce Abbey, Maya Alam, Amber Bartosh, Jean-François Bédard, Lori Brown, Theodore Brown, Lawrence Chua, Angie Co, Gregory Corso, Sekou Cooke, Julia Czerniak, Lawrence Davis, Benjamin Farnsworth, Joseph Godlewski, Terrance Goode, Susan Henderson, Roger Hubeli, Molly Hunker, Elizabeth Kamell, Janette Kim, Randall Korman, Elizabeth Krietemeyer, Julie Larsen, Mark Linder, Brian Lonsway, Sinéad Mac Namara, Arthur McDonald, Kyle Miller, Anne Munly, Daekwon Park, Tarek Rakha, Richard Rosa, Josean Ruiz Esquiroz, Francisco Sanin, David Shanks, Yutaka Sho, Edward Sichta, Michael Speaks, Timothy Stenson, Robert Svetz, Fei Wang

## Program Description

The Syracuse Architecture M.Arch is a fully accredited professional degree that aims to produce architects who not only provide leadership and vision in the construction of the physical environment, but collaboratively draw upon and organize diverse professions and multiple technologies to expand the field of architectural design. Research is an integral part of the course of study, from the first year of courses in design, theory, history, representation, and technology, to the final semester's thesis project.

Because the architect's role in society is complex and changing, students approach the study of architecture as a transdisciplinary enterprise. The program places equal importance on the acquisition of professional skills, knowledge, and expertise, as on the necessity for versatility and innovation in the application of design.

Toward that end, the graduate program has developed the "discursive studio." Each of the first four semesters of design is team-taught by faculty members with differing expertise and approaches, who conduct the studio as a site

## GRADUATE COURSE CATALOG

of debate, exchange, and possibility. Students actively contribute to the conversations and criticism through their design work. This work is informed by seminars, collaborations, and technical and speculative exercises. Studio work is also coordinated with other core courses in theory, history, representation, and technology so that design is pursued as inseparable from other aspects of the discipline as well as the complexities of the broader culture.

Completion of the degree requires seven semesters, each of which includes a 6-credit design studio. The fifth semester offers students the option of studying off campus in one of our studio-based Architecture programs in Florence, London or NYC. The focus of the sixth semester in Syracuse is the visiting critic studio. The program culminates in a thesis project defined and developed by the student working with a faculty advisor.

### Degree Awarded

This is a 110 credit program leading to an M.Arch degree.

### Prerequisites for Admission into the M.Arch Program

The program is open to students with an undergraduate degree in a field other than architecture, or with a non-professional degree in architecture or environmental studies. For those students with no architecture background, the program will require seven semesters of study to complete. The program seeks students with a wide range of experiences; applicants with some background in the arts or design are preferred. Graduates of non-professional architecture and environmental studies degree programs may be awarded as many as 33 credits (approximately one year) of advanced standing in the program (see Advanced Standing section). The completed application form must be accompanied by an official copy of prior academic transcripts, three letters of recommendation, a portfolio of academic and professional work, and a brief statement of interests and objectives. GRE scores are required. TOEFL scores are required for all applicants whose native language is not English.

### Major Requirements

#### Design Courses

- **ARC 604 - Architectural Design I 6 credit(s)**
- **ARC 605 - Architectural Design II 6**

**credit(s)**

- **ARC 606 - Architectural Design III 6 credit(s)**
- **ARC 607 - Architectural Design IV 3-6 credit(s)**
- **ARC 608 - Architectural Design V 6 credit(s)**
- **ARC 609 - Architectural Design VI 6 credit(s)**
- **ARC 998 - Design VII-Thesis 1-9 credit(s)**

#### Professional Core Courses in media, history, theory, structures and technology

- **ARC 585 - Professional Practice 3 credit(s)**
- **ARC 611 - Structures I 3-4 credit(s)**
- **ARC 612 - Structural Systems Design II 3-4 credit(s)**
- **ARC 621 - Building Systems Design I 3-4 credit(s)**
- **ARC 622 - Building Systems Design II 3-4 credit(s)**
- **ARC 623 - Advanced Building Systems 3-4 credit(s)**
- **ARC 631 - Studies in Architectural Histories 3 credit(s)**
- **ARC 639 - Architectural History Principles 3 credit(s)**
- **ARC 641 - Introduction to Architecture 3 credit(s)**
- **ARC 642 - Architectural Theory & Methods 3 credit(s)**
- **ARC 650 - Architectural Research 1 credit(s)** Taken each semester, excluding final semester.
- **ARC 681 - Media I 3 credit(s)**
- **ARC 682 - Media II 3 credit(s)**

#### History Electives

Six credits of History Electives are required for graduation.

- **ARC 500 - Selected Topics 1-6 credit(s)** Selected Topics in Architecture (if taught by a Historian)
- **ARC 600 - Selected Topics 1-6 credit(s)**
- **ARC 632 - Sixteenth Century Italian Architecture 3 credit(s)**

- **ARC 634 - The Architecture of Revolutions 3 credit(s)**
- **ARC 635 - Early Renaissance Architecture in Italy 1400-1529 3 credit(s)**
- **ARC 636 - Italian Seventeenth Century Architecture 3 credit(s)**
- **ARC 637 - American Architecture, Settlement to 1860 3 credit(s)**
- **ARC 638 - American Architecture, 1860 - World War I 3 credit(s)**
- **ARC 731 - Early Modern Architecture 3 credit(s)**
- **ARC 732 - The City in Architectural History 3 credit(s)**
- **ARC 735 - Islamic Architecture 3 credit(s)**
- **ARC 736 - Modern Architecture: The International Style to Present 3 credit(s)**
- **ARC 737 - French Architecture, Sixteenth and Seventeenth Centuries 3 credit(s)**

#### Professional Electives

Fifteen credits of professional electives are required for graduation.

- **ARC 500 - Selected Topics 1-6 credit(s)**
- **ARC 535 - Organicism in Modern Architecture 3 credit(s)**
- **ARC 536 - Italian Urbanism: 100 Cities 3 credit(s)**
- **ARC 537 - Italian Medieval Architecture and Urbanism 3 credit(s)**
- **ARC 538 - Artistic Patronage of Medici 3 credit(s)**
- **ARC 539 - Italian Architecture, 1909-1959 3 credit(s)**
- **ARC 551 - Le Corbusier 1887-1965 3 credit(s)**
- **ARC 556 - Rem Koolhaas: Architect, Historian, Provocateur, Document Maker 3 credit(s)**
- **ARC 557 - Utopia: Design and Cultural Imagination 3 credit(s)**
- **ARC 563 - Introduction to Computer Applications in Architecture 2-3 credit(s)**
- **ARC 564 - Drawing 3 credit(s)**
- **ARC 568 - Real Estate Design and**



## GRADUATE COURSE CATALOG

### Development 3 credit(s)

- **ARC 565 - Visual Design 3 credit(s)**
- **ARC 566 - Introduction to Preservation 3 credit(s)**
- **ARC 571 - Survey of Italian Architecture 3 credit(s)**
- **ARC 572 - Advanced Computer Applications to Architecture 2-3 credit(s)**
- **ARC 573 - Utopia and Transformation in Early American Town Planning 3 credit(s)**
- **ARC 574 - Reading the Landscape 3 credit(s)**
- **ARC 575 - Urban Housing - Building, Block, Street 3 credit(s)**
- **ARC 576 - Theories & Analysis of Exurbia 3 credit(s)**
- **ARC 577 - Visual Studies 3 credit(s)**
- **ARC 578 - Facade as Idea 3 credit(s)**

### Other Electives

Open to all students in good academic standing.

- **ARC 690 - Independent Study 1-6 credit(s)**

### Additional Information

An additional 6 open elective credits are required.

### Study Abroad

Students enrolled in the M.Arch program are eligible for off campus study in our studio based programs in NYC, Florence and London after completing 2nd year 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.

### Advanced Standing

M.Arch applicants who have completed or are about to complete an undergraduate degree in a non-professional program in architecture or environmental studies may apply for advanced standing in design. Advanced standing is determined after a complete review of the applicant's portfolio by representatives of the faculty who teach in the areas of design, history, technology, structures, and representation. Students who are accepted with advanced

standing will receive credit for the first two design studios (ARC 604 and ARC 605).

They may also receive credit for demonstrated competence in the content/design areas represented by required (not optional or professional elective courses) courses in the M.Arch curriculum that duplicate courses taken while fulfilling their undergraduate degree requirements at accredited institutions if a grade of "B" or better was earned. Students can determine if their previous academic courses duplicate required courses offered in the School of Architecture by reading the course descriptions in the SU catalog or on the School's web site.

A total of 6 credits earned from coursework completed as an undergraduate in excess of the total required for the bachelor's degree, provided that the work is graduate level and has been completed with a grade of "B" or better, may be transferred. Total advanced standing credit may not exceed 33 credits. A maximum of 30% of credits counted toward a master's degree at Syracuse University may be accepted from another institution.

### Architecture, MS

Speranza Migliore, Coordinator of Graduate Admissions  
225 Slocum Hall  
ph. (315) 443-1041  
e. smiglior@syr.edu

### Chair

Jean-François Bédard, 225 Slocum Hall

### Faculty

Bruce Abbey, Maya Alam, Amber Bartosh, Jean-François Bédard, Lori Brown, Theodore Brown, Lawrence Chua, Anglea Co, Gregory Corso, Sekou Cooke, Julia Czerniak, Lawrence Davis, Benjamin Farnsworth, Joseph Godlewski, Terrance Goode, Susan Henderson, Roger Hubeli, Molly Hunker, Elizabeth Kamell, Janette Kim, Elizabeth Krietemeyer, Julie Larsen, Randall Korman, Mark Linder, Brian Lonsway, Sinéad Mac Namara, Arthur McDonald, Kyle Miller, Anne Munly, Daekwon Park, Terek Rakha, Richard Rosa, Josean Ruiz Esquiroz, Francisco Sanin, David Shanks, Yutaka Sho, Edward Sichta, Michael Speaks, Timothy Stenson, Robert Svetz, Fei Wang

### Program Description

The Syracuse Architecture Master of Science Research Program seeks theoretically or speculatively inclined architects and emerging scholars whose research can be applied to pressing contemporary problems and

opportunities. This two semester, 30-credit course of study admits a limited number of students whose areas of interest can be matched with the expertise and ongoing research of the school's faculty. The program encourages transdisciplinary research that explores the capacity of architecture to engage new constituencies or operate in new contexts, although the range of possible projects is as diverse as the faculty's interests.

### Degree Awarded

This is a 30 credit program leading to a Master of Science in Architecture degree.

### Prerequisite for Admission into the M.S. in Architecture Program

Applicants should articulate a distinct topic in a brief statement of interest and elaborate on their current research skills and prior experience in the field. Students accepted to the program will define their project more precisely in discussion with a faculty advisor in the months prior to enrollment. Instruction occurs in a variety of formal settings including self-directed studios, independent study, and graduate-level courses offered in the School of Architecture or other units of Syracuse University, where cross-disciplinary interaction and exchange are strongly supported and encouraged. The program concludes with a symposium in Syracuse, where students present the results of their design work and research.

The program is open to qualified students with a professional degree in architecture (B.Arch or M.Arch, or equivalent) or with demonstrable research skills and work in architecture or related fields. The completed application form must be accompanied by an official copy of prior academic transcripts, three letters of recommendation, a portfolio of academic and professional work, and a brief research proposal outlining clear intellectual interests and educational objectives and demonstrating preparedness for the demands of the program. GRE scores are highly recommended, but not required. TOEFL scores are required for all applicants whose native language is not English.

### Major Requirements

Students will complete 30 credit hours of course work. Students work closely with their advisors and the graduate program chair to determine which courses they should take to develop their research project.

All master's students must present a final project to their committee members representing a culmination of what they have learned in their

# GRADUATE COURSE CATALOG

research.

## Study Abroad

Students interested in off campus study should discuss how off campus study can enhance their research project with their advisor and the graduate program chair. Requests for off campus study will be considered on a case-by-case basis.

## Note

Please note that this program does not meet the licensure requirements to become an architect in New York and is not considered licensure qualifying in New York.

## Architecture

### ARC 500 - Selected Topics

#### *School of Architecture*

1-6 credit(s) Every semester

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### ARC 505 - Thesis Preparation

#### *School of Architecture*

3 credit(s) Every semester

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 ARC 622)) AND ((ARC 408 OR (ARC 608 WITH MINIMUM GRADE C))

### ARC 508 - Architectural Design IX- Thesis

#### *School of Architecture*

6 credit(s) Every semester

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

#### *School of Architecture*

3 credit(s) Irregularly

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

#### *School of Architecture*

3 credit(s) Irregularly

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

#### *School of Architecture*

3 credit(s) Every semester

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

#### *School of Architecture*

3 credit(s) Every semester

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

#### *School of Architecture*

3 credit(s) Every semester

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

#### *School of Architecture*

3 credit(s) Every semester

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

#### *School of Architecture*

3 credit(s) Irregularly

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

#### *School of Architecture*

3 credit(s) Irregularly

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

#### *School of Architecture*

3 credit(s) Irregularly

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

#### *School of Architecture*

3 credit(s) Irregularly

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

#### *School of Architecture*

3 credit(s) Irregularly

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

#### *School of Architecture*

3 credit(s) Every semester

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 ARC 608 OR ARC 609

## GRADUATE COURSE CATALOG

### **ARC 562 - Cities and the Culture of Urban Housing Morphologies**

#### **School of Architecture**

3 credit(s) Irregularly

This course will focus on urban housing related to the cultural and physical context of major cities. Morphologies of urban housing will be examined in both historical and contemporary perspectives to study continuities of types.

### **ARC 563 - Introduction to Computer Applications in Architecture**

#### **School of Architecture**

2-3 credit(s) At least 1x fall or spring

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**

#### **School of Architecture**

3 credit(s) At least 1x fall or spring

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**

#### **School of Architecture**

3 credit(s) Irregularly

Elements and principles of visual organization, perception, and communication through various two- and three-dimensional exercises.

PREREQ: ARC 208

### **ARC 566 - Introduction to Preservation**

#### **School of Architecture**

3 credit(s) At least 1x fall or spring

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**

#### **School of Architecture**

3 credit(s) At least 1x fall or spring

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**

#### **School of Architecture**

3 credit(s) Every semester

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 ARC 408 OR ARC 608 OR ARC 609

### **ARC 572 - Advanced Computer Applications to Architecture**

#### **School of Architecture**

2-3 credit(s) At least 1x fall or spring

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**

#### **School of Architecture**

3 credit(s) Irregularly

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**

#### **School of Architecture**

3 credit(s) Irregularly

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**

#### **School of Architecture**

3 credit(s) Irregularly

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**

#### **School of Architecture**

3 credit(s) Irregularly

Course studies history, evolution, and contemporary condition of exurban built environment in America.

PREREQ: ARC 208

### **ARC 577 - Visual Studies**

#### **School of Architecture**

3 credit(s) Irregularly

Conceptual development and visual representation of the thesis idea.

PREREQ: ARC 505

### **ARC 578 - Facade as Idea**

#### **School of Architecture**

3 credit(s) Irregularly

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 ARC 607

### **ARC 585 - Professional Practice**

#### **School of Architecture**

3 credit(s) Every semester

Legal and administrative aspects of architectural practice. The architect's role in society.

PREREQ: ARC 322

### **ARC 600 - Selected Topics**

#### **School of Architecture**

1-6 credit(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. Repeatable

### **ARC 604 - Architectural Design I**

#### **School of Architecture**

6 credit(s) At least 1x fall or spring

Introduction to design techniques, processes, and issues including spatial organization, program, site, materials, structure, and assembly. Exercises and projects emphasize conceptual development and initiate engagement with technological issues.

### **ARC 605 - Architectural Design II**

#### **School of Architecture**

6 credit(s) At least 1x fall or spring

Further development of design techniques and processes, including conceptual development through modeling, site analysis, fabrication, and systems integration.

PREREQ: ARC 604

### **ARC 606 - Architectural Design III**

#### **School of Architecture**

6 credit(s) At least 1x fall or spring

Architectural design in relation to the city and landscape. Exercises and projects emphasize environmental, economic, cultural, social and political issues as factors in design.

PREREQ: ARC 605

## GRADUATE COURSE CATALOG

### **ARC 607 - Architectural Design IV**

#### **School of Architecture**

3-6 credit(s) At least 1x fall or spring  
Integration of skills and knowledge in a building design that comprehensively addresses program, site building codes and contemporary technologies.  
PREREQ: ARC 606

### **ARC 608 - Architectural Design V**

#### **School of Architecture**

6 credit(s) At least 1x fall or spring  
Continuation of ARC 607. Project development. Choice of studio by permission.  
PREREQ: ARC 607

### **ARC 609 - Architectural Design VI**

#### **School of Architecture**

6 credit(s) At least 1x fall or spring  
Advanced studio. Choice of upper-level studio.  
PREREQ: ARC 608 WITH MINIMUM GRADE OF C

### **ARC 611 - Structures I**

#### **School of Architecture**

3-4 credit(s) At least 1x fall or spring  
Introduces basic concepts of structural system behavior; gravity and lateral loads, analysis of major structural forms, and structural performance of materials. Evaluation to include a research project.

### **ARC 612 - Structural Systems Design II**

#### **School of Architecture**

3-4 credit(s) At least 1x fall or spring  
Design of structures; choice of appropriate materials and system, design of structural components in concrete, timber and steel. Introduction to earthquake loads, high rise, pre-stressed concrete, and indeterminate structures. Evaluation to include research project.

### **ARC 621 - Building Systems Design I**

#### **School of Architecture**

3-4 credit(s) At least 1x fall or spring  
Introduces materials and methods of building construction, basic building assemblies, and their elements. Energy conservation and conformance to regulatory codes also addressed.

### **ARC 622 - Building Systems Design II**

#### **School of Architecture**

3-4 credit(s) At least 1x fall or spring  
Investigates systems of architectural environmental control, movement systems, and electrical distribution. Relation to building assemblies and their elements also addressed.  
PREREQ: ARC 621

### **ARC 623 - Advanced Building Systems**

#### **School of Architecture**

3-4 credit(s) Every semester  
Case studies of the interrelationship of design concepts with constructional, structural, and mechanical systems. Lecture and studio. Evaluation to include a research project.  
PREREQ: ARC 612 AND ARC 622

### **ARC 632 - Sixteenth Century Italian Architecture**

#### **School of Architecture**

3 credit(s) Every semester  
Double Numbered 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: ARC 639

### **ARC 634 - The Architecture of Revolutions**

#### **School of Architecture**

3 credit(s) At least 1x fall or spring  
Crosslisted with: HOA 654  
Double Numbered with: ARC 334  
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 635 - Early Renaissance Architecture in Italy 1400-1529**

#### **School of Architecture**

3 credit(s) Every semester  
Double Numbered with: ARC 335  
Architectural theory and design in Italy, 1400-1520. Additional work required of graduate students.  
PREREQ: ARC 639

### **ARC 636 - Italian Seventeenth Century Architecture**

#### **School of Architecture**

3 credit(s) Irregularly  
Double Numbered 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: ARC 639

### **ARC 637 - American Architecture, Settlement to 1860**

#### **School of Architecture**

3 credit(s) Irregularly  
Double Numbered 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 639

### **ARC 638 - American Architecture, 1860 - World War I**

#### **School of Architecture**

3 credit(s) Irregularly  
Double Numbered 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 639

### **ARC 639 - Architectural History Principles**

#### **School of Architecture**

3 credit(s) At least 1x fall or spring  
Examination of the principles of architectural history through study of selected buildings and movements.

### **ARC 641 - Introduction to Architecture**

#### **School of Architecture**

3 credit(s) At least 1x fall or spring  
An introduction to basic definitions and concepts of architecture as an intellectual and physical discipline, and as an expression of established and emerging cultural values.

### **ARC 642 - Architectural Theory & Methods**

#### **School of Architecture**

3 credit(s) At least 1x fall or spring  
Introduction to architectural theory, presented as precise and distinct modes of speculation based in research. It will develop skills necessary to define, conduct, and present research work and how it informs design practice.  
PREREQ: ARC 641

### **ARC 650 - Architectural Research**

#### **School of Architecture**

1 credit(s) Every semester  
Selected approaches to architectural research. Repeatable 4 time(s), 5 credits maximum

### **ARC 681 - Media I**

#### **School of Architecture**

3 credit(s) At least 1x fall or spring

# GRADUATE COURSE CATALOG

Introduction to the use and implications of analogue and digital media. Students will learn fundamental skills and develop innovative applications for diverse drawing techniques and other media.

## ARC 682 - Media II

### **School of Architecture**

3 credit(s) At least 1x fall or spring  
Continued study of architectural media with emphasis on capacities and techniques of modeling, including advanced digital design and fabrication.  
PREREQ: ARC 681

## ARC 690 - Independent Study

### **School of Architecture**

1-6 credit(s) Every semester  
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.  
Repeatable

## ARC 700 - Selected Topics

### **School of Architecture**

1-6 credit(s) Every semester  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

## ARC 707 - Architectural Design

### **School of Architecture**

9 credit(s) Irregularly  
M.S. in Architecture graduate design studio dealing with urban architectural problems. Conducted primarily by adjunct faculty.

## ARC 708 - Architectural Design

### **School of Architecture**

9 credit(s) Irregularly  
M.S. in Architecture graduate design studio dealing with urban architectural problems. Conducted primarily by adjunct faculty.  
PREREQ: ARC 707

## ARC 731 - Early Modern Architecture

### **School of Architecture**

3 credit(s) Irregularly  
Double Numbered with: ARC 431  
Early modern architecture from the 1890s through the 1930s. Additional work required of graduate students.  
PREREQ: ARC 639

## ARC 732 - The City in Architectural History

### **School of Architecture**

3 credit(s) Irregularly  
Double Numbered 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: ARC 639

## ARC 735 - Islamic Architecture

### **School of Architecture**

3 credit(s) Irregularly  
Double Numbered 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: ARC 639

## ARC 736 - Modern Architecture: The International Style to Present

### **School of Architecture**

3 credit(s) Irregularly  
Double Numbered 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: ARC 639

## ARC 737 - French Architecture, Sixteenth and Seventeenth Centuries

### **School of Architecture**

3 credit(s) Irregularly  
Double Numbered 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: ARC 639

## ARC 770 - Architectural Research

### **School of Architecture**

3-8 credit(s) Irregularly  
Individual or group research into particular aspects or problems in architecture, under supervision of the faculty.  
Repeatable

## ARC 998 - Design VII-Thesis

### **School of Architecture**

1-9 credit(s) Every semester  
A major, semester-long, final design project initiated and based on a program produced by the student and accepted by the faculty.

PREREQ: ARC 505 WITH MINIMUM GRADE C AND ARC 623  
Repeatable 1 time(s), 9 credits maximum

## School of Architecture Faculty

Bruce Abbey, Professor  
M.Arch., Princeton University, 1971; B.Arch., Cornell University, 1966  
Architectural Design and Theory

Maya Alam, Assistant Professor  
M.Arch., Southern California Institute of Architecture, 2012; German Diploma Ing., Interior Architecture, Peter Behrens School of Architecture, 2007  
Architectural Design

Amber Bartosh, Assistant Professor  
M.Arch., 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; M.Arch. (History and Theory of Architecture), McGill University, 1992; B.Arch., McGill University, 1987  
Architectural History

Lori Brown, Associate Professor  
M.Arch., Princeton University, 1994; ; B.S. Georgia Institute of Technology, 1991  
Architectural Design; politics of spatial production, intersections between art and architectural practices

Theodore Brown, Professor, Chair, Undergraduate Program  
M.Arch., Princeton University, 1981; B.Arch., University of Virginia, 1978  
Architectural Design and Theory

Lawrence Chua, Assistant Professor  
Ph.D. History of Architecture and Urban Development, Cornell University, 2012; M.A. History of Architecture and Urbanism, Cornell University, 2006; B.A., New York University, 1986  
Architectural History

Angela Co, Assistant Professor, Program Director, NYC  
M.Arch., Columbia University, 2005; B.Arch., University of Pennsylvania, 2001  
Architectural Design

Gregory Corso, Assistant Professor  
M.Arch., 2010 & B.A., 2003, University of California at Los Angeles  
Architectural Design

Sekou Cooke, Assistant Professor  
M.Arch., Harvard University, 2014; B.Arch., Cornell University, 1999  
Architectural Design

Julia Czerniak, Professor, Associate Dean

## GRADUATE COURSE CATALOG

M. Arch., Princeton University, 1992; B.S. Landscape Architecture, Pennsylvania State University, 1984  
Architectural Design, Landscape Architecture

Lawrence Davis, Associate Professor  
M. Arch., Columbia University, 1988; B.Arch., University of Cincinnati, 1985  
Architectural Design; Registered Architect in NY State, NCARB

Benjamin Farnsworth, Assistant Professor  
M.Arch., Southern California Institute of Architecture, 2013; B.A., Architecture, London Metropolitan University, 2009, B.Sc., London School of Economics  
Architectural Design and Theory

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; B.S. Architecture, University of Southern California, 1978  
Architectural Design

Susan Henderson, Professor  
Ph.D., Columbia University, 1989; M.Arch., Massachusetts Institute of Technology, 1977, B.A. Environmental Design, University of Washington, 1974  
Architectural History

Roger Hubeli, Assistant Professor  
Dipl. Arch. ETH Zurich Switzerland; CEPT School of Architecture, Ahmedabad India (Exchange Program)  
Architectural Design and Technology

Molly Hunker, Assistant Professor  
M.Arch., University of California at Los Angeles, 2010; B.A., Dartmouth College, 2005  
Architectural Design

Elizabeth Kamell, Associate Professor  
S.M. Arch. S., Massachusetts Institute of Technology, 1996; B.Arch., Cornell University, 1982  
Architectural design

Janette Kim, Assistant Professor  
M.Arch., Princeton University, 2001; B.A., Architecture, Columbia College, Columbia University, 1997  
Architectural Design

Randall Korman, Professor  
M.Arch., Harvard University, 1977; B.Arch., The Cooper Union, 1972  
Architectural Design

Elizabeth Krietemeyer, Assistant Professor  
Ph.D. in Architectural Sciences, Rensselaer Polytechnic Institute; M.S., RPI, 2009; B.Arch., RPI, 2005  
Architectural Design and Technology

Julie Larsen, Assistant Professor  
M.Arch., Columbia University, 2002; B.S., Architecture, University of Illinois, 1997  
Architectural Design

Mark Linder, Associate Professor  
Ph.D., Princeton University, 1998; M.Arch., Yale University, 1986; B.S. Architecture, University of Virginia, 1982  
Architectural Design and Theory

Brian Lonsway, Associate Professor  
M.Arch., Columbia University, 1995; B.A. Architecture, Washington University, 1992  
Architectural Design; cultural theory, computation

Jonathan Louie, Assistant Professor  
M.Arch II, University of California, 2012; B.Arch, Syracuse University, 2007  
Architectural Design

Sin ad Mac Namara, Associate Professor, Honors Faculty Ph.D., Princeton University, 2006; B.A.I., Trinity College, University of Dublin, 1999  
Civil and Environmental Engineering  
Arthur McDonald, Professor  
M.Arch., Cornell University, 1972; B.Arch., Pratt Institute, 1963  
Architectural Design; urban theory and design, urban housing

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; B.Arch., University of Virginia, 1978  
Architectural Design

Daekwon Park, Assistant Professor  
M.DesS, Harvard University, 2012; M.Arch., University of Illinois at Urbana-Champaign, 2006; B.S., Architecture, Yeungnam University, 2004  
Architectural Design and Technology

Tarek Rakha, Assistant Professor  
M.Sc., Architecture, Cairo University, 2010; B.Sc., Architecture, Cairo University, 2007  
Architectural Design and Technology

Richard Rosa, Associate Professor; Program Director, Florence  
M.Arch., Harvard University, 1993; B.Arch Syracuse University, 1988;  
Architectural Design

Francisco Sanin, Professor; Program Director, London  
Diploma, Universidad Pontificia Bolivariana (Colombia), 1979  
Architectural Design, Urban Design

David Shanks, Assistant Professor  
M.Arch., Harvard University, 2009; B.A. Urban Design and Architecture Studies, New York University, 2003  
Architectural Design

Yutaka Sho, Associate Professor  
M.Arch., Harvard University, 2005; B.F.A. & B.L.A., Rhode Island School of Design, 1996  
Architectural Design

Edward Sichta, Associate Professor  
M.F.A., Syracuse University, 1969; B.F.A., Schools of the Art Institute of Chicago and the University of Chicago, 1967  
Drawing and Visual Design

Michael Speaks, Professor, Dean  
Ph.D., Duke University, 1993; B.A., University of Mississippi, 1983

Timothy Stenson, Associate Professor;  
M.Arch., 1988 & B.S. Architecture, 1981, University of Virginia  
Architectural Design and Technology; low-energy building research

Robert Svetz, Assistant Professor  
M.Arch., Yale University, 2002; B.Arch., New Jersey Institute of Technology, 1994  
Architectural Design and Technology  
Fei Wang, Assistant Professor  
M.Arch. History of Theory, McGill University, 2007; M.Arch., Virginia Tech, 2005; B.Arch., Tongji University, 2003  
Architectural Design and History

## College of Arts and Sciences

Karin Ruhlandt, Dean  
300 Hall of Languages  
thecollege.syr.edu/

### About the College

As the liberal arts college at the center of a major research institution, the College of Arts and Sciences stands as the intellectual heart and soul of Syracuse University providing a highly-personalized academic experience. The College prepares each student for success as a citizen of the world through disciplinary and interdisciplinary teaching and learning, research, scholarship, and service, on campus and around the world. 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, 58 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 Syracuse University'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

### 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

### Graduate Studies

The College of Arts and Sciences offers a number of graduate degree programs in the Humanities and in the Natural Sciences and Mathematics. Graduate programs in the Social Sciences are offered by the Maxwell School of Citizenship and Public Affairs. Graduate applications are submitted through Syracuse University's Graduate School.

For a list of Graduate Programs please refer to the Academic Offerings.

### Master's

### Applied Statistics, MS

### Contact:

Pinyuen Chen, Advisor  
pinchen@syr.edu  
215 Carnegie  
315-443-1577

### Faculty

Eddie Bevilacqua, Pinyuen Chen, Peng Gao, Susan H. Gensemer, Vernon L. Greene, Chihwa (Duke)

Kao, Hyune-Ju Kim, Yingyi Ma, Jan Ivar Ondrich, Steve Stehman, Raja Velu, William Volterman, Janet Wilmoth, Yildiray Yildirim, Lianjun Zhang

A graduate program in applied statistics leading to a master's degree is administered by the interdisciplinary Statistics Program. This program includes professors from computer and information science, education, engineering, management, mathematics, psychology, and the social sciences, among others. This program is distinguished from other graduate programs in statistics by its emphasis on applications. The interdisciplinary program in statistics is based in the College of Arts and Sciences, but welcomes students from all schools and colleges at Syracuse University. Included among these may be students who are pursuing other degrees, but might wish also to pursue the M.S. degree in statistics.

### Admission

All applicants are expected to have a basic foundation in statistical training that includes one course in introductory statistics, one course in regression analysis, and four courses in applications areas. Graduate Record Examination scores, or their equivalent, and performance in a student's undergraduate degree program will be carefully evaluated.

Applicants who are not currently enrolled in any program at Syracuse apply for admission to the Applied Statistics Master's degree program through [http://www.syr.edu/gradschool/em/future\\_howtoapply.html](http://www.syr.edu/gradschool/em/future_howtoapply.html) by March 15. Students who are currently enrolled at Syracuse University should contact Professor Pinyuen Chen at pinchen@syr.edu for further information.

### M.S. Degree

The master's degree in applied statistics requires completion of 33 graduate credits. Each candidate must submit a coherent program of 11 courses beyond the bachelor's degree, subject to the following requirements.

Within the first semester after admission to the degree program, the students will plan their course of study in consultation with their advisors and submit it for approval to the Statistics Program Director.

In order to graduate, a student must earn (1) at least a 3.0 grade in each of the four core courses, (2) a GPA of 3.0 or better in this program of study leading to the M.S. in applied statistics, and (3) no more than two Cs in his/her statistics program coursework.

The absence of either a comprehensive final examination or a master's thesis is compensated for by an additional 3 credits of coursework, represented by STT 690 or STT 750 / MAT 750,

## GRADUATE COURSE CATALOG

whose objective is to apply knowledge of statistics to some real world problem.

### Four Core Courses

All candidates for the degree program must complete the following set of four core courses (12 credits):

- **MAT 521 - Introduction to Probability 3 credit(s)** (students with a strong mathematics background are to take MAT 651).
- **MAT 525 - Mathematical Statistics 3 credit(s)** (students with a strong mathematics background are to take MAT 652).
- **STT 750 - Statistical Consulting 3 credit(s)** or
- **MAT 750 - Statistical Consulting 3 credit(s)** For those students who do not include STT 750/MAT 750 in their programs of study, STT 690 should be taken and it should have a significant consulting component.

Any one of the following courses in regression Analysis:

- **MAT 654 - Linear Models 3 credit(s)**
- **PSY 757 - Multiple Correlation and Regression 3 credit(s)**
- **MAS 766 - Linear Statistical Models I: Regression Models 3 credit(s)**
- APM 630
- **SOC 714 - Intermediate Social Statistics 3 credit(s)**
- **ECN 621 - Econometrics I 3 credit(s)**
- PPA 810

Four graduate courses (12 credits) are to be chosen from the following list:

### Design of Experiments

- **PSY 756 - Experimental Design and Statistical Methods II 3 credit(s)**
- **PSY 853 - Experimental Design and Statistical Tests 3 credit(s)**
- **MAS 767 - Linear Statistical Models II: Variance 3 credit(s)**
- APM 620

### Sampling Theory

- **MAS 765 - Sample Survey Methods and Theory 3 credit(s)**
- APM 625

### Multivariate Methods

- **PSY 857 - Multivariate Analysis 3 credit(s)**
- APM 635
- **SOC 813 - Advanced Social Statistics 3 credit(s)**
- **PAI 721 - Introduction to Statistics 3 credit(s)**
- **PAI 722 - Quantitative Analysis 3 credit(s)**
- **PAI 730 - Problems in Public Administration 1-3 credit(s)**
- **PSC 794 - Advanced Quantitative Political Analysis 3 credit(s)**
- **MAT 755 - Multivariate Statistical Analysis 3 credit(s)**

### Nonparametric Methods

- **MAS 723 - Nonparametric Statistics 3 credit(s)**

### Time Series Modeling and Analysis

- **MAS 777 - Time Series Modeling and Analysis 3 credit(s)**

### Stochastic Processes/Markov Processes

- **MAT 526 - Introduction to Stochastic Processes 3 credit(s)**
- **ECE 756 - Random Processes 0 credit(s)**

### Statistical Simulation and Nonstandard Data Analysis

- **MAT 653 - Statistical Simulation and Nonstandard Data Analysis 3 credit(s)**

### Topics in Statistics

- **MAT 850 - Topics in Statistics 3 credit(s)**

### Advanced Probability I and II

- **MAT 721 - Probability I 3 credit(s)**
- **MAT 722 - Probability II 3 credit(s)**

### Statistical Ranking, Selection, and Multiple Comparisons

- **MAT 752 - Statistical Ranking, Selection, and Multiple Comparisons 3 credit(s)**

### Spatial Statistics

- **GEO 686 - Quantitative Geographic Analysis 3 credit(s)**

### Econometrics

- **ECN 620 - Foundations of Econometrics 3 credit(s)**
- **ECN 622 - Econometrics II 3 credit(s)**
- **ECN 720 - Topics in Econometrics 3 credit(s)**

### Statistical Consulting

- **STT 750 - Statistical Consulting 3 credit(s)**
- **MAT 750 - Statistical Consulting 3 credit(s)**

The remaining 9 credits, selected in consultation with the student's advisor, should:

1. emphasize statistical applications, or
2. involve consulting or advisement about statistical applications.

### Degree:

Master of Science in Applied Statistics

Total Credits: 33

## Art History, MA

Theodore Philip Cateforis, Chair  
308 Bowne Hall  
315-443-4835

## Director of Graduate Studies:

Sascha Scott  
308 Bowne Hall  
315-443-5033

## Director of Graduate Studies Florence

Sally Cornelison  
308 Bowne Hall  
315-443-9198

## Faculty

Molly Bourne, Luis Castañeda, Sally Cornelison, Laurinda Dixon, Wayne Franits, Jeehee Hong, Matilde M. Mateo, Jonathan Nelson, Romita Ray, Sascha Scott



## GRADUATE COURSE CATALOG

### M.A. in Art History

The M.A. in art history requires thirty graduate credits, taken over a period of two years time, during which students plan individualized programs of study under the guidance of the faculty. Courses offered in art history cover a broad range of subject areas, providing opportunities for both breadth and specialization. At least one course in each of the five broad areas of art history taught in the department -ancient/medieval, Renaissance, Baroque/18th century, modern/American, and non-Western-are required. Also required are HOA 655 - Proseminar in Graduate Research Methods and Scholarly Writing and HOA 656 - Literature of Art Criticism.

Colloquia and special lectures augment formal courses. With permission, a limited number of credits may be taken outside the department, such as studies in literature, aesthetics, museum studies, and art librarianship, when relevant to a student's program of study. Courses in studio art are not included in the degree program. Information on graduate programs in studio arts or museum studies can be obtained by writing to the assistant dean, College of Visual and Performing Arts.

During the first semester of graduate study, students take an art history qualifying exam, which tests knowledge of major monuments and disciplinary vocabulary. The art history exam must be passed successfully before students enroll in their second semester of study. Students also take a language exam, which assesses reading knowledge of Italian, French, German, or Spanish. The language exam must be passed by the beginning of their second year. In their last semester, students participate in a seminar, during which they prepare a qualifying paper and present their findings at a public symposium.

Faculty specializations in medieval, Italian and Northern Renaissance, baroque, and 18th- 20th century art are reflected in library holdings that include several visual databases and a comprehensive collection of books and periodicals. The Syracuse University Art Collection and the nearby Everson Museum of Art have notable collections of paintings, photographs, prints, ceramics, and sculpture.

### Concurrent Degree with Museum Studies

Concurrent degrees are offered in art history within the College of Arts and Sciences and in museum studies through the College of Visual and Performing Arts. For these degrees, students complete a minimum of 55 credits, which must include the requirements for the M.A. in museum studies (33 credits) and the M.A. in art history (22 credits). While students may work on the two degrees simultaneously, the art history

degree is not awarded until the museum studies requirements have been completed.

For information on the M.A. in museum studies, contact Edward Aiken, Director of the Museum Studies Program, The Warehouse 1st floor, eaaiken@syr.edu.

### M.A. in Art History in Florence, Italy

Thirty graduate credits are required for the specialized M.A. degree program in the study of Italian Renaissance art.

### Florence Fellowship Program

Four graduate fellowships are awarded annually. Applicants for this program must have a strong working knowledge of the Italian language and must meet entrance qualifications for graduate study in the Department of Art and Music Histories. Students begin their coursework in the fall semester at the University's main campus in Syracuse, where they complete three graduate seminars. Students are also required to audit a formal Italian language class. Upon successful completion of the fall semester, students register for two semesters of advanced coursework at Syracuse University's Villa Gigliucci in Florence. Four seminars are offered during the spring semester, and in the following fall semester students enroll in a seminar on art conservation and the advanced research seminar culminating in a public colloquium devoted to aspects of Renaissance art history.

The deadline for application to these programs is January 1.

### Arts Leadership Administration, MA

#### Contact:

Mark Nerenhausen, Professor of Practice and Founding Director  
manerenh@syr.edu  
308 Bowne Hall  
443-1796

The Janklow Arts Leadership Program is a comprehensive 15-month, 39-credit hour master's program for recent college graduates and experienced practitioners. Candidates acquire core skills, as well as practical experience and understanding needed to become innovative leaders of for-profit or nonprofit arts organizations in the visual and performing arts. The program combines interdisciplinary coursework with professional mentorship, competitive internships

and unique immersion opportunities. The curriculum encompasses coursework in entrepreneurship and leadership; marketing and public relations; financial accounting and budgetary planning; operations; strategic planning and analysis; financial and audience development; education and outreach; and legal, ethical, and public policy issues in the arts. Students gain strong management skills; local and global internship experiences; and positive leadership traits to make them successful visionaries and administrators.

### Admission:

Applicants must have a B.A. or B.S. degree from a regionally accredited college or university, strong GRE test scores, and demonstrate knowledge of the arts or business management or both.

Limited financial support is available for qualified applicants.

### Requirements:

15 month, 39 credit hours including 2 immersion courses; locations may include NYC and South Florida; capstone and internship.

### Degree:

M.A. in Arts Leadership Administration Students must maintain a Graduate School required minimum GPA of 3.0.

### Total Credits: 39

### Biology, MS

### Graduate Program

#### Directors:

Steve Dorus, 315-443-7091  
sdorus@syr.edu  
248 Life Sciences Complex

Jason Fridley, 315-443-3098  
fridley@syr.edu  
448 Life Sciences Complex

Graduate Program Administrator  
114 Life Sciences Complex  
315-443-9154  
biology@syr.edu.

### Faculty

David M. Althoff, John M. Belote, Carlos Castañeda, Heather Coleman, Steve Dorus, Scott E. Erdman, Douglas A. Frank, Jason D. Fridley, Jannice Friedman, Anthony Garza, Paul Gold, Sarah Hall, James A. Hewett, Sandra J. Hewett,

## GRADUATE COURSE CATALOG

Donna Korol, George M. Langford, Katharine Lewis, Jessica MacDonald, Eleanor Maine, Susan Parks, Melissa Pepling, Scott Pitnick, Ramesh Raina, Mark Ritchie, Kari A. Segraves, Robert Silver, Roy Welch, Jason R. Wiles

The Department of Biology is committed to research-oriented graduate training of the highest quality. A wide variety of disciplines are offered within the areas of biochemistry, developmental biology, genetics, molecular and cellular biology, neurobiology, ecology, and evolution. Students may focus their graduate studies in Cell/Molecular Biology or in Ecology & Evolution, and some students may choose to address questions that span both of these major areas of research. Each student's program is individually structured to provide the maximum flexibility in the choice of coursework consistent with high quality graduate scholarship.

The Department currently averages 40 full-time graduate students. About 75 percent of the students enroll directly following their undergraduate work; others come with a master's degree earned elsewhere.

Program graduates are encouraged to pursue postdoctoral training at established laboratories prior to accepting professional appointments. Most recent graduates have found employment in university and colleges, many after completing postdoctoral work. Others have found posts in government, industry, hospital laboratories, and in private research institutes.

### Admissions

Successful applicants generally have a minimum undergraduate average of B and high scores on the verbal, quantitative and writing tests of the Graduate Record Examinations (GRE).

Applicants must also have earned a B.S. or a B.A. degree and should have at least a minimal background in both physical and biological sciences, including the following: two years of biology, one year each of introductory chemistry, organic chemistry with laboratory, physics, and college level calculus. Although not required, a year of biochemistry is desirable for students interested in cell and molecular biology, and training in statistical analysis for all students.

Special consideration is given to students who have conducted undergraduate research and whose recommendations attest to their skills in the laboratory or field and promise in research. Applicants whose scholarly interests are confluent with those of our Graduate Faculty will also receive priority consideration.

### M.S. in Biology

The M.S. program requires at least 24 credits of formal coursework selected in consultation

with the student's Research Committee and six additional credits of thesis are required. A thesis based on original research must be developed and successfully defended in accordance with the rules and regulations of the Graduate School. The maximum expected time in residence is three years.

### Graduate Awards

The current minimum level of support for the 2015-2016 academic year is \$ 26,080. with additional summer support available, currently at the level of \$ 2,500. Given Syracuse's low cost of living, this is a comfortable income. Virtually all department graduate students are supported financially throughout their graduate career. Support typically comes in the form of a teaching assistantship and tuition scholarship during the academic year, with students able to conduct their research full-time during the summer. Students may also be supported by their faculty research advisor's external grants or by Syracuse University Fellowships. Applying to local and national programs for graduate fellowships is strongly encouraged.

### Research Facilities

Research facilities currently include AAALAC-accredited animal facilities, a research greenhouse, and local field experiment sites. Extensive facilities and instrumentation for carrying out modern biological research at the molecular, cellular, organismal, and population levels are available. Library holdings and computing facilities are readily accessible for student and faculty use. Our department is housed in the Life Sciences Complex, a 210,000-square-foot building with dedicated and outstanding research and teaching space for the life sciences.

### Biomedical Forensic Sciences, MS

Forensic Science  
forensics@syr.edu  
(315) 443-0326

### Faculty

Robert Silver, James T. Spencer, Michael B. Sponsler, Kevin Sweder

### M.S. in Biomedical Forensic Sciences

The M.S. in Biomedical Forensic Sciences is intended for students aimed toward bioforensic careers and/or medical school. The degree

program may serve as a post-baccalaureate program for pre-medical students who wish to enhance their academic credentials for admission to medical school. The degree is very well suited for careers in forensic pathology or forensic toxicology. The degree requires 36 credits, as outlined below.

### Admission:

GRE or MCAT, three (3) letters of recommendation and official undergraduate transcripts

### Required Coursework:

#### Gateway Courses - 15 credits required

- **FSC 606 - Advanced Forensic Science 3 credit(s)**
- **FSC 631 - Statistics for Forensic Science 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)** Forensic Biochemical Analysis
- **FSC 651 - Forensic Pathology 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)** or
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**

#### Elective Courses - 21 credits required

At least one \* course required

- **ANT 633 - Human Osteology 3 credit(s)**
- **ANT 634 - Anthropology of Death 3 credit(s)**
- **ANT 636 - Bioarchaeology 3 credit(s)**
- **BCM 675 - Biochemistry I 3 credit(s)**
- **BCM 676 - Biochemistry II 3 credit(s)**
- **BIO 501 - Biology of Cancer 3 credit(s)**
- **BIO 503 - Developmental Biology 3 credit(s)**
- **BIO 565 - Cellular Physiology 3 credit(s)**
- **BIO 607 - Advanced Neuroscience 3 credit(s)**
- **BIO 662 - Molecular Genetics 3 credit(s)**
- **BIO 663 - Molecular Biotechnology 4 credit(s) \***
- **BIO 665 - Molecular Biology Laboratory**

## GRADUATE COURSE CATALOG

- 3 credit(s) \*
- **BIO 675 - Biochemistry Laboratory 4 credit(s) \***
- **CHE 575 - Organic Spectroscopy 3 credit(s)**
- **CHE 612 - Metals in Medicine 3 credit(s)**
- **CHE 614 - Introduction to Medicinal Chemistry 3 credit(s)**
- **CHE 627 - Organic Chemistry of Biological Molecules 3 credit(s)**
- **CHE 635 - Physical Cell Biology 3 credit(s)**
- **CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s) \***
- **CHE 678 - Perspectives in Biochemistry 3 credit(s)**
- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 637 - Medicolegal Death Investigation for Emergency Responders 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)**
- **FSC 644 - Forensic Chemical Analysis 4 credit(s)**
- **FSC 652 - Forensic Mental Health 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**
- **FSC 654 - Nuclear Forensics 3 credit(s)**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**
- **FSC 661 - Firearms and Impression Evidence 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**
- **FSC 663 - Bloodstain Pattern Analysis 3 credit(s)**
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 667 - Forensic Photography 3 credit(s)**
- **FSC 668 - Crime Scene Investigation 3 credit(s)**
- **FSC 671 - Firearms and Impressions Evidence II 3 credit(s)**

- **FSC 690 - Independent Study 1-6 credit(s)**
- IST 602 - Digital Forensics
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 675 - Forensic Linguistics 3 credit(s)**
- **SWK 626 - Persons in Social Context 3 credit(s)**

Total: 36 credits

Degree: Master of Science

### Chemistry, MS

#### Chair:

Jon Zubieta  
1-014 Center for Science and Technology,  
315-443-4109, jazubiet@syr.edu

## Faculty

Philip N. Borer, Mark S. Braiman, Carlos Castañeda, Joseph Chaiken, Arindam Chakraborty, John D. Chisholm, Daniel Clark, James C. Dabrowiak, Robert P. Doyle, 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, Weiwei Zheng, Jon Zubieta

The Department of Chemistry is large enough to provide a broad range of graduate-level courses and research opportunities and yet small enough to foster close working relationships between students and professors. It includes 21 faculty, some 85 graduate students, 5 postdoctoral associates, and technical and secretarial staff. Programs of study include those for both M.S. and Ph.D. degrees, with research offerings in the areas of biochemistry, organic, inorganic, and physical chemistry, as well as those at the interface of these disciplines. An interdisciplinary program in structural biology, biochemistry, and biophysics is also available.

During the first year of graduate study, courses enable students to gain a sound theoretical foundation for their own research investigations. Students are encouraged to become actively involved in research projects as soon as possible.

### M.S. in Chemistry

There are two options for M.S. students. A non-thesis option requires at least 30 credits in graduate chemistry and related courses, passing two of four qualifying breadth examinations, GPA of 3.0 prior to graduation and successful completion of a comprehensive examination or other culminating experience based on the coursework taken by the student. An M.S. degree based in part on a thesis requires a satisfactory master's thesis; at least 18 credits in graduate chemistry courses; a total of 30 graduate credits, including thesis credits; passing two of four qualifying breadth examinations; GPA of 3.0 prior to graduation and passing an oral examination based on the thesis.

### Graduate Awards

The figures associated with various appointments are based on 2015 - 2016 awards.

Syracuse University Graduate Fellowships provide stipends of \$24,310 (PhD) for nine months and tuition scholarships for a total of 30 credits for the academic year.

Graduate Teaching Assistantships, to support graduate study for students with superior qualifications, involve no more than 20 hours of teaching obligations per week during the academic year. They provide a stipend of \$24,152

# GRADUATE COURSE CATALOG

and a graduate tuition scholarship for 24 credits per year.

Summer Teaching Assistantships supporting undergraduate classes offered during the summer sessions, and Summer Research Fellowships offered to graduate students making strong progress in their studies and research, provide stipends from \$1,000 to \$5,000.

Graduate Research Assistantships provide stipends over the academic year and summer from \$19,000.

## Facilities

The Center for Science and Technology near the main quadrangle of the Syracuse University campus provides space and facilities for chemistry faculty and graduate student research: glassblowing and electronic shops; millions of dollars of specialized equipment, including spectrometers, lasers, and other chemical instrumentation; computers and high-speed networks; and an automated X-ray diffractometer for structure determinations.

The Life Sciences Complex, located adjacent to the department of chemistry, provides research and teaching space for the departments of chemistry and biology, and helps foster interactions between the two departments. This building opened in fall 2008.

## Computational Linguistics, MS

### Computational Linguistics

Jaklin Kornfilt  
Kornfilt@syr.edu  
340 HB Crouse  
315-443-5375

## Faculty

Howard A. Blair, Jaklin Kornfilt, Nancy McCracken, Maria Emma Ticio Quesada, Howard Turtle, Bei Yu

Computational Linguistics (also called Natural Language Processing, abbreviated as NLP) is a field of vital importance in the information age. With growing amounts of speech and text data, the demand keeps increasing for automated tools to understand human language and NLP specialists to develop and operate these tools.

In industry, Computational Linguistics techniques are being widely used in search engines, digital libraries, speech recognition systems, and data mining toolkits. The leading data analysis companies like SAS and SPSS all have added text analysis components to their products. Many open-source NLP toolkits have also been available. Companies with large amount of text

data need NLP specialists to develop in-house tools or use off-the-shelf tools to analyze their corpora.

Computational Linguistics also plays a critical role in the latest data-driven scholarship in computational social sciences and digital humanities. Humanist scholars and social scientists are increasingly using large corpora to make robust inferences in their research. Scientific literature, government documents, and user-generated content in social media are just a few examples of commonly used corpora. Students and scholars in sociology, journalism, and communication fields also need to learn to use NLP tools to slice and dice large document collections, identify the main themes and opinions of different parties.

Syracuse University is home to the Syracuse University Forensic and National Security Science Institute (FNSSI), which provides critical leadership for the protection of our nation in the areas of defense and security. The tools and techniques described above are also widely used in national defense and security agencies, as well as law enforcement agencies at the local, national, and international levels. The knowledge of such tools and their development and use is becoming more critical to employees in these fields, which is another reason SU is a strong candidate for a computational linguistics program.

### Requirements:

In order to receive the Masters of Science in Computational Linguistics, students must complete at least 36-credit hours of coursework, which may include up to 6 credits earned through an internship, and earn a cumulative grade point average of at least 3.0.

Nine courses (five 3-credit LIN courses in linguistics, two 3 credit CPS courses in computational science, and two 3 credit IST courses in information studies) plus a 3 or 6 credit IST internship, all offered on a yearly basis, will be required of all those interested in receiving the degree. The first of these courses, LIN 601 - Introductory Linguistic Analysis, will provide essential grounding in the mechanics of language, e.g. the sound system, word structure, sentence structure, and meaning. Through the use of examples from a range of languages, students will learn about similarities and differences across languages, which will allow them to understand the various possible manifestations of natural language. LIN 641 - Syntactic Analysis, LIN 651 - Morphological Analysis, and LIN 611 - Semantics of Human Languages, build on the principles learned in LIN 601 to provide students with a deeper understanding of the three areas of linguistics that are most important to the field of computational linguistics. LIN 741 - Advanced Syntax, builds upon the principles of syntactic

analysis which are introduced in LIN 641.

Two additional required courses are in information studies: The foundational courses IST 657 - Basics of Information Retrieval Systems and IST 664 - Natural Language Processing/CIS 668 - Natural Language Processing. A third required course is the internship course IST 971. This internship can be taken for three or six credits, if taken for three credits, an elective from the courses below for three credits needs to be added. IST 657 - Basics of Information Retrieval Systems, will provide fundamental knowledge in information representation, information seeking behavior, query and document matching, relevance measure, search interface design, and information retrieval system evaluation. IST 664 - Natural Language Processing, introduces concepts and methods in processing text at syntactic, semantic, and pragmatic levels. It covers techniques of tokenizing, sentence splitting, part-of-speech tagging, and parsing.

Two additional required courses are in computational science CPS 681 - Explorations in Computing and Programming and CPS 688 - Algorithms for Computational Journalism and Linguistics. Students who demonstrate sufficient knowledge in these areas may test out of the courses and replace them with elective courses from the list below.

### Elective Courses.

The courses that follow are generally offered yearly. Students can select among them in completing the remaining credits required for completion of the degree, based on professional need and academic interest. Substitutions may be made with the permission of the director of the degree program.

- **CIS 666 - Expert Systems 3 credit(s) or**
- **CSE 683 - Expert Systems 3 credit(s)**
- **CIS 667 - Introduction to Artificial Intelligence 3 credit(s) or**
- **CSE 684 - Introduction to Artificial Intelligence 3 credit(s)**
- **CIS 626 - Theoretical Foundations of Computer Science 3 credit(s)**
- **CIS 623 - Structured Programming and Formal Methods 3 credit(s)**
- **CSD 616 - Introduction to Applied Phonetics 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 612 - Pragmatics: Meaning and Context 3 credit(s)**
- **PHI 651 - Logic and Language 3**

# GRADUATE COURSE CATALOG

## credit(s)

- **IST 631 - Theory of Classification and Subject Representation 3 credit(s)**
- **IST 638 - Indexing and Abstracting Systems and Services 3 credit(s)**
- **IST 649 - Human Interaction with Computers 3 credit(s)**
- **IST 565 - Data Mining 3 credit(s)**
- **IST 736 - Text Mining 3 credit(s)**

## Admission requirements:

- Completed Syracuse University Graduate School Application
- Resume
- Personal Statement - include background and interest in the program
- Official transcripts - from graduate and undergraduate studies
- 3 Letters of Recommendation
- Application Fee
- GRE Scores: Required
- TOEFL Scores: 580 (written test), 237 (computer-based test), 92-93 (internet-based test) minimum for unconditional admissions

## Additional Information

Partial tuition scholarships may be available. Please contact the Director for further information.

## Creative Writing, MFA

### Contact:

Sarah Harwell, Associate Director, 420 Hall of Languages, scharwel@syr.edu, 315-443-9480

## Faculty

Michael Burkard, Jonathan Dee, Arthur Flowers, Brooks Haxton, Mary Karr, Christopher Kennedy, George Saunders, Bruce Smith, Dana Spiotta

The Syracuse program in creative writing has long been regarded as one of the best in the country. Each year six students are admitted in poetry and six in fiction to work closely in small workshops with an accomplished group of writers. Coursework includes a strong emphasis on the study of literature. Six semesters are usually needed to complete the M.F.A.

Submit online Graduate Application by DECEMBER 15th. <https://apply.embark.com/grad/syracuse/37/>

- **FICTION APPLICANTS:** UPLOAD your 20 page maximum writing sample with your EMBARK application by DECEMBER 15. In addition to uploading your fiction writing sample to your online application through Embark, please mail in one hard copy as well by December 15 to: Sarah Harwell, Associate Director of Creative Writing, Department of English, Syracuse University, 401 Hall of Languages, Syracuse NY 13244-1170.
- **POETRY APPLICANTS:** UPLOAD your 10-12 POEMS with EMBARK application by December 15. Do NOT mail in your poetry writing sample.

Admission is based primarily on the writing sample, but also upon the academic record. Thus, letters of recommendation should address not only the student's creative work, but also his or her general preparedness for advanced graduate study. Likewise in their personal statements on the application for graduate study, students should state their reasons for pursuing an M.F.A. in creative writing as well as describe their own backgrounds as writers.

Requirements Candidates must complete 48 credits of coursework, which includes 9 credits of workshop, a minimum of 9 credits in forms courses, a 3-credit third-year essay seminar, 12 to 15 credits in other English department courses, 6 to 9 credits of electives outside the department, and 6 credits for the preparation of the thesis (a collection of poems or stories or a novel).

The Department of English offers a range of graduate programs: the M.A. in English, the M.F.A. in Creative Writing, and the Ph.D. in English. The department welcomes students who plan to become writers and scholar/teachers, and it makes a serious effort to tailor its programs to each student's interests. Classes are small, usually from 5 to 15 students, and there is ample opportunity for independent study and supervised research.

One of the department's greatest strengths is its faculty, which includes distinguished scholar-teachers and internationally known writers.

The graduate programs in English have in the recent past been reconfigured. Although students are asked to attain some coverage of literary periods, genres, and major authors, the department gives substantial attention to those modes of theoretical inquiry that have disrupted and enlivened the study of literature in recent years. Our current course offerings, therefore, represent both traditional approaches to English and important work in contemporary theory and cultural studies.

For more information about our graduate programs, visit our department web site at [english.syr.edu](http://english.syr.edu).

## Graduate Awards

Teaching assistantships, include tuition scholarships for nine credits per semester (plus six credits in the summer) as well as stipends from \$14,034 to \$14,951. New teaching assistants at the M.A. level are assigned to courses offered by the Writing Program. Teaching assistants have full responsibility for three sections a year, are expected to attend regular staff meetings and workshops, and participate in a coordinating group. There is also an ongoing mentorship and review of each teaching assistant's performance as a teacher. New teaching assistants take a teaching practicum (WRT 670) closely related to their classroom duties.

Beginning Ph.D. students serve as teaching assistants in undergraduate lecture courses taught by full-time faculty in the English Department for two to three years. They receive ongoing mentorship and faculty review of their performance.

Advanced Ph.D. students teach independent courses of their own design in the English department for one or two years, and participate in the Future Professoriate Project. This project offers mentored teaching and participation in teaching seminars every semester. Students who fulfill all the requirements receive at graduation a certificate in university teaching.

The department also competes for University Fellowships, awarded annually to outstanding applicants, and it offers six one-year creative writing fellowships. All fellowships include tuition scholarships for full-time study as well as stipends from \$12,660 to \$21,170.

M.F.A., M.A., and Ph.D. applicants should apply for financial aid as early as possible, preferably during the fall semester, but no later than January 9.

## M.F.A. in Creative Writing

The Syracuse program in creative writing has long been regarded as one of the best in the country. Each year six students are admitted in poetry and six in fiction to work closely in small workshops with an accomplished group of writers. Coursework includes a strong emphasis on the study of literature. Six semesters are usually needed to complete the M.F.A.

Applicants must upload a sample of fiction or poetry to their online application through Embark no later than December 15. , as well as complete the online graduate application for graduate study. Admission is based primarily on this sample, but also upon the academic record. Thus, letters of recommendation should address not only the student's creative work, but also his or her general preparedness for advanced graduate

## GRADUATE COURSE CATALOG

study. Likewise in their personal statements on the application for graduate study, students should state their reasons for pursuing an M.F.A. in creative writing as well as describe their own backgrounds as writers. The writing sample (consisting of either a set of 10-12 poems or 20 pages, maximum, for fiction writing) Fiction applicants are to also, in addition to uploading their writing sample, send one hard copy to the Associate Director of Creative Writing, Syracuse University, 401 Hall of Languages, Syracuse NY 13244-1170.

### Earth Sciences, MA

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

Graduate study in the Department of Earth Sciences offers students opportunities for field-based geological and geophysical research worldwide. Ongoing research in the Department is focused primarily in the areas of environmental geology/global change and tectonics/crustal evolution-two of the most rapidly developing areas of the earth sciences. The Department is housed in the William B. Heroy Geology Laboratory, which contains state-of-the-art analytical and computing facilities, modern well-equipped teaching spaces, and a dedicated Earth Sciences library. All of the faculty are engaged in research and teaching.

The Department typically has a combination of students pursuing either the M.S. or Ph.D. degree. Several of our faculty-led research projects are large collaborative, multi-institutional, multi-national programs that afford our graduate students opportunities to work in diverse parts of the world with teams of internationally recognized scholars. Department faculty and graduate students are currently pursuing field studies world wide.

### Admission

Incoming students are expected to have two semesters of the following courses: calculus, chemistry, and physics or biology. In addition, incoming students need at least three distribution courses in the Earth Sciences, such as: paleobiology, sedimentology, mineralogy, structural geology, tectonics, geochemistry, geophysics, climatology, paleoceanography, paleoclimatology,

marine geology, and/or hydrogeology. Students are strongly encouraged to have participated in an approved summer field course or comparable field experience. Substitutions may be granted upon petition of the Department.

### Degree Programs

The Department offers programs of graduate study leading to the M.A., M.S., and Ph.D. Minimum requirements for each degree are an average GPA of 3.0 in major subjects and an overall average of 2.8.

Students who wish to continue graduate study toward a Ph.D. in Earth Sciences following a master's degree must submit a Syracuse University Graduate School application form, including letters of reference, to the Department.

### M.A. in Earth Sciences

Thirty credits are required. At least 15 of these must be at or above the 600 level. The student is required to pass a comprehensive written examination, but no thesis is required.

### Graduate Awards

Graduate students are expected to pursue their studies energetically and to complete their advanced degree work without undue delay. Financial support typically will be given to a student for four semesters at the master's level or eight semesters in the Ph.D. program.

Graduate Scholarships Awarded to students with superior qualifications, provide, in most cases, full tuition for academic year.

### Graduate Teaching Assistantships:

Offered to some Graduate Scholarship recipients; no more than an average of 20 hours of work per week; 8.5 months; stipend in addition to tuition scholarship for up to 24 credits per year as needed.

### Graduate Research Assistantships:

Offered to some Graduate Scholarship recipients; no more than an average of 20 hours per week; 8.5 to 12 months; stipends variable in addition to tuition scholarship for up to 24 credits per year as needed.

### Syracuse University Graduate Fellowships:

Stipend for 8.5 months of full-time study; tuition scholarship for 15 credits per semester for a total of 30 for the academic year.

### Department Research Support:

The Department has various funds available to support graduate student travel and research.

### Facilities

The Heroy Geology Laboratory provides well-equipped laboratories and student study research offices. The Department houses state-of-the-art workstation-based seismic data processing, GIS, and image-processing facilities; first-class laboratories for U/Pb geochronology, 40Ar/39Ar thermochronology, light stable isotope geochemistry, (U-Th)/He dating, and fission track thermochronology. The Department also has a range of sample preparation facilities, clean labs, two electronmicroscopes for imaging and elemental analysis, a direct current plasmaspectrometer, ion-chromatograph and an array of field geophysical gear. A 16-unit Windows- and Macintosh-based computer cluster is available to all Department members. The Department also houses a dedicated 28,844 volume research library.

The University's location is central to diverse geologic terrain including the classic Paleozoic sedimentary rocks of the Appalachian plateau, the complex structures and metamorphic rocks of the Adirondack Mountains, the Canadian Shield, and Quaternary sequences in the Finger Lakes. The scope of departmental research is international.

### Earth Sciences, MS

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

Graduate study in the Department of Earth Sciences offers students opportunities for field-based geological and geophysical research worldwide. Ongoing research in the Department is focused primarily in the areas of environmental

## GRADUATE COURSE CATALOG

geology/global change and tectonics/crustal evolution-two of the most rapidly developing areas of the earth sciences. The Department is housed in the William B. Heroy Geology Laboratory, which contains state-of-the-art analytical and computing facilities, modern well-equipped teaching spaces, and a dedicated Earth Sciences library. All of the faculty are engaged in research and teaching.

The Department typically has a combination of students pursuing either the M.S. or Ph.D. degree. Several of our faculty-led research projects are large collaborative, multi-institutional, multi-national programs that afford our graduate students opportunities to work in diverse parts of the world with teams of internationally recognized scholars. Department faculty and graduate students are currently pursuing field studies world wide.

### Admission

Incoming students are expected to have two semesters of the following courses: calculus, chemistry, and physics or biology. In addition, incoming students need at least three distribution courses in the Earth Sciences, such as: paleobiology, sedimentology, mineralogy, structural geology, tectonics, geochemistry, geophysics, climatology, paleoceanography, paleoclimatology, marine geology, and/or hydrogeology. Students are strongly encouraged to have participated in an approved summer field course or comparable field experience. Substitutions may be granted upon petition of the Department.

### Degree Programs

The Department offers programs of graduate study leading to the M.A., M.S., and Ph.D. Minimum requirements for each degree are an average GPA of 3.0 in major subjects and an overall average of 2.8.

Students who wish to continue graduate study toward a Ph.D. in Earth Sciences following a master's degree must submit a Syracuse University Graduate School application form, including letters of reference, to the Department.

### M.S. in Earth Sciences

Thirty credits are required. Six of these are in thesis credit and 24 credits are for graduate course work. M.S. candidates must pass an oral defense of their thesis.

### Graduate Awards

Graduate students are expected to pursue their studies energetically and to complete their advanced degree work without undue delay. Financial support typically will be given to a student for four semesters at the master's level or eight semesters in the Ph.D. program.

Graduate Scholarships Awarded to students with superior qualifications, provide, in most cases, full tuition for academic year.

### Graduate Teaching Assistantships:

Offered to some Graduate Scholarship recipients; no more than an average of 20 hours of work per week; 8.5 months; stipend in addition to tuition scholarship for up to 24 credits per year as needed.

### Graduate Research Assistantships:

Offered to some Graduate Scholarship recipients; no more than an average of 20 hours per week; 8.5 to 12 months; stipends variable in addition to tuition scholarship for up to 24 credits per year as needed.

### Syracuse University Graduate Fellowships:

Stipend for 8.5 months of full-time study; tuition scholarship for 15 credits per semester for a total of 30 for the academic year.

### Department Research Support:

The Department has various funds available to support graduate student travel and research.

### Facilities

The Heroy Geology Laboratory provides well-equipped laboratories and student study research offices. The Department houses state-of-the-art workstation-based seismic data processing, GIS, and image-processing facilities; first-class laboratories for U/Pb geochronology, 40Ar/39Ar thermochronology, light stable isotope geochemistry, (U-Th)/He dating, and fission track thermochronology. The Department also has a range of sample preparation facilities, clean labs, two electronmicroscopes for imaging and elemental analysis, a direct current plasmaspectrometer, ion-chromatograph and an array of field geophysical gear. A 16-unit Windows- and Macintosh-based computer cluster is available to all Department members. The Department also houses a dedicated 28,844 volume research library.

The University's location is central to diverse geologic terrain including the classic Paleozoic

sedimentary rocks of the Appalachian plateau, the complex structures and metamorphic rocks of the Adirondack Mountains, the Canadian Shield, and Quaternary sequences in the Finger Lakes. The scope of departmental research is international.

### English, MA

#### Contact:

Claudia Klaver, Director of Graduate Studies, 401 Hall of Languages, 315-443-6133; or Christopher Kennedy, Director of Creative Writing, 401 Hall of Languages, 315-443-3755.

### Faculty

Crystal Bartolovich, Dorri Beam, Michael Burkard, Dympna Callaghan, Manan Desai, 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, 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 a range of graduate programs: the M.A. in English, the M.F.A. in Creative Writing, and the Ph.D. in English. The department welcomes students who plan to become writers and scholar/teachers, and it makes a serious effort to tailor its programs to each student's interests. Classes are small, usually from 5 to 15 students, and there is ample opportunity for independent study and supervised research.

One of the department's greatest strengths is its faculty, which includes distinguished scholar-teachers and internationally known writers.

The graduate programs in English ask students to attain some coverage of literary periods, genres, and major authors, while also devoting substantial attention to those modes of theoretical inquiry that have disrupted and enlivened the study of literature in recent years. To that end our current course offerings represent both traditional approaches to English and important work in contemporary theory and cultural studies.

For more information about our graduate programs, degree and program requirements, course offerings, and specific application deadline dates, visit our department web site at <http://english.syr.edu/>

### M.A. in English

This master's degree is seen as a step toward the doctorate; therefore the department welcomes applicants who wish to go on to the Ph.D.

## GRADUATE COURSE CATALOG

Applicants should have a strong undergraduate background, if not a major, in English. In their intellectual statements on the application for graduate study, students should define their intellectual projects and state their reasons for pursuing an advanced degree.

The department has particular strengths in early modern literature, 18th and 19th-century British studies, American studies, and film, but includes other areas as well. The faculty all share a strong interest in literary history and forms, critical theory, and cultural studies. Four semesters are usually required to complete the M.A. Approximately four students are admitted each year.

### Courses:

The minimum requirement for the degree is 30 credits of coursework in English (ENG 630/ENG 730) and successful completion of the dossier. ENG 631 is a required part of the 30 credits. The 30 credits of coursework required for the degree must be taken in English at the 630 and 730 level and must include three 730-level courses. Students may take additional courses in English or in other departments above and beyond the minimum credits required for the degree.

### Graduate Awards

Teaching assistantships, include tuition scholarships for nine credits per semester (plus six credits in the summer) as well as stipends from \$14,535 to \$15,479. New teaching assistants at the M.A. level are assigned to courses offered by the Writing Program. Teaching assistants have full responsibility for three sections a year, are expected to attend regular staff meetings and workshops, and participate in a coordinating group. There is also an ongoing mentorship and review of each teaching assistant's performance as a teacher. New teaching assistants take a teaching practicum (WRT 670) closely related to their classroom duties.

Beginning Ph.D. students serve as teaching assistants in undergraduate lecture courses taught by full-time faculty in the English Department for two to three years. They receive ongoing mentorship and faculty review of their performance.

Advanced Ph.D. students teach independent courses of their own design in the English department for one or two years, and participate in the Future Professoriate Project. This project offers mentored teaching and participation in teaching seminars every semester. Students who fulfill all the requirements receive at graduation a certificate in university teaching.

The department also competes for University

Fellowships, awarded annually to outstanding applicants, and it offers 10 one-year creative writing fellowships. All fellowships include tuition scholarships for full-time study as well as stipends from \$14,250 to \$23,830.

### Forensic Science, MS

Forensic Science  
forensics@syr.edu  
(315) 443-0326

### Faculty

Robert Silver, James T. Spencer, Michael B. Sponsler, Kevin Sweder

The Masters of Science in Forensic Science is a 36 credit hour program of study designed to offer students both a global perspective and an opportunity for in-depth study at the graduate level in forensic science. The degree provides students with a fundamental understanding of the concepts and principles involved in 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 on these fields and it is only through an understanding of these critical scientific concepts that those in the legal system may be effective in criminal investigations and judicial proceedings. A graduate M.S. degree in Forensic Science offers a strong complement for people interested in a focus on criminal justice as related to major areas of study such as anthropology, biology, chemistry, physics, geology, psychology, engineering, journalism, education, medicine, and law.

Students can choose to enroll in the advanced, general or nuclear forensics track.

### Program Requirements

#### Advanced Track

##### I. Gateway Courses - 16 Credits Required

- **FSC 606 - Advanced Forensic Science 3 credit(s)**
- **FSC 631 - Statistics for Forensic Science 3 credit(s)**
- **FSC 632 - Research and Career Resources 3 credit(s)**
- **FSC 633 - Quality Assurance and Ethics 3 credit(s)**
- **FSC 644 - Forensic Chemical Analysis 4 credit(s)**

##### II. Electives - 17 Credits Required

At least 9 elective credits must be a part of a designated concentration. Student-specific concentrations, potentially including FSC 690, may be allowed by petition.

#### Biology Concentration

- **BCM 675 - Biochemistry I 3 credit(s)**
- **BCM 676 - Biochemistry II 3 credit(s)**
- **BCM 678 - Perspectives in Biochemistry 3 credit(s)**
- **BIO 662 - Molecular Genetics 3 credit(s)**
- **BIO 663 - Molecular Biotechnology 4 credit(s)**
- **BIO 665 - Molecular Biology Laboratory 3 credit(s)**
- **BIO 675 - Biochemistry Laboratory 4 credit(s)**
- **CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)**

#### Crime Scene Investigation Concentration

- **FSC 637 - Medicolegal Death Investigation for Emergency Responders 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**
- **FSC 663 - Bloodstain Pattern Analysis 3 credit(s)**
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 667 - Forensic Photography 3 credit(s)**
- **FSC 668 - Crime Scene Investigation 3 credit(s)**

#### Forensic Anthropology Concentration

- **ANT 600 - Selected Topics 1-6 credit(s)**  
Reading the Body
- **ANT 633 - Human Osteology 3 credit(s)**
- **ANT 634 - Anthropology of Death 3 credit(s)**
- **ANT 636 - Bioarchaeology 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**

#### Forensic Chemistry Concentration

- **CHE 575 - Organic Spectroscopy 3 credit(s)**



## GRADUATE COURSE CATALOG

- **CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s)**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**

### Impressions Evidence Concentration

- **FSC 661 - Firearms and Impression Evidence 3 credit(s)**
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 671 - Firearms and Impressions Evidence II 3 credit(s)**

### Jurisprudence Concentration

- **LAW 604 - Criminal Law 3 credit(s)**
- **LAW 708 - Constitutional Criminal Procedure - Investigative 3 credit(s)**
- **LAW 718 - Evidence 4 credit(s)**
- **LAW 719 - Law and Psychology 3 credit(s)**
- **LAW 759 - Computer Crimes 3 credit(s)**
- LAW 781 - Forensic Evidence

### Linguistics Concentration

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 675 - Forensic Linguistics 3 credit(s)**

### Medicolegal Death Investigation Concentration

- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 651 - Forensic Pathology 3 credit(s)**

### National Security Science Concentration

- **FSC 654 - Nuclear Forensics 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)** Countering WMDs
- **NUC 520 - Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation 3 credit(s)**

### Psychiatry & Behavioral Science Concentration

- **FSC 652 - Forensic Mental Health 3 credit(s)**
- **PSY 674 - Advanced Social Psychology 3 credit(s)**
- **SWK 626 - Persons in Social Context 3 credit(s)**
- **SWK 724 - Psychopathology 3 credit(s)**

### Regulatory Science Concentration

- FSC 656 - Regulation and Compliance
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**

### Toxicology Concentration

- **FSC 651 - Forensic Pathology 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**

### Full Electives List

- **ANT 600 - Selected Topics 1-6 credit(s)**  
Reading the Body
- **ANT 633 - Human Osteology 3 credit(s)**
- **ANT 634 - Anthropology of Death 3 credit(s)**
- **ANT 636 - Bioarchaeology 3 credit(s)**
- **BCM 675 - Biochemistry I 3 credit(s)**
- **BCM 676 - Biochemistry II 3 credit(s)**
- **BCM 678 - Perspectives in Biochemistry 3 credit(s)**
- **BIO 662 - Molecular Genetics 3 credit(s)**
- **BIO 663 - Molecular Biotechnology 4 credit(s)**
- **BIO 665 - Molecular Biology Laboratory 3 credit(s)**
- **BIO 675 - Biochemistry Laboratory 4 credit(s)**
- **CHE 575 - Organic Spectroscopy 3 credit(s)**
- **CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s)**
- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 637 - Medicolegal Death**

### Investigation for Emergency Responders 3 credit(s)

- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)**
- **FSC 651 - Forensic Pathology 3 credit(s)**
- **FSC 652 - Forensic Mental Health 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**
- **FSC 654 - Nuclear Forensics 3 credit(s)**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**
- **FSC 661 - Firearms and Impression Evidence 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**
- **FSC 663 - Bloodstain Pattern Analysis 3 credit(s)**
- FSC 664 - Forensic Biochemical Analysis
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 667 - Forensic Photography 3 credit(s)**
- **FSC 668 - Crime Scene Investigation 3 credit(s)**
- **FSC 671 - Firearms and Impressions Evidence II 3 credit(s)**
- **FSC 690 - Independent Study 1-6 credit(s)**
- IST 602 - Digital Forensics
- **LAW 604 - Criminal Law 3 credit(s)**
- **LAW 708 - Constitutional Criminal Procedure - Investigative 3 credit(s)**
- **LAW 718 - Evidence 4 credit(s)**
- **LAW 719 - Law and Psychology 3 credit(s)**
- **LAW 759 - Computer Crimes 3 credit(s)**
- LAW 781 - Forensic Evidence
- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 675 - Forensic Linguistics 3 credit(s)**
- **NUC 520 - Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation 3 credit(s)**

## GRADUATE COURSE CATALOG

- **PSY 674 - Advanced Social Psychology 3 credit(s)**
- **SWK 724 - Psychopathology 3 credit(s)**
- **SWK 626 - Persons in Social Context 3 credit(s)**

### III. Research - 3 credits required

Each student is required to participate in original research, write a detailed report of publishable quality, and successfully defend the results in front of a committee of three faculty members in a public seminar. This research should be conducted as part of an on- or off-campus research project, internship, or independent study. Additional credits of independent study or internship may be used to satisfy elective credit or concentration credit by petition.

- **FSC 690 - Independent Study 1-6 credit(s)**

### General Track

#### I. Gateway Courses - 12 Credits Required

- **FSC 606 - Advanced Forensic Science 3 credit(s)**
- **FSC 631 - Statistics for Forensic Science 3 credit(s)**
- **FSC 632 - Research and Career Resources 3 credit(s)**
- **FSC 633 - Quality Assurance and Ethics 3 credit(s)**

#### II. Electives - 21 Credits Required

At least 9 elective credits must be a part of a designated concentration. Student-specific concentrations, potentially including FSC 690, may be allowed by petition.

##### Biology Concentration

- **BCM 675 - Biochemistry I 3 credit(s)**
- **BCM 676 - Biochemistry II 3 credit(s)**
- **BCM 678 - Perspectives in Biochemistry 3 credit(s)**
- **BIO 662 - Molecular Genetics 3 credit(s)**
- **BIO 663 - Molecular Biotechnology 4 credit(s)**
- **BIO 665 - Molecular Biology Laboratory 3 credit(s)**
- **BIO 675 - Biochemistry Laboratory 4 credit(s)**

- **CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)** Forensic Biochemical Analysis

##### Crime Scene Investigation Concentration

- **FSC 637 - Medicolegal Death Investigation for Emergency Responders 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**
- **FSC 663 - Bloodstain Pattern Analysis 3 credit(s)**
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 667 - Forensic Photography 3 credit(s)**
- **FSC 668 - Crime Scene Investigation 3 credit(s)**

##### Forensic Anthropology Concentration

- **ANT 600 - Selected Topics 1-6 credit(s)** Reading the Body
- **ANT 633 - Human Osteology 3 credit(s)**
- **ANT 634 - Anthropology of Death 3 credit(s)**
- **ANT 636 - Bioarchaeology 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**

##### Forensic Chemistry Concentration

- **CHE 575 - Organic Spectroscopy 3 credit(s)**
- **CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s)**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**

##### Impressions Evidence Concentration

- **FSC 661 - Firearms and Impression Evidence 3 credit(s)**
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 671 - Firearms and Impressions Evidence II 3 credit(s)**

##### Jurisprudence Concentration

- **LAW 604 - Criminal Law 3 credit(s)**
- **LAW 708 - Constitutional Criminal Procedure - Investigative 3 credit(s)**
- **LAW 718 - Evidence 4 credit(s)**

- **LAW 719 - Law and Psychology 3 credit(s)**
- **LAW 759 - Computer Crimes 3 credit(s)**
- **LAW 781 - Forensic Evidence**

##### Linguistics Concentration

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 675 - Forensic Linguistics 3 credit(s)**

##### Medicolegal Death Investigation Concentration

- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 651 - Forensic Pathology 3 credit(s)**

##### National Security Science Concentration

- **FSC 654 - Nuclear Forensics 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)** Countering WMDs
- **NUC 520 - Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation 3 credit(s)**

##### Psychiatry & Behavioral Science Concentration

- **FSC 652 - Forensic Mental Health 3 credit(s)**
- **PSY 674 - Advanced Social Psychology 3 credit(s)**
- **SWK 626 - Persons in Social Context 3 credit(s)**
- **SWK 724 - Psychopathology 3 credit(s)**

##### Regulatory Science Concentration

- **FSC 656 - Regulation and Compliance**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**

##### Toxicology Concentration

- **FSC 651 - Forensic Pathology 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**

## GRADUATE COURSE CATALOG

- **FSC 657 - Principles of Human Toxicology 3 credit(s)**

### Full Electives List

- **ANT 600 - Selected Topics 1-6 credit(s)**  
Reading the Body
- **ANT 633 - Human Osteology 3 credit(s)**
- **ANT 634 - Anthropology of Death 3 credit(s)**
- **ANT 636 - Bioarchaeology 3 credit(s)**
- **BCM 675 - Biochemistry I 3 credit(s)**
- **BCM 676 - Biochemistry II 3 credit(s)**
- **BIO 662 - Molecular Genetics 3 credit(s)**
- **BIO 663 - Molecular Biotechnology 4 credit(s)**
- **BIO 665 - Molecular Biology Laboratory 3 credit(s)**
- **BIO 675 - Biochemistry Laboratory 4 credit(s)**
- **CHE 575 - Organic Spectroscopy 3 credit(s)**
- **CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s)**
- **BCM 677 - Proteins and Nucleic Acids Lab 3 credit(s)**
- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 637 - Medicolegal Death Investigation for Emergency Responders 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)**
- **FSC 651 - Forensic Pathology 3 credit(s)**
- **FSC 652 - Forensic Mental Health 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**
- **FSC 654 - Nuclear Forensics 3 credit(s)**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**
- **FSC 661 - Firearms and Impression Evidence 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**
- **FSC 663 - Bloodstain Pattern Analysis 3 credit(s)**

- FSC 664 - Forensic Biochemical Analysis
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 667 - Forensic Photography 3 credit(s)**
- **FSC 668 - Crime Scene Investigation 3 credit(s)**
- **FSC 671 - Firearms and Impressions Evidence II 3 credit(s)**
- **FSC 690 - Independent Study 1-6 credit(s)**
- IST 602 - Digital Forensics
- **LAW 604 - Criminal Law 3 credit(s)**
- **LAW 708 - Constitutional Criminal Procedure - Investigative 3 credit(s)**
- **LAW 718 - Evidence 4 credit(s)**
- **LAW 719 - Law and Psychology 3 credit(s)**
- **LAW 759 - Computer Crimes 3 credit(s)**
- LAW 781 - Forensic Evidence
- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 675 - Forensic Linguistics 3 credit(s)**
- **NUC 520 - Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation 3 credit(s)**
- **PSY 674 - Advanced Social Psychology 3 credit(s)**
- **SWK 724 - Psychopathology 3 credit(s)**
- **SWK 626 - Persons in Social Context 3 credit(s)**
- **WGS 626 - Persons in Social Context 3 credit(s)**

### III. Internship or Independent Study Research - at least 3 credits required

(additional credits maybe used to satisfy elective requirements).

- **FSC 690 - Independent Study 1-6 credit(s)**

### Nuclear Forensics Track

### I. Gateway Courses - 22 Credits

### Required

- **FSC 606 - Advanced Forensic Science 3 credit(s)**
- **FSC 631 - Statistics for Forensic Science 3 credit(s)**
- **FSC 632 - Research and Career Resources 3 credit(s)**
- **FSC 633 - Quality Assurance and Ethics 3 credit(s)**
- **FSC 644 - Forensic Chemical Analysis 4 credit(s)**
- **FSC 654 - Nuclear Forensics 3 credit(s)**
- **NUC 520 - Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation 3 credit(s)**

### II. Elective Courses - 5 credits required

- **ANT 600 - Selected Topics 1-6 credit(s)**  
Reading the Body
- **ANT 633 - Human Osteology 3 credit(s)**
- **ANT 634 - Anthropology of Death 3 credit(s)**
- **ANT 636 - Bioarchaeology 3 credit(s)**
- **BCM 675 - Biochemistry I 3 credit(s)**
- **BCM 676 - Biochemistry II 3 credit(s)**
- **BIO 662 - Molecular Genetics 3 credit(s)**
- **BIO 663 - Molecular Biotechnology 4 credit(s)**
- **BIO 665 - Molecular Biology Laboratory 3 credit(s)**
- **BIO 675 - Biochemistry Laboratory 4 credit(s)**
- **CHE 575 - Organic Spectroscopy 3 credit(s)**
- **CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s)**
- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 637 - Medicolegal Death Investigation for Emergency Responders 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)**
- **FSC 651 - Forensic Pathology 3 credit(s)**

## GRADUATE COURSE CATALOG

- **FSC 652 - Forensic Mental Health 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**
- **FSC 654 - Nuclear Forensics 3 credit(s)**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**
- **FSC 661 - Firearms and Impression Evidence 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**
- **FSC 663 - Bloodstain Pattern Analysis 3 credit(s)**
- FSC 664 - Forensic Biochemical Analysis
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 667 - Forensic Photography 3 credit(s)**
- **FSC 668 - Crime Scene Investigation 3 credit(s)**
- **FSC 671 - Firearms and Impressions Evidence II 3 credit(s)**
- **FSC 690 - Independent Study 1-6 credit(s)**
- IST 602 - Digital Forensics
- **LAW 604 - Criminal Law 3 credit(s)**
- **LAW 708 - Constitutional Criminal Procedure - Investigative 3 credit(s)**
- **LAW 718 - Evidence 4 credit(s)**
- **LAW 719 - Law and Psychology 3 credit(s)**
- **LAW 759 - Computer Crimes 3 credit(s)**
- LAW 781 - Forensic Evidence
- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 675 - Forensic Linguistics 3 credit(s)**
- **NUC 520 - Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation 3 credit(s)**
- **PSY 674 - Advanced Social Psychology 3 credit(s)**
- **SWK 724 - Psychopathology 3 credit(s)**
- **SWK 626 - Persons in Social Context 3 credit(s)**

III. Internship with Research - 9 credits at Brookhaven National Lab. required

Each student is required to participate in original research, write a detailed report of publishable quality, and successfully defend the results in front of a committee of three faculty members in a public seminar. This research will be conducted as part of the Brookhaven internship. Additional credits of independent study or internship may be used to satisfy elective credit by petition.

- **FSC 690 - Independent Study 1-6 credit(s)**

### Comments

1. Law courses are open to MS in forensic science students by consent of the instructor. Although these courses are usually held once a year (Evidence is offered every semester), the law college cannot guarantee that these courses will be offered every year, but instead offered irregularly on a demand basis within the law school. MS students should also be aware that the law school's calendar is somewhat different from the rest of the campus and students enrolled in LAW courses will be expected to take exams and complete work based upon the law college's academic schedule (although the Law College exempts non-law students from the application of their grading curves).

## French and Francophone Studies, MA

### Contact:

Hope Glidden  
Languages, Literatures, and Linguistics  
340 H.B. Crouse  
315-443-2175.

### Faculty

Hope Glidden, Jean Jonassaint, Amy S. Wyngaard

### Major Requirements

To earn the M.A. in French and Francophone studies, a student is required to complete a minimum of 30 credits of coursework. As a final exercise M.A. candidates must choose one of the following options:

1. An oral defense of a dossier of three term papers (one hour) or
2. A written examination (two sessions of three hours each)

If they choose option 1, they will be required to present and defend a dossier consisting of three

term papers, revised by the student and approved by each faculty member for whom they were originally written.

The examination is normally administered during the first two weeks of December or the last two weeks of April. All students are required to take the examination no later than one semester after they have completed 30 credits of coursework. All students planning to take the oral examination must consult with their graduate advisor concerning the date of their examination.

## Linguistic Studies, MA

### Director

Jaklin Kornfilt,  
340 H.B. Crouse,  
315-443-5375

### Faculty

Tej K. Bhatia, Amanda Brown, Richard W. Buttny, Kevan Edwards, Gerald R. Greenberg, Diane Grimes, Jaklin Kornfilt, Elizabeth D. Liddy, Amy Lutz, Linda Milosky, Amardo Rodriguez, Robert A. Rubinstein, Robert Van Gulick, Susan S. Wadley, Bei Yu

This program provides the student with intensive and advanced education in linguistics and language-related study. The student works with the concentration advisor in one of six concentration areas:

1. Information Representation and Retrieval;
2. Language Acquisition;
3. Language, Culture, and Society;
4. Linguistic Theory;
5. Logic and Language; and
6. Teaching languages (English Language Teaching/Foreign Language Teaching)

### Program Requirements

The M.A. degree requires 30 credits of graduate coursework. 12 credits come from the following Core courses: LIN 601 - Introductory Linguistic Analysis, LIN 631 - Phonological Analysis, LIN 641 - Syntactic Analysis, LIN 571 - Topics in Sociolinguistics. The remaining 18 credits come from one of the six concentration areas with the approval of the advisor for that concentration area. All four Core courses and all required courses within a student's concentration area must be completed with a grade of B or better; all other courses must be completed with a grade of B- or better. A thesis may be substituted for 6 credits of course work subject to the approval of the concentration advisor. All students must successfully complete three comprehensive

## GRADUATE COURSE CATALOG

examinations; one in Syntax, one in Phonology, and one in Sociolinguistics. All students must also either successfully complete a comprehensive examination in their concentration area, or successfully write and defend a thesis in their concentration area.

The student works with the concentration advisor in one of six concentration areas:

### 1. Information Representation and Retrieval:

Concentration Advisor  
Bei Yu  
Assistant Professor  
Office: 320 Hinds Hall  
Tel: 315-443-3614  
Email: byu@syr.edu

Equivalent or alternative courses may be substituted for any of the courses listed below by approval of the program. Be aware that certain courses may have prerequisites, e.g., LIN 641 - Syntactic Analysis must be taken before LIN 741 - Advanced Syntax, LIN 601 - Introductory Linguistic Analysis must be taken before LIN 631 - Phonological Analysis or LIN 641 - Syntactic Analysis, and CSD 616 - Introduction to Applied Phonetics must be taken before CSD 638 - Clinical Phonology or CSD 643 (Phonological Disability).

### 1. Linguistics Core Courses (12 credits)

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 641 - Syntactic Analysis 3 credit(s)**
- **LIN 571 - Topics in Sociolinguistics 3 credit(s)**

### Concentration Area Required Courses (6 Credits)

- CIS 563 - Natural Language Processing or
- **IST 664 - Natural Language Processing 3 credit(s)**
- **IST 637 - Digital Information Retrieval Services 3 credit(s)**

### Concentration Area Elective Courses (12 Credits)

Select four courses from the list below in consultation with your advisor.

- **IST 565 - Data Mining 3 credit(s)**
- **IST 616 - Information Resources:**

### Organization and Access 3 credit(s)

- **IST 631 - Theory of Classification and Subject Representation 3 credit(s)**
- **IST 638 - Indexing and Abstracting Systems and Services 3 credit(s)**
- **IST 649 - Human Interaction with Computers 3 credit(s)**
- **IST 657 - Basics of Information Retrieval Systems 3 credit(s)**
- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**
- **IST 676 - Foundations of Digital Data 1-3 credit(s)**
- **IST 681 - Metadata 3 credit(s)**
- **IST 686 - Social Media in the Enterprise 3 credit(s)**
- **IST 687 - Applied Data Science 3 credit(s)**
- **IST 719 - Information Visualization 3 credit(s)**
- **IST 736 - Text Mining 3 credit(s)**
- **IST 777 - Statistical Methods in Information Science and Technology 3 credit(s)**
- **LIN 741 - Advanced Syntax 3 credit(s)**  
(LIN 641 - Syntactic Analysis must be taken in the Spring semester of Year 1 since LIN 641 is a prerequisite of LIN 741)
- **LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 626 - Structure of Standard Arabic 3 credit(s)**
- **LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 673 - Language Variation and Change 3 credit(s)**
- **PHI 651 - Logic and Language 3 credit(s)**

### 2. Language Acquisition:

Concentration Advisor  
Linda Milosky  
Associate Professor  
Office: 621 Skytop Suite 1200  
Tel: 315-443-9620  
Email: milosky@syr.edu

Equivalent or alternative courses may be substituted for any of the courses listed below by

approval of the program. Be aware that certain courses may have prerequisites, e.g., LIN 641 - Syntactic Analysis must be taken before LIN 741 - Advanced Syntax, LIN 601 - Introductory Linguistic Analysis must be taken before LIN 631 - Phonological Analysis or LIN 641 - Syntactic Analysis, and CSD 616 - Introduction to Applied Phonetics must be taken before CSD 638 - Clinical Phonology or CSD 643 (Phonological Disability).

### 1. Linguistics Core Courses (12 Credits)

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 641 - Syntactic Analysis 3 credit(s)**
- **LIN 571 - Topics in Sociolinguistics 3 credit(s)**

### 2. Concentration Area Required Courses (12 Credits)

Required:

- **CSD 622 - Development of Speech and Language 3 credit(s)**

Choose 3 of the Following:

- **LIN 591 - Second Language Acquisition 3 credit(s)**
- **CSD 616 - Introduction to Applied Phonetics 3 credit(s)**
- **CSD 627 - Articulation Disorders 3 credit(s) \***
- **CSD 723 - Assessment of Children's Language 3 credit(s)**
- **CSD 623 - Language Disorders of Early Childhood 3 credit(s)** or
- **CSD 731 - Language Disorders in School-Age Children 3 credit(s)**
- **CSD 638 - Clinical Phonology 3 credit(s)**  
\* or
- CSD 643 - Phonological Disability

Note:

\* A course in phonetics or permission of the instructor is required prior to taking these courses.

### Concentration Area Elective Courses (6 Credits)

Select two courses from the list in consultation with your concentration advisor.

## GRADUATE COURSE CATALOG

- ANT 678 - Language and Gender
- **LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 661 - Introduction to Historical Linguistics 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 691 - Universal Grammar and Second Language Acquisition 3 credit(s)**
- **LIN 741 - Advanced Syntax 3 credit(s)**
- **PSY 734 - Developmental Psychology: Infancy and Childhood 3 credit(s)**
- **LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 673 - Language Variation and Change 3 credit(s)**

### 3. Language, Culture, and Society:

Concentration Advisor  
Susan Wadley  
Professor  
Office: 209 Maxwell Hall  
Tel: 315-443-1011  
Email: sswadley@syr.edu

Equivalent or alternative courses may be substituted for any of the courses listed below by approval of the program. Be aware that certain courses may have prerequisites, e.g., LIN 641 - Syntactic Analysis must be taken before LIN 741 - Advanced Syntax, LIN 601 - Introductory Linguistic Analysis must be taken before LIN 631 - Phonological Analysis or LIN 641 - Syntactic Analysis, and CSD 616 - Introduction to Applied Phonetics must be taken before CSD 638 - Clinical Phonology or CSD 643 (Phonological Disability).

#### 1. Linguistics Core Courses (12 Credits)

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 641 - Syntactic Analysis 3 credit(s)**
- **LIN 571 - Topics in Sociolinguistics 3 credit(s)**

#### 2. Concentration Area Required Courses (3 Credits)

- **ANT 672 - Language, Culture, and Society 3 credit(s)**

#### Concentration Area Elective Courses (9 Credits)

Select 3 courses from the list in consultation with the concentration advisor.

- ANT 678 - Language and Gender
- **ANT 682 - Life Histories/Narratives 3 credit(s)**
- **LIN 661 - Introduction to Historical Linguistics 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 681 - Global Communication Through World Englishes 3 credit(s)**
- **LIN 691 - Universal Grammar and Second Language Acquisition 3 credit(s)**
- **CRS 535 - Communication & Community 3 credit(s)**
- **CRS 614 - Communication, Power & Gender 3 credit(s)**
- **CRS 630 - Intercultural Communication 3 credit(s)**
- **CRS 514 - Language & Meaning 3 credit(s)**

#### “Structure of Modern Language or History of Language” Course

An advanced “Structure of Modern Language or History of Language” course, or an area studies course, may be taken with approval of the concentration advisor and the Program.

- **LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 626 - Structure of Standard Arabic 3 credit(s)**
- **LIN 673 - Language Variation and Change 3 credit(s)**
- **SPA 636 - The Structure of Spanish 3 credit(s)**

#### 4. Linguistic Theory:

Concentration Advisor  
Jaklin Kornfilt  
Professor  
Office: 305 HBC  
Tel: 315-443-5375  
Email: kornfilt@syr.edu

Equivalent or alternative courses may be

substituted for any of the courses listed below by approval of the program. Be aware that certain courses may have prerequisites, e.g., LIN 641 - Syntactic Analysis must be taken before LIN 741 - Advanced Syntax, LIN 601 - Introductory Linguistic Analysis must be taken before LIN 631 - Phonological Analysis or LIN 641 - Syntactic Analysis, and CSD 616 - Introduction to Applied Phonetics must be taken before CSD 638 - Clinical Phonology or CSD 643 (Phonological Disability).

#### 1. Linguistics Core Courses (12 Credits)

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 641 - Syntactic Analysis 3 credit(s)**
- **LIN 571 - Topics in Sociolinguistics 3 credit(s)**

#### Concentration Area Required Courses (6 Credits)

Select 2 courses from the list below in consultation with your advisor.

- **LIN 611 - Semantics of Human Languages 3 credit(s)**
- **LIN 612 - Pragmatics: Meaning and Context 3 credit(s)**
- **LIN 651 - Morphological Analysis 3 credit(s)**
- **LIN 661 - Introduction to Historical Linguistics 3 credit(s)**
- **LIN 741 - Advanced Syntax 3 credit(s) \***

Note:

\*Given that LIN 741 is offered in the Fall, LIN 641 - Syntactic Analysis must be taken in the Spring semester.

\*LIN 741 is a required course in this concentration (unless it is not offered in the student's second year).

#### Concentration Area Elective Courses (9 Credits)

Select three appropriate courses from the list below in consultation with your concentration advisor.

- ANT 671 - Language, Culture, and Society
- CIS 563 - Natural Language Processing or
- **IST 664 - Natural Language Processing 3 credit(s)**

## GRADUATE COURSE CATALOG

- **LIN 591 - Second Language Acquisition 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **PHI 552 - Modal Logic 3 credit(s)**
- **PHI 565 - Philosophy of Language 3 credit(s)**
- **PHI 573 - Philosophy of Physical Science 3 credit(s)**
- **PHI 665 - Problems in Philosophy of Language 3 credit(s)**
- **PHI 651 - Logic and Language 3 credit(s)**
- CSD 523 - Normal Development of Speech and Language
- **LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 626 - Structure of Standard Arabic 3 credit(s)**
- **LIN 673 - Language Variation and Change 3 credit(s)**
- **SPA 636 - The Structure of Spanish 3 credit(s)**

### 5. Logic and Language

Concentration Advisor  
Kevan Edwards  
Assistant Professor  
Office: 525 Hall of Languages  
Tel: 315-443-5821  
Email: kedwar02@syr.edu

Equivalent or alternative courses may be substituted for any of the courses listed below by approval of the program. Be aware that certain courses may have prerequisites, e.g., LIN 641 - Syntactic Analysis must be taken before LIN 741 - Advanced Syntax, LIN 601 - Introductory Linguistic Analysis must be taken before LIN 631 - Phonological Analysis or LIN 641 - Syntactic Analysis, and CSD 616 - Introduction to Applied Phonetics must be taken before CSD 638 - Clinical Phonology or CSD 643 (Phonological Disability).

#### 1. Linguistics Core Courses (12 Credits)

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3**

- **credit(s)**
- **LIN 641 - Syntactic Analysis 3 credit(s)**
- **LIN 571 - Topics in Sociolinguistics 3 credit(s)**

#### 2. Concentration Area Required Courses (6 Credits)

Required:

- **PHI 651 - Logic and Language 3 credit(s)**

Formal Languages. Choose one of the following:

- **PHI 551 - Mathematical Logic 3 credit(s)**
- **PHI 552 - Modal Logic 3 credit(s)**
- CIS 637 - Formal Languages
- **CIS 661 - Logic Programming 1 3 credit(s)**
- CIS 662 - Logic and Programming II
- **CIS 672 - Mathematical Logic I 3 credit(s)**
- CIS 673 - Mathematical Logic II

#### Concentration Area Elective Courses (6-12 Credits)

a. Additional Courses from list 2 (Formal Languages)

b. Any concentration-advisor-approved graduate linguistic (LIN) course

c. Any concentration-advisor-approved philosophy (PHI) course numbered 700 or above

d. Any of the following

- PHI 533 - Philosophy of Mind
- **PHI 565 - Philosophy of Language 3 credit(s)**
- **PHI 573 - Philosophy of Physical Science 3 credit(s)**
- **PHI 575 - Philosophy of Social Science 3 credit(s)**
- **PHI 665 - Problems in Philosophy of Language 3 credit(s)**
- **PHI 673 - The Structure of Science 3 credit(s)**
- **PHI 687 - Proseminar: Language, Epistemology, Mind and Metaphysics 3**

**credit(s)**

- PHI 663 - Logics for Artificial Intelligence
- CIS 763 - Formal Foundations of Computational Linguistics
- **CIS 767 - Mathematical Theory of Computation 3 credit(s)**
- **LIN 741 - Advanced Syntax 3 credit(s)**
- **LIN 626 - Structure of Standard Arabic 3 credit(s)**
- **LIN 673 - Language Variation and Change 3 credit(s)**
- **SPA 636 - The Structure of Spanish 3 credit(s)**

#### 6. Teaching languages (English Language Teaching/Foreign Language Teaching):

Concentration Advisor  
Amanda Brown  
Associate Professor  
Office: 323C HBC  
Tel: 315-443-2244  
Email: abrown08@syr.edu

Equivalent or alternative courses may be substituted for any of the courses listed below by approval of the program. Be aware that certain courses may have prerequisites, e.g., LIN 641 - Syntactic Analysis must be taken before LIN 741 - Advanced Syntax, LIN 601 - Introductory Linguistic Analysis must be taken before LIN 631 - Phonological Analysis or LIN 641 - Syntactic Analysis, LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching must be taken before LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching.

#### 1. Linguistics Core Courses (12 Credits)

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 641 - Syntactic Analysis 3 credit(s)**
- **LIN 571 - Topics in Sociolinguistics 3 credit(s)**

#### 2. Concentration Area Required Courses (6 Credits)

- **LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 622 - Advanced Methods of Teaching**

## GRADUATE COURSE CATALOG

**Languages: English/Foreign Language Teaching 3 credit(s)**

A. Select 2 of the following courses in consultation with the concentration advisor:

Assessment

- **EDU 655 - Education Tests and Measurements 3 credit(s)**
- **IDE 641 - Techniques in Educational Evaluation 3 credit(s)**
- **IDE 741 - Concepts and Issues in Educational Evaluation 3 credit(s)**
- Evaluation

Language Acquisition

- **CSD 622 - Development of Speech and Language 3 credit(s)**
- **LIN 591 - Second Language Acquisition 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)**
- **LIN 691 - Universal Grammar and Second Language Acquisition 3 credit(s)**

Learning Populations

- **CSD 616 - Introduction to Applied Phonetics 3 credit(s)**
- **CSD 623 - Language Disorders of Early Childhood 3 credit(s)**
- **CSD 731 - Language Disorders in School-Age Children 3 credit(s)**
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- **HED 605 - The American College and University 3 credit(s)**
- **HED 712 - Research on the College Student 3 credit(s)**
- **IDE 652 - Assistive Technologies for Integrating Students with Special Needs 3 credit(s)**
- **IDE 771 - Methods and Techniques for Teaching and Training Adults 3 credit(s)**
- **RED 626 - Early Intervention for Children's Reading Problems 3 credit(s)**

Literacy

- **ELL 625 - Methods of Teaching Literacy to English Language Learners 3 credit(s)**

- **ELL 635 - Methods of Literacy Across the Curriculum for English Language Learners 3 credit(s)**
- **RED 607 - Issues in Multicultural Literacy 3 credit(s)**
- **RED 746 - Perspectives on Literacy and Technology 3 credit(s)**

Materials Design

- **IDE 611 - Technologies for Instructional Settings 3 credit(s)**
- **IDE 621 - Principles of Instruction and Learning 3 credit(s)**
- **IDE 631 - Instructional Design and Development I 3 credit(s)**
- **IDE 632 - Instructional Design and Development II 3 credit(s)**
- **IDE 656 - Computers as Critical Thinking Tools 3 credit(s)**
- **IDE 736 - Motivation in Learning and Instruction 3 credit(s)**

Program Management

- **HED 621 - Principles and Practices of Student Affairs Administration 3 credit(s)**
- **IDE 761 - Strategies in Educational Project Management 3 credit(s)**

Data Exploration and Management

- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**
- **IST 657 - Basics of Information Retrieval Systems 3 credit(s)**
- **IST 664 - Natural Language Processing 3 credit(s)**
- **IST 681 - Metadata 3 credit(s)**
- **IST 686 - Social Media in the Enterprise 3 credit(s)**
- **IST 736 - Text Mining 3 credit(s)**

B. Select 2 of the following courses in consultation with the concentration advisor:

Language & Society

- **ANT 672 - Language, Culture, and Society 3 credit(s)**
- **CFE 640 - Inequality and Intergroup Relations in Education 3 credit(s)**

- **CRS 630 - Intercultural Communication 3 credit(s)**
- **LIN 673 - Language Variation and Change 3 credit(s)**
- **LIN 681 - Global Communication Through World Englishes 3 credit(s)**

Language Structure

- **LIN 611 - Semantics of Human Languages 3 credit(s)**
- **LIN 612 - Pragmatics: Meaning and Context 3 credit(s)**
- **LIN 626 - Structure of Standard Arabic 3 credit(s)**
- **LIN 651 - Morphological Analysis 3 credit(s)**
- **LIN 661 - Introduction to Historical Linguistics 3 credit(s)**
- **LIN 741 - Advanced Syntax 3 credit(s)**
- **PHI 565 - Philosophy of Language 3 credit(s)**
- **PHI 651 - Logic and Language 3 credit(s)**
- **SPA 635 - Spanish Phonetics and Phonology 3 credit(s)**
- **SPA 636 - The Structure of Spanish 3 credit(s)**

## Mathematics Education, MS

### Chair

Uday Banerjee, 215 Carnegie, 315-443-1472.

### 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

The Department of Mathematics has 31 faculty members, with research interests in several areas of mathematics, statistics, and mathematics education, and approximately 55 graduate students. The department is housed in the



## GRADUATE COURSE CATALOG

recently renovated Carnegie Library building on the main campus quadrangle. Programs of study include those for M.S. and Ph.D. degrees in Mathematics, with or without a concentration in Statistics, and for M.S. and Ph.D. degrees in Mathematics Education.

### M.S. in Mathematics Education

The Department of Mathematics in the College of Arts and Sciences and the School of Education offer a program leading to the degree of Master's of Science in Mathematics Education. The Preparation Program is for students with an undergraduate major in mathematics who wish to teach in secondary schools. This program provides for preservice education of mathematics majors. The Preparation Program consists of a minimum of 43 hours, and requires at least two courses in mathematics and a Master's exam or thesis.

### Research Areas

The department's Colloquium series features weekly lectures by mathematicians from all over the United States and abroad in many of the areas of mathematical research represented in the department. Furthermore several of the research groups organize regular research seminars. Colloquia and seminar schedules, along with other information about our programs, courses, and events, can be found at [math.syr.edu](http://math.syr.edu).

The following research groups are currently represented in the department.

### Algebra

Algebraic geometry (moduli spaces of curves, equations defining finite sets of points), commutative algebra (homological algebra, Cohen-Macaulay modules, characteristic  $p$ ), non-commutative algebra (representations of finite-dimensional algebras, homological algebra, group actions on non-commutative rings, Hopf algebras, enveloping algebras, non-commutative algebraic geometry). Faculty: Diaz, Kleiner, Leuschke, Miller, Quinn, Zacharia.

### Analysis

Complex analysis (several complex variables, pluripotential theory, complex dynamics, invariant metrics, holomorphic currents, Kähler geometry, rigidity problems), geometric analysis (PDE on manifolds, geometric flows), harmonic analysis, partial differential equations (linear and nonlinear elliptic PDE, boundary value problems on nonsmooth domains), geometric function theory (quasiconformal mappings, analysis on metric spaces). Faculty: Coman, Iwaniec, Kovalev, Lanzani, Onninen, Poletsky, Verchota, Vogel, Wylie, Yuan.

### Applied Mathematics

Numerical analysis (approximate solutions of elliptic PDE, generalized finite element methods and meshless methods), nonlinear variational problems (microstructure in nonlinear elasticity), applied and computational harmonic analysis (wavelets, digital image processing). Faculty: Banerjee, Lutoborski, Shen, Wang.

### Combinatorics

Combinatorics, graph theory, rigidity theory, symmetries of planar graphs, automorphism groups of graphs. Faculty: Graver.

### Geometry/Topology

Low-dimensional topology and knot theory (knot concordance, Heegaard Floer homology, homology theories for knots and links), K-theory (topological K-theory of Eilenberg-Mac Lane spaces, equivariant homotopy theory), Riemannian/Kähler geometry (Ricci curvature and topology, special metrics, geometric flows, rigidity problems). Faculty: Horn, Ucci, Wehrli, Wylie, Yuan.

### Mathematics Education

Secondary mathematics education, teacher learning, mathematical modeling, out-of-school mathematics practice, teacher development. Faculty: Doerr, Masingila.

### Probability

Interacting particle systems, Brownian motion, random walks, probabilistic methods in mathematical finance, martingales. Faculty: Cox, Griffin, McConnell.

### Statistics

Ranking and selection theory (applications in radar signal processing and two-stage procedures for multinomial problems), change-point problems, sequential analysis, longitudinal analysis, neural networks. Faculty: Chen, Kim, Volterman.

### Graduate Awards

Figures for graduate appointments represent 2015-2016 stipends.

### Graduate Scholarships:

Support graduate study for students with superior qualifications; provide, in most cases, full tuition for the academic year.

### Graduate Assistantships:

Offered to most Graduate Scholarship recipients; no more than an average of 15 hours of work per week; nine months; stipend ranging from \$17,244.26 to \$21,072.77 in addition to tuition scholarship for 24 credits per year. Additional summer support is generally available.

### Syracuse University Graduate Fellowships:

Tax-free stipends ranging from \$14,535 to \$24,310 for nine months of full-time study; tuition scholarship for 15 credits per semester for a total of 30 credits during the academic year.

### Facilities

The mathematics collection is held within the Carnegie Library and currently includes over 34,000 books. Many of the resources are online and include MathSciNet, Current Index to Statistics, Jahrbuch Database, MathEduc, ERIC, Scopus, and Web of Science, and over 350 mathematics journal subscriptions.

In addition to covering a broad range of pure and applied mathematics, the collection contains print and electronic resources in the history of mathematics, mathematics education, and statistics. The following resources are available for student borrowing from the Carnegie Library service desk: TI graphing calculators, geometry kits, and course reserve books.

The computer lab in Carnegie Library, Room 208, has 16 computers, and a color printer with copying and scanning capability. The lab computers provide extensive software for statistical or data analysis, data base management, programming, and graphics. More information on computing services and the software available for students may be found on the ITS website: <https://its.syr.edu/computer-labs/index.html>.

The Carnegie Library contains over 210,000 volumes in the sciences, including biology, chemistry, engineering and computer science, library and information science, nutrition science and dietetics, public health, physics & astronomy, photography, technical arts, pure and applied mathematics, probability and statistics, mathematics education, and military and naval sciences. The historic Reading Room provides a quiet place for students to study and use library resources.

### Mathematics, MS

### Chair

Uday Banerjee, 215 Carnegie, 315-443-1472.

# GRADUATE COURSE CATALOG

## 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 Volterman, Yi (Grace) Wang, Stephan Wehrli, William Wylie, Yuan Yuan, Dan Zacharia

The Department of Mathematics has 32 faculty members, with research interests in several areas of mathematics, statistics, and mathematics education, and approximately 55 graduate students. The department is housed in the recently renovated Carnegie Library building on the main campus quadrangle. Programs of study include those for M.S. and Ph.D. degrees in Mathematics, with or without a concentration in Statistics, and for M.S. and Ph.D. degrees in Mathematics Education.

## M.S. in Mathematics

The Department of Mathematics offers two programs leading to the Master's of Science in Mathematics degree. The programs are (1) Mathematics (including pure and applied mathematics) and (2) Statistics. Master's programs share MAT 601 - Fundamentals of Analysis I and MAT 631 - Introduction to Algebra I as common foundations, and there is additional overlap between them.

Thirty credits of graduate work are required, of which at least 18 must be at the 600-level or above, and at least 15 of those 18 credits must be in the mathematics department. In the mathematics option the student must also complete MAT 602 - Fundamentals of Analysis II, MAT 632 - Introduction to Algebra II, and a sequence in applied mathematics from an approved list of sequences. In the statistics option several particular courses are required.

Students must have at least a B average in the 15 credits of 600-level or above mathematics department courses and at least a B average in the 30 credits of coursework comprising the degree program. No master's thesis is required.

## Joint and Concurrent Degree Programs-Mathematics and Computer Science

In collaboration with the Department of Electrical Engineering and Computer Science in the College of Engineering, we offer concurrent M.S. degrees in mathematics and computer science. Students complete a total of 51 credits, 30 in mathematics

and 21 in computer science. Students who want to pursue this program should have a solid background in undergraduate mathematics, and knowledge of programming in high-level languages and of algorithms and data structures adequate for graduate study in computer science.

## Research Areas

The department's Colloquium series features weekly lectures by mathematicians from all over the United States and abroad in many of the areas of mathematical research represented in the department. Furthermore several of the research groups organize regular research seminars. Colloquia and seminar schedules, along with other information about our programs, courses, and events, can be found at math.syr.edu.

The following research groups are currently represented in the department.

## Algebra

Algebraic geometry (moduli spaces of curves, equations defining finite sets of points), commutative algebra (homological algebra, Cohen-Macaulay modules, characteristic  $p$ ), non-commutative algebra (representations of finite-dimensional algebras, homological algebra, group actions on non-commutative rings, Hopf algebras, enveloping algebras, non-commutative algebraic geometry). Faculty: Diaz, Kleiner, Leuschke, Miller, Quinn, Zacharia.

## Analysis

Complex analysis (several complex variables, pluripotential theory, complex dynamics, invariant metrics, holomorphic currents, Kähler geometry, rigidity problems), geometric analysis (PDE on manifolds, geometric flows), harmonic analysis, partial differential equations (linear and nonlinear elliptic PDE, boundary value problems on nonsmooth domains), geometric function theory (quasiconformal mappings, analysis on metric spaces). Faculty: Coman, Iwaniec, Kovalev, Lanzani, Onninen, Poletsky, Verchota, Vogel, Wylie, Yuan.

## Applied Mathematics

Numerical analysis (approximate solutions of elliptic PDE, generalized finite element methods and meshless methods), nonlinear variational problems (microstructure in nonlinear elasticity), applied and computational harmonic analysis (wavelets, digital image processing). Faculty: Banerjee, Lutoborski, Shen, Wang.

## Combinatorics

Combinatorics, graph theory, rigidity theory, symmetries of planar graphs, automorphism

groups of graphs. Faculty: Graver.

## Geometry/Topology

Low-dimensional topology and knot theory (knot concordance, Heegaard Floer homology, homology theories for knots and links), K-theory (topological K-theory of Eilenberg-Mac Lane spaces, equivariant homotopy theory), Riemannian/Kähler geometry (Ricci curvature and topology, special metrics, geometric flows, rigidity problems). Faculty: Horn, Ucci, Wehrli, Wylie, Yuan.

## Mathematics Education

Secondary mathematics education, teacher learning, mathematical modeling, out-of-school mathematics practice, teacher development. Faculty: Doerr, Masingila.

## Probability

Interacting particle systems, Brownian motion, random walks, probabilistic methods in mathematical finance, martingales. Faculty: Cox, Griffin, McConnell.

## Statistics

Ranking and selection theory (applications in radar signal processing and two-stage procedures for multinomial problems), change-point problems, sequential analysis, longitudinal analysis, neural networks. Faculty: Chen, Kim, Volterman.

## Graduate Awards

Figures for graduate appointments represent 2015-2016 stipends.

## Graduate Scholarships:

Support graduate study for students with superior qualifications; provide, in most cases, full tuition for the academic year.

## Graduate Assistantships:

Offered to most Graduate Scholarship recipients; no more than an average of 15 hours of work per week; nine months; stipend ranging from \$17,244.26 to \$21,072.77 in addition to tuition scholarship for 24 credits per year. Additional summer support is generally available.

## Syracuse University Graduate Fellowships:

Tax-free stipends ranging from \$14,535 to \$24,310 for nine months of full-time study;

## GRADUATE COURSE CATALOG

tuition scholarship for 15 credits per semester for a total of 30 credits during the academic year.

### Facilities

The mathematics collection is held within the Carnegie Library and currently includes over 34,000 books. Many of the resources are online and include MathSciNet, Current Index to Statistics, Jahrbuch Database, MathEduc, ERIC, Scopus, and Web of Science, and over 350 mathematics journal subscriptions.

In addition to covering a broad range of pure and applied mathematics, the collection contains print and electronic resources in the history of mathematics, mathematics education, and statistics. The following resources are available for student borrowing from the Carnegie Library service desk: TI graphing calculators, geometry kits, and course reserve books.

The computer lab in Carnegie Library, Room 208, has 16 computers, and a color printer with copying and scanning capability. The lab computers provide extensive software for statistical or data analysis, data base management, programming, and graphics. More information on computing services and the software available for students may be found on the ITS website: <https://its.syr.edu/computer-labs/index.html>.

The Carnegie Library contains over 210,000 volumes in the sciences, including biology, chemistry, engineering and computer science, library and information science, nutrition science and dietetics, public health, physics & astronomy, photography, technical arts, pure and applied mathematics, probability and statistics, mathematics education, and military and naval sciences. The historic Reading Room provides a quiet place for students to study and use library resources.

### Medicolegal Death Investigation, MS

#### Contact:

Michael Sponsler  
315-443-4880  
sponsler@syr.edu

#### Faculty:

Robert Silver, James T. Spencer, Michael B. Sponsler, Kevin Sweder, Ulrich Englich, David Knaebel, Shannon Novak, Sanjay Chhablani, James Hewett

#### Description:

The M.S. in Medicolegal Death Investigation is a focused degree program designed to prepare students for all aspects of a career as a death investigator.

This degree is intended for students who have selected this career path, and the objective is to prepare them both for the various aspects of this occupation (case investigation, understanding the body along with pathologies and trauma, autopsy, interviewing skills, securing and documenting evidence, courtroom testimony), as well as working effectively with and understanding other professionals whose roles intersect with death investigation (forensic pathologists, forensic scientists, crime scene investigators, law enforcement officers, toxicologists, and other medical and legal personnel). Graduates of this program will be exceptionally well prepared for this career relative to most applicants for the positions.

Total Credits: 36

Gateway Courses: 27 Credits Required

- **FSC 606 - Advanced Forensic Science 3 credit(s)**
- **FSC 631 - Statistics for Forensic Science 3 credit(s)**
- **FSC 633 - Quality Assurance and Ethics 3 credit(s)**
- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)** Anatomy and Physiology for Forensic Investigations
- **FSC 651 - Forensic Pathology 3 credit(s)**
- **FSC 663 - Bloodstain Pattern Analysis 3 credit(s)**
- **FSC 668 - Crime Scene Investigation 3 credit(s)**

Electives: 6 Credits Required

- **ANT 633 - Human Osteology 3 credit(s)**
- **ANT 634 - Anthropology of Death 3 credit(s)**
- **ANT 636 - Bioarchaeology 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)** Forensic Biochemical Analysis
- **FSC 644 - Forensic Chemical Analysis 4**

**credit(s)**

- **FSC 653 - Forensic Toxicology 3 credit(s)**
- **FSC 657 - Principles of Human Toxicology 3 credit(s)**
- **FSC 661 - Firearms and Impression Evidence 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 667 - Forensic Photography 3 credit(s)**
- **FSC 671 - Firearms and Impressions Evidence II 3 credit(s)**
- **FSC 672 - Advanced Light Microscopy 3 credit(s)**
- **LAW 604 - Criminal Law 3 credit(s)**
- **LAW 708 - Constitutional Criminal Procedure - Investigative 3 credit(s)**

Internship: 3 Credits Required

Each student is required to participate in an internship in a medical examiner's office, related to forensic pathology and/or medicolegal death investigation. Credits in excess of 3 will be counted as elective credits.

FSC 690 - Independent Study in Forensic Science 1-6 credit(s)

### Pan African Studies, MA

#### Chair

Kishi Animashaun Ducre  
200 Sims Hall  
315-443-4302

#### Faculty

Joan Bryant, Horace Campbell, Linda Carty, David Kwame Dixon, Kishi Animashaun Ducre, Casarae Gibson, Janis A. Mayes, Herbert Ruffin, S.N. Sangpam, Renate Simson, Kheli R. Willetts, James G. Williams

M.A. in Pan African Studies

The M.A. degree in Pan African Studies is a 30-credit program offering students a comprehensive understanding of the global African experience. This interdisciplinary program is structured around:

- Four core courses (AAS 525, AAS 610, AAS 611, and AAS 612)
- Two electives (Advance research methods &

## GRADUATE COURSE CATALOG

Advance theory)

- An external site experience (AAS 670)
- A thesis (AAS 997)

Courses explore the Pan African experience as reflected in multiple historical, social, and political contexts, most notably in Africa, the Caribbean, and the United States. With the approval of the Graduate Committee, students may participate in the Scholar Exchange Program, a cooperative relationship with the University of Rochester and Cornell University.

This innovative program is distinct from any other of its kind. It has a unique experiential component that requires a residency at an external site at which the department either runs a Syracuse University Abroad (SU Abroad) program, or has established an institutional affiliation. This experience offers students alternative academic exposure while confronting them with the challenge of merging theory and practice as they learn to operationalize Pan African Studies in the larger world.

The targeted sites are located in Africa, the Caribbean, Europe, Canada, and the United States. At the site, students complete a pre-approved project involving research, practical education, independent study, an internship, or a related activity. Two of the graduate courses that contribute to the core offerings in the program, AAS 611 - Arts, Cultures and Literatures of the Pan African World and AAS 612 - Histories, Societies and Political Economies of the Pan African World, are unlike any courses offered in similar graduate programs around the country. The courses create a comprehensive framework that brings together concentrations from specific disciplinary foci, as well as the transformations in those foci that have occurred through the Black encounter.

Students learn to appreciate intellectual nuances, dynamism, and diversification as these pertain to Pan African Studies, a layered and complex field of academic engagement. Of equal importance, they are taught to engage the silences inherent in many disciplines and paradigms, including those associated with traditional Africana studies approaches. The M.A. in Pan African Studies degree exposes students to the arts, the humanities, and the social sciences, and incorporates a wider global framework against which the spectrum of the entire Black world is critically, comparatively, and contrastively examined and theorized.

The program aims to produce well-groomed, master's-level scholars ready either to proceed to doctoral studies in the humanities or the social sciences, or to enter the world of work. Potential areas of employment include the local non-governmental sector, international organizations, social services, criminal justice, education, and

health care, among others.

### Program of Study

#### Required Core Courses (12 credits from core courses)

- **AAS 525 - Research Methods in African American Studies 3 credit(s)**
- **AAS 610 - Seminar in Pan Africanism: Research and Reading 3 credit(s)**
- **AAS 611 - Arts, Cultures and Literatures of the Pan African World 3 credit(s)**
- **AAS 612 - Histories, Societies and Political Economies of the Pan African World 3 credit(s)**
- **AAS 670 - Experience Credit 1-6 credit(s)**
- **AAS 997 - Master's Thesis 6-9 credit(s)**

#### Additional Information

(The thesis serves as the required "exit" experience of students.)

#### Two Additional Courses

Students must take two additional courses: advance research methods & advance theory, for a total 6 credits. Before registering for a course from list A, B, or any non-listed course, students must obtain the approval of their advisors and/or the chairperson of the Graduate Studies Committee in the Department of African American Studies.

#### List A:

Roster of additional courses offered by or cross-listed with the Department of African American Studies (Includes courses formally cross-listed with the Department of African American Studies. Where relevant, the sponsoring department is emphasized.

- **AAS 500 - Selected Topics 1-6 credit(s)**  
African American Studies: Research and Readings (AA)
- **AAS 501 - African American Sociological Practice:1900-45 3 credit(s)** (AA)
- **AAS 510 - Studies in African American History 3 credit(s)** (AA)
- **AAS 512 - African American Women's History 3 credit(s)** (AA)
- **AAS 513 - Toni Morrison: Black Book Seminar 3 credit(s)** (AA)
- **AAS 543 - Religious Cultures of the American South** (AA)

- **AAS 600 - Selected Topics 1-6 credit(s)**  
Pan African Studies (A, AA, AC)
- **AAS 620 - Black Women Writers 3 credit(s)** African American/Caribbean/African (A, AA, AC)
- **AAS 627 - New York City: Black Women Domestic Workers 3 credit(s)** (AC)
- **AAS 631 - Seminar in African Drama and Theater 3 credit(s)** (A)
- **AAS 634 - Underground Railroad 3 credit(s)**
- **ANT 694 - Underground Railroad 3 credit(s)**
- ANT 640 - Topics in African Archaeology
- **AAS 645 - The Caribbean: Sex Workers, Transnational Capital, and Tourism 3 credit(s)** (AC)
- **AAS 670 - Experience Credit 1-6 credit(s)** (A, AA, AC)
- **AAS 671 - Caribbean Intellectual Thought 3 credit(s)** (AC) \*\*
- **PSC 800 - Selected Topics 1-6 credit(s)** (AC) \*\*
- **AAS 681 - Comparative State, Society Relations 3 credit(s)** (A, AA, AC)
- **AAS 690 - Independent Study 1-6 credit(s)** (A, AA, AC)
- **AAS 700 - Seminar in African American Studies 3 credit(s)** (AA)
- **AAS 731 - Militarism and Transformation in South Africa 3 credit(s)** (A)
- **PSC 780 - Seminar on Political Systems 3 credit(s)** (A) \*\*
- **AAS 765 - Readings and Research in African History 3 credit(s)** (A)

#### Note:

\*Cross-listing requested

\*\*Political Science will cross list as a special topic course on a semester by semester basis.

#### List B:

Roster of courses offered by other departments

The following are examples of courses, in which students may elect to enroll, subject to the approval of their advisors and the chairperson of the Graduate Committee of the Department of African American Studies. Enrollment is also conditional upon consultation with the instructor of the course regarding any prerequisites and the suitability of the course to a particular student's

## GRADUATE COURSE CATALOG

academic interests and previous academic preparation. List B will vary from semester to semester depending on what is offered by other departments. As a general rule, list B courses give attention to the Pan African experience in a more limited fashion than those in list A, perhaps by devoting a unit of study over several sessions or weeks to topics which relate directly or indirectly to the Pan African experience. These include:

- EDP 626 - Cross Cultural Counseling
- **ANT 553 - Women and Social Change 3 credit(s)**
- **ANT 756 - Development Anthropology 3 credit(s)**
- **SWK 628 - Human Diversity in Social Contexts 3 credit(s)**
- LAW 758 - Civil Rights

### Additional Information

Other options will be identified and added as the program progresses and as needs arise. The AAS Graduate Studies Committee will continue to foster networking with relevant departments targeted for cross listing. As this process continues, courses identified will be added to the standing list.

### Graduate Awards

Teaching Assistants in the Department of African American Studies carry a substantial stipend and tuition scholarship of 24 credits (6 of which can be used during the summer). Preference is given to graduate students in Pan African Studies. Teaching Assistants work within the Department of African American Studies for 20 hours per week. Appointments to assistantships are made by the Department of African Studies with the concurrence of the Graduate School. Students are responsible for directly notifying the Department of African American Studies of their interest.

Graduate Fellowships are awards to support graduate training for African American studies students (United States citizens and permanent residents) with outstanding qualifications. Awards are made by the Dean of the Graduate School, upon recommendations of the African American Fellowship Committee.

They are intended for individuals whose graduate study involves the integration of African American/Pan African studies into their respective fields of study. Each fellowship includes a substantial stipend, plus a tuition scholarship for 30 credits per academic year.

### Philosophy, MA

### Contact

Director of Graduate 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, Hille Paakkunainen, Kara Richardson, Michael Rieppel, Nathaniel Sharadin, David Sobel, Laurence Thomas, Robert Van Gulick

The graduate program in philosophy offers study in the core areas of Anglo-American philosophy. It also offers work on the thought of some of the major figures of the history of philosophy, e.g., Plato, Aristotle, Hume, Leibniz, Spinoza, Descartes, and Kant. The department believes that each student's education should include some study of the history of philosophy whether or not the student's interests are primarily historical. The program is designed to prepare students both to teach philosophy and to contribute to the advance of philosophical inquiry.

There are generally 40 full-time philosophy graduate students in residence at Syracuse. Most full-time students in the Ph.D. program are awarded financial assistance in the form of a teaching assistantship, a fellowship, or a tuition scholarship.

### M.A. in Philosophy

The student seeking the M.A. in philosophy will ordinarily complete 24 credits of coursework and defend viva voce a 6-credit master's thesis. With the permission of the department, a student admitted to the Ph.D. Program may receive the M.A. in philosophy after completing all pre-dissertation requirements for the Ph.D. degree.

### Programs in Philosophy and Law

The Philosophy Department joins with the College of Law in offering an opportunity to pursue the J.D./M.A. Philosophy or the J.D./Ph.D. Philosophy degrees at the same time. See the departmental web site at <http://philosophy.syr.edu/GradStudiesinfo.htm> for a more detailed description of these programs.

### Physics, MS

### Chair

A. Alan Middleton  
201 Physics Building,  
315-443-3901.

### 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

The Department of Physics has 31 faculty members, 21 postdoctoral research associates, and about 71 graduate students. The department is housed in the modern, six-floor physics building overlooking the University's main quadrangle. Facilities include state-of-the-art laboratory space, high-performance computing resources, and a machine shop, in addition to numerous specialized research facilities maintained by the research groups described below.

The department runs a weekly colloquium series that brings scientists from the United States and abroad to the University to present research and exchange ideas. There are also several research seminar series run by the different research groups. Colloquia and seminar schedules (along with other information about our program, courses, and events) can be found on the Internet at [physics.syr.edu](http://physics.syr.edu).

### Degree Programs

All entering students must take a comprehensive examination. Those who perform unsatisfactorily may be required to take and pass remedial courses. However, any associated offer of financial support is not contingent upon passing this examination.

### M.S. in Physics

The degree can be achieved in any of three ways: (a) a thesis (involving 6 credits of PHY 997) in addition to 24 credits of regular course-work; (b) a minor problem (involving PHY 890) and passing the qualifying examination with 30 credits of regular coursework; or (c) passing the qualifying examination with 36 credits of regular coursework. The courses taken must include

- **PHY 581 - Methods of Theoretical Physics I 3 credit(s)**
- **PHY 614 - Graduate Laboratory 3 credit(s)** or
- **PHY 651 - Instrumentation in Modern Physics 3 credit(s)**
- **PHY 621 - Classical Mechanics 3 credit(s)**
- **PHY 641 - Advanced Electromagnetic Theory I 3 credit(s)**

- **PHY 661 - Quantum Mechanics I 3 credit(s)**
- **PHY 662 - Quantum Mechanics II 3 credit(s)**

### Additional Information

No more than three credits of PHY 690 or PHY 890 can count toward the M.S. degree. Students must maintain a B average.

### Research Areas

The department has several strong research groups from which former students and post-doctoral associates have gone on to distinguished careers at universities and in industry. Graduate work in physics presently encompasses the fields described below.

### Theoretical

#### Condensed Matter

Research in this area includes ongoing studies of soft matter systems, dynamical systems, granular materials, and disordered matter. Faculty study the mechanics of mesoscopic constructed materials and biological tissues. The dynamics of active matter, including reconstituted biological systems and living cells and flocks, is an active area of study. The glassy dynamical behavior and statistical physics of materials with disorder is studied, using connections with advanced algorithms to model complex systems. Flow and plastic deformation in jammed and glassy solids (as in metallic glasses, foams and granular materials) are the object of research work. Bowick, Manning, Marchetti, Middleton, Schwarz. Three postdoctoral fellows.

Elementary Particles and Fields Quantum field theory and quantum gravity. Supersymmetry and its application to quantum gravity and models of Beyond Standard Model Physics. Strongly coupled dynamics via effective field theory and lattice field theory. LHC phenomenology and lattice QCD. Inflation, the generation of density perturbations, the origin of dark matter and dark energy, baryogenesis and the cosmic microwave background radiation. Particle cosmology. Armendariz-Picon, Catterall, Fan, Hubisz, Laiho, Watson. Two postdoctoral fellows.

#### Computational Physics

Numerical studies of random surfaces, liquid membranes; study of quantum gravity as a theory of dynamically triangulated meshes; analysis of phase transitions and phase structure in disordered systems; gravitational waveforms from coalescences of astrophysical binary systems;

gravitational wave data analysis; numerical simulations on parallel computers; connections between algorithms and physical principles; lattice quantum chromodynamics. Application of distributed processing to large scale quantum theory problems. Bowick, Brown, Catterall, Couvares, Fisher, Laiho, Marchetti, Middleton. One postdoctoral fellow.

### Experimental

#### Astrophysics of the Interstellar Medium and Planetary Atmospheres

Laboratory studies of physical and chemical processes occurring in the interstellar medium and in planetary atmospheres, including formation of molecular hydrogen and hydrogenation and oxidation reactions on interstellar and/or planetary dust grain analogues. Vidali.

#### Biological and Medical Physics

Experimental studies of photosensory transduction in single-celled model microorganisms, using nonlinear systems physiology approaches; bioinformatics; phylogenetics and molecular clocks; technology development for telemedicine and human-computer interfacing; image processing in nuclear medicine and magnetic resonance imaging. Forstner, Foster, Krol, Lipson, Movileanu, Saranak.

#### High Energy Experimental Particle Physics

Experimental studies of the fundamental Electroweak and Strong interactions as manifested by the decays of beauty and charm quarks and production of other "exotic" phenomena. These studies are mostly preformed as part of the LHCb experiment at the Large Hadron Collider located at CERN in Geneva, Switzerland. We are primarily interested in how new physics phenomena manifests itself in CP violating and rare B meson decays. We also perform R&D leading to advanced silicon micro-pattern detectors, such as pixel and microstrip strip sensors, and their related readout electronics. The group is also active in neutrino flavor oscillation research, using neutrino beams created at Fermilab in Chicago, Illinois. Our neutrino program involves R&D on the

development of liquid argon neutrino detectors, as proposed for use in the MicroBooNE and LBNE experiments. Members of the group have discovered several new particles, including the B, Ds, Y(1D) and made the first measurements of several very important decay modes of these objects. Artuso, Blusk, Mountain, Skwarnicki, Soderberg, Stone and Wang. Four postdoctoral fellows.

#### Intermediate Energy Particle Physics

Use of spin degrees of freedom to study quantum chromodynamics and the Standard Model at low energies. Experiments are underway at Stanford Linear Accelerator Center (SLAC) and at Thomas Jefferson National Accelerator Facility (JLAB). Holmes, Souder. 1 postdoctoral fellow

#### Gravitational-wave Astronomy and Astrophysics

Detection of gravitational waves with the Laser Interferometric Gravitation Wave Observatory (LIGO). Development of advanced optics and precision metrology for interferometric detectors. Characterization of the LIGO detectors. Member of the LIGO Scientific Collaboration. Ballmer, Brown, Couvares, Fisher, Saulson. Three postdoctoral fellows.

#### Semiconductors, Thin Films, and Solar Cells

Electronic and optical properties of unconventional semiconductors (amorphous silicon, porous titania, and silicon). Solar cell device physics. Thin-film growth (plasma, hot-wire). Hybrid organic-inorganic semiconductor devices. Surface physics (structure, kinetics, dynamics, and reactions). Schiff.

#### Quantum mechanics and nanoscale devices

Superconducting devices and vortex dynamics Investigations of quantum coherence in nanoscale superconducting devices and vortex systems. Quantum effects in macroscopic systems. Nanofabrication of Josephson junctions and structured vortex pinning potentials. Low temperature measurements, including dilution refrigeration. Development of qubits for quantum computing. Applications of nanoelectromechanical systems. LaHaye, Plourde. Two postdoctoral

## GRADUATE COURSE CATALOG

fellows.

### Dark Matter

Development of improved ultra-low-radioactivity detectors and environments including detectors of Weakly Interacting Massive Particles, analysis of data from dark matter searches. Member of the Cryogenic Dark Matter Search and DEAP/CLEAN collaborations. Schnee. One postdoctoral fellow.

### Graduate Awards

Figures for graduate appointments represent 2015-2016 stipends.

Graduate Scholarships support graduate study for students with superior qualifications; provide, in most cases, full tuition for academic year.

Graduate Teaching Assistantships offered to most Graduate Scholarship recipients; nine months; stipend of \$23,460 (2015-2016) and tuition scholarship up to 24 credits (8 courses). Summer assistantships may be available. The assistant spends up to 20 hours per week engaged in teaching laboratory or recitation classes and in grading and preparation.

Graduate Research Assistantships no more than an average of 20 hours of work per week; a nine-month stipend of at least \$23,460 (2015-2016) and tuition scholarship up to 24 credits (8 courses). Summer assistantships may be available. The research assistant is normally paid for research work performed in conjunction with a faculty member and leading to the master's or doctor's dissertations.

Syracuse University Fellowships Tax-free stipends of \$24,310 (2015-2016) for nine months of full-time study; tuition scholarship for a total of 30 credits during the academic year.

### Religion, MA

#### Chair:

Ann Grodzins Gold  
501 Hall of Languages  
315-443-3863

#### Director of Graduate Studies:

Joanne Punzo Waghorne  
501 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

Graduate students in the Department of Religion at Syracuse University forge unique, creative, and rigorous programs of study that emphasize both research and teaching. The study of religion at Syracuse University is distinctive in its focus on the category "religion" as an intellectually provocative and problematic concept rather than simply as a descriptive, institutional, or phenomenological label. The department takes the following two premises as fundamental to its educational program: 1) study of religion must be interdisciplinary, and 2) study of religion must investigate the material, textual, historical, and cultural dimensions of religions as well as the theories used to produce and analyze them.

The Department offers three concentrations in the following interrelated areas in the study of religion. Each concentration gives sustained attention to religion, theory, bodies, gender and materiality.

COMMUNITIES AND IDENTITIES explores religion and spirituality in modern societies, both local and global, through the lenses of anthropology of religion and history of religions.

CRITIQUE, IMAGE AND POLITICS explores how religions shape and are shaped in aesthetics, ethics, psychology, sociology, philosophy, and political and culture theory.

TEXTS AND CONTEXTS explores literary and performative expressions of religion, including scriptures, through the lenses of history, philosophy, literary theory, and rhetoric.

Students are admitted to graduate study in the Department of Religion to conduct innovative and interdisciplinary research in one concentration and one traditional or regional religious culture. Once admitted, they may select a secondary concentration and/or religious cultures.

Currently the department can support study of the following traditional or regional religious cultures:

- African American
- American
- Buddhist
- Christian
- East Asian
- Hindu
- Indigenous (the Americas)
- Jewish
- Middle Eastern
- Muslim
- South Asian

Students must follow their concentration's

curriculum throughout their course work. They will also be encouraged to take course work in other concentrations and other departments, as appropriate for their research interests and as approved by their advisor. They must also take the two-semester seminar on theories and methods in the study of religion (REL 601-603).

### M.A. in Religion

The student seeking the M.A. in religion must complete a minimum of 30 credits of graduate study; 27 of which will be taken in regularly-scheduled religion graduate courses or seminars, and including no more than nine credits in advisor-approved courses offered outside the department. Students must take the departmental seminar in their concentration in each of their first three semesters. Students must also enroll in REL 601 and 603 during their first two semesters, and then pass a proficiency exam in theories of religion at the end of the second semester in the M.A. program. Additionally, students must earn three thesis credits by producing and orally defending a thesis. Competence in one language other than English must be demonstrated before the beginning of the third semester of study.

### Spanish Language, Literature and Culture, MA

Alicia Ríos  
323B HBC  
315-443-5379

The M.A. in Spanish language and literature is designed to meet a variety of student goals. The program provides students with thorough preparation for further study at the doctoral level. It also meets the needs of students for whom the master's degree is a terminal degree and who wish to pursue job opportunities in areas where critical thinking, leadership qualities, and clear, persuasive communication are valued, especially when a superior knowledge of Spanish language and culture is called for.

The M.A. program provides all students with an intensive and balanced introduction to the literature and culture of the Hispanic world, from the pre-Columbian period to the present. Students may take courses in the Renaissance and Baroque periods in Spain and Latin America, the literatures and cultures of contemporary Spain, the Caribbean and Southern Cone of Latin America, and Hispanic linguistics. In addition to the traditional coverage of literary periods, genres, and major authors, students are introduced to a variety of current theoretical and methodological approaches and to the orientations of contemporary theory. Those students interested particularly in linguistics may study general linguistics as well as Hispanic linguistics in the department.

## GRADUATE COURSE CATALOG

In the M.A. program students work to improve proficiency in the use of the Spanish language. All but three credits of coursework must be taken in Spanish and students have ongoing opportunities to develop their reading, writing, speaking, and listening skills at a professional level. The program also permits students to study abroad in a Spanish-speaking country.

The M.A. program provides students with thorough training in research, including the scholarship of discovery, application, dissemination, and teaching. The program enables students to become proficient and discriminating in the use of scholarly resources available at libraries and via the Internet.

Students are prepared to be effective and committed language instructors. They acquire computer skills relevant to scholarship in the areas of literary criticism and language instruction. They have the opportunity to obtain the Certificate in University Teaching through participation in the Future Professoriate program.

### Program Requirements

Students must complete 33 credits above the bachelor's degree for the Spanish master's. With Spanish faculty approval, up to three of these credits may be taken outside the Spanish program in a related field of study. SPA 601 - Literary Theory and Research Methods is required of all students.

All students must complete a seven-part M.A. qualifying exam and oral defense to graduate from the program. Exceptional students may choose to write an M.A. thesis in addition to the exams. Students who choose to write a thesis may register for up to three thesis credits and may be exempt from the one exam area most closely related to the thesis.

### Speech Language Pathology, MS

Chair:  
Karen A. Doherty, Ph.D.  
621 Skytop Road, Suite 1200

### Contact:

Phone: 315-443-9637  
Email: [csd@syr.edu](mailto:csd@syr.edu)

### Faculty

Karen Doherty, Kimberly Lamparelli, Soren Lowell, Linda Milosky, Joseph Pellegrino, Jonathan Preston, Ellyn Riley, Victoria Tumanova and Kathy Vander Werff, plus adjunct instructors for specialty areas including: Bonnie Hulslander, Eileen Marrinan, Carolyn Tamayo, and Lauren Westby.

Emeritus Professors, Mary Louise Edwards, Janet Ford and Raymond Colton

### Clinical Faculty:

Megan Leece, Anita Lightburn, Meghan Lister, Sue Ellen Maxfield, Ramani Voleti, Nicole Huggler, Tara Jones, Lauren Westby

### Program Description:

The clinical graduate programs in speech-language pathology and audiology at Syracuse University are nationally ranked, accredited programs with a long history of excellence. While pursuing a speech-language pathology or audiology degree, students have the opportunity to work with researchers in state-of-the-art laboratories and to learn from master clinicians in the areas of speech, language, and hearing. In addition, the location of the University provides students opportunities to gain clinical experience in diagnosis and treatment with a wide variety of clinical populations.

### Master of Science Speech-Language Pathology

The M.S. program in speech-language pathology provides both substantive knowledge and practical experience through a carefully selected sequence of academic study, clinical practice, and research training. Students are prepared for a professional career in diagnosis and management of individuals with speech and language disorders. The typical master's degree program for a student with a background in communication disorders ranges from 45 to 53 credits and requires a minimum of four semesters and one summer. Students with undergraduate majors other than communication disorders need additional coursework. During the final semester, all students must pass a comprehensive examination or complete a master's thesis.

Completion of the master's program provides students with the academic and practicum qualifications for the certificate of clinical competence from the American Speech-Language-Hearing Association and for New York State licensure in speech-language pathology. Graduates may also fulfill the requirements for New York State teacher certification as a Teacher of Students with Speech and Language Disabilities.

### Clinical Practice:

Students in speech-language pathology participate in a wide range of diagnostic and therapy experiences under the direct supervision of faculty and clinical staff. After obtaining at

least 50 hours of on-campus clinical practicum in the department's Gebbie Speech-Language-Hearing Clinic, students also complete two off-site clinical experiences. These externship placements provide students with experience working in the field under the supervision of a certified speech-language pathologist. Placements include public schools, preschool programs, hospitals, rehabilitation centers, nursing homes, private clinics, and special education programs.

### Accreditation:

The master of science program in speech language pathology is accredited by the Council on Academic Accreditation of the American Speech Language Hearing Association.

### Facilities:

The CSD department and the Gebbie Speech-Language-Hearing Clinic are located at 621 Skytop Road, on South Campus.

### Admission:

Admission occurs once per year for fall entry. Applicants must complete a common application and a supplemental application by January 1 for fall admission consideration. See our website for links to the two online applications: [http://csd.syr.edu/admissions\\_info/How-To-Apply.html](http://csd.syr.edu/admissions_info/How-To-Apply.html)

We also require GRE exams, undergraduate transcripts, and three letters of recommendation as part of the application. The minimum undergraduate GPA is 3.0, however, to be competitive it should be 3.5 or higher. The minimum GRE scores for consideration are: Verbal=145, Quantitative=146, and Writing=3.5. Additionally, international students must score a minimum of 105 on the TOEFL exam.

### Financial Support:

All applicants are considered for departmental graduate scholarships and assistantships during the admissions process.

### Facilities:

The CSD academic department and Gebbie Speech Language Hearing Clinic are located at 621 Skytop Road on South Campus.

### Degree requirements:

The master's degree requires 45-53 graduate credits for students with a Bachelor's degree in Communication Sciences and Disorders (depending on background coursework) or 72-



## GRADUATE COURSE CATALOG

76 credits for students with no CSD background coursework.

### Transfer Credit:

Students may petition to transfer up to 12 graduate credits from another university into the Master of Science program.

### Part-time Study:

Part time study is not available in the Master of Science program.

### Satisfactory Progress:

A student must graduate with a minimum GPA of 3.0. Students with an academic GPA of less than 2.6 at the end of the first semester in the degree program, or an academic or clinic GPA of less than 3.0 at the end of the first academic year, may be asked to leave the program.

### Doctorate

### Audiology, AuD

### Chair

Karen A. Doherty, Ph.D.  
621 Skytop Road, Suite 1200

### Contact:

Phone: 315-443-9637  
Email: [csd@syr.edu](mailto:csd@syr.edu)

### Faculty

Karen Doherty, Joseph Pellegrino, Beth Prieve, Kathy Vander-Werff, plus adjunct instructors for specialty areas including: James Feuerstein, Lindsay Kurek, Trista Channels, Sarabeth Wojnowicz and Lisa Lamson.

### Clinical Faculty:

Tammy Kordas, Kristen Kennedy

### Program Description:

The clinical graduate programs in speech-language pathology and audiology at Syracuse University are nationally ranked, accredited programs with a long history of excellence. While pursuing a speech-language pathology or audiology degree, students have the opportunity to work with researchers in state-of-the-art laboratories and to learn from master clinicians

in the areas of speech, language, and hearing. In addition, the location of the University provides students opportunities to gain clinical experience in diagnosis and treatment with a wide variety of clinical populations.

### Doctor of Audiology (Au.D.)

The department offers a clinical doctorate program in audiology culminating in the Doctor of Audiology (Au.D.) degree. The four-year program requires a student to complete 67 credits of academic coursework and 25 clinical practicum credits. The general educational objectives of the Au.D. program of study are to: (1) prepare audiology practitioners who are well-grounded in the basic sciences; (2) provide didactic coursework and supervised clinical practicum experiences necessary to enable students to develop competencies in the areas outlined by ASHA (Foundations of Practice, Prevention and Identification, and Evaluation and Treatment), and (3) expose students to research in an effort to develop skills that will allow them to use evidence-based approaches to clinical practice.

Any student holding a baccalaureate degree from an accredited college or university in this country, or its equivalent in a foreign institution, will be eligible for the Au.D. program in audiology. Potential students need not have an undergraduate degree in the field of speech and/or hearing sciences. However, in order to comply with ASHA standards, all students will need to take or show evidence of having taken coursework in math, science, social science, basic human communication processes, and speech/language disorders. If a student has not taken any of these courses as an undergraduate and needs to take them as part of the graduate program, then it may add to the length of the student's program.

### Clinical Practice:

Students will have a wide variety of clinical experiences. They will begin work in the Gebbie Speech-Language-Hearing Clinic, where they will receive maximum supervision. Later in the program they will be placed at one of our local extern sites, which include clinical rotations in hospitals, private-practices, rehabilitation centers, and schools in the Syracuse area. We have extern sites located in less populated areas that serve more rural communities and other sites that are based in large metropolitan areas.

Students are not only exposed to a variety of diagnostic and rehabilitative modalities, but also have opportunities to observe procedures such as otologic surgeries and neuroimaging. In the fourth year, students will be engaged in a full-time clinical externship. At the conclusion of their academic and local clinic work, each student must pass an examination designed to

comprehensively and intensively assess his/her academic and clinical preparation.

### Accreditation:

The Doctor of Audiology (Au.D.) degree program in audiology is accredited by the Council on Academic Accreditation of the American Speech Language Hearing Association. Facilities:

The CSD department and the Gebbie Speech -Language-Hearing Clinic are located at 621 Skytop Road, on South Campus.

### Admission:

Admission occurs once per year for fall entry. Applicants must complete a common application and a supplemental application by January 1 for fall admission consideration. See our website for links to the two online applications: [http://csd.syr.edu/admissions\\_info/How-To-Apply.html](http://csd.syr.edu/admissions_info/How-To-Apply.html)

We also require GRE exams, undergraduate transcripts, and three letters of recommendation. The minimum GPA is 3.0, however, to be competitive it should be 3.5 or higher. The minimum GRE scores for consideration are: Verbal=145, Quantitative=146, and Writing=3.5. Additionally, international students must score a minimum of 105 on the TOEFL exam.

### Financial Support:

All applicants are considered for departmental graduate scholarships and assistantships during the admissions process.

### Facilities:

The CSD academic department and Gebbie Speech Language Hearing Clinic are located at 621 Skytop Road on South Campus.

### Degree Requirements:

The program is made up of 92 graduate credits.

### Transfer Credit:

Students may petition to transfer up to 12 graduate credits from another university into the Doctor of Audiology program.

### Part-time Study:

Part time study is not available in the Doctor of Audiology program.

### Satisfactory Progress:

## GRADUATE COURSE CATALOG

A student is required to graduate with a minimum GPA of 3.0. Students with an academic GPA of less than 2.6 at the end of the first semester in the degree program, or an academic or clinic GPA of less than 3.0 at the end of the first academic year, may be asked to leave the program.

### Audiology, AuD/PhD

#### Chair

Karen A. Doherty, Ph.D.  
621 Skytop Road, Suite 1200  
315-443-9637

#### Contact:

Phone: 315-443-9637  
Email: csd@syr.edu

#### Faculty

Karen Doherty, Joseph Pellegrino, Beth Prieve, Kathy Vander Werff, plus adjunct instructors for specialty areas including James Feuerstein, Lindsay Kurek, Trista Channels, Sarabeth Wojnowicz and Lisa Lamson.

#### Clinical Faculty:

Tammy Kordas, Kristen Kennedy

#### Au.D./Ph.D. Dual Degree

The Department of Communication Sciences and Disorders offers an Au.D./Ph.D. degree for those students interested in receiving both a professional doctoral degree (Au.D.) and a research doctoral degree (Ph.D.). The professional doctoral program is designed to meet the current requirements for the ASHA Certificate of Clinical Competence. The research doctoral degree (Ph.D.) is designed for students interested in a traditional Ph.D. program that focuses on research and prepares students for careers in teaching and research.

Students must be accepted and enrolled into the Au.D. program at Syracuse University prior to applying to the dual program (Au.D./Ph.D.). Application to the Au.D./Ph.D. program may only be made after successful completion of the first year of the Au.D. program.

Students who are interested in the Au.D./Ph.D. should contact a faculty member in their area of research interest. Sponsorship of the student by a faculty member must be agreed upon prior to the time of enrollment in the dual program. The Au.D./Ph.D. is a 110 credit program, which allows students to pursue both their clinical training and their research training in a rigorous, intensive

and streamlined program. It is anticipated that a student can complete the dual degree program in a minimum of 6 years of full-time study.

In addition to fulfilling all the Au.D. program requirements, students completing the dual degree program will complete a guided research experience early in the program culminating in a submitted publication. Au.D./Ph.D. candidates must pass a pre-qualifying exam at the end of their first year in the dual program and qualifying exams at the end of their coursework. These academic and research experiences lead to the dissertation, which typically is begun in the fourth year of study.

#### Admission requirements:

All candidates for the dual degree must first be admitted to and complete the first year of the Au.D. program. Candidates for admission to the dual degree program should possess a bachelor's degree with a GPA of 3.5 or higher on a 4.0 scale in the last 60 semester credits of their undergraduate degree. A minimum GPA of 3.5 in the candidate's graduate coursework is also required. In addition, the candidate should have obtained a minimum percentile score of 40% in the Verbal section (raw score  $\geq 149$ ), 50% in the Quantitative section (raw score  $\geq 153$ ), and a 4.0 in the Writing section on the Graduate Record Examination taken within the last 5 years. In order to be admitted to the Ph.D. portion of the program, a CSD faculty member must agree to initially mentor a student. Therefore, prospective students must discuss their research interests with a faculty member of their own choosing in order to determine if these interests could be met within the department.

#### Financial Support:

All applicants are considered for departmental graduate scholarships and assistantships during the admissions process.

#### Facilities:

The CSD academic department and Gebbie Speech Language Hearing Clinic are located at 621 Skytop Road on South Campus.

#### Degree Requirements:

The dual program has 110 graduate credits.

#### Audiology, PhD

#### Chair

Karen A. Doherty, Ph.D.  
621 Skytop Road, Suite 1200  
315-443-9637

#### Faculty

Karen Doherty, Beth Prieve, Kathy Vander Werff

#### Doctor of Philosophy in Audiology

The Ph.D. program in audiology consists of academic, research, and clinical experiences, with an emphasis on basic and applied science. Sponsorship of the Ph.D. student by a faculty member must be agreed upon prior to the time of enrollment. Interested students should contact the department to match with a faculty sponsor prior to applying.

Coursework for the Ph.D. degree in Audiology is individually designed. It may include courses within the Audiology/Communication Sciences and Disorders curriculum as well as a variety of courses in complementary areas such as psychology, engineering, computer science, statistics, sensory processes, neuroscience and gerontology. An additional specialty area of concentration may be obtained in some of these areas, such as in the Interdisciplinary Neuroscience Graduate Program or as part of the Aging Studies Institute. Each student's program of study will be uniquely tailored to their interest and research areas.

The Ph.D. degree requires a minimum of 83 credits beyond the bachelor's degree. Students begin their research experiences early in their programs and are mentored in faculty laboratories by completing a guided research experience in the first year, culminating in a submitted research paper. All Ph.D. candidates must pass a pre-qualifying exam at the end of their first year of full-time study and qualifying exams at the end of their coursework. These academic and research experiences lead to the dissertation, which is typically begun in the third year. The Ph.D. program is typically completed in 4-5 years of full-time study.

#### Admission Requirements:

Candidates for admission to the Ph.D. degree should possess a bachelor's degree with a GPA of 3.5 or higher on a 4.0 scale in the last 60 semester credits of their undergraduate degree. If a candidate has a Masters Degree or AuD, a minimum GPA of 3.5 in their graduate work is required. In addition, the candidate should obtain a minimum percentile score of 40% in the Verbal section, 50% in the Quantitative section,

## GRADUATE COURSE CATALOG

and a 4.0 in the Writing section on the Graduate Record Examination taken within the last 5 years. Acceptable TOEFL scores (105 Internet based) must also be submitted by applicants who are not native speakers of English. Three strong letters of recommendations and a personal statement indicating enthusiasm for pursuing research in the fields of Audiology or Speech Language Pathology will also be required when submitting application materials. In order to be admitted to the Ph.D. program, a CSD faculty member must agree to initially mentor a student. Therefore, prospective students must discuss their research interests with a faculty member of their own choosing in order to determine if these interests could be met within the department. The Ph.D. is a research degree and very little or no clinical training is offered. If a candidate is interested in obtaining such training, he or she should apply to the Master's program or AuD in the department.

### Biology, PhD

## Graduate Program

### Directors:

Steve Dorus, 315-443-7091  
sdorus@syr.edu

248 Life Sciences Complex

Jason Fridley, 315-443-3098  
fridley@syr.edu

448 Life Sciences Complex

Graduate Program Administrator

114 Life Sciences Complex  
315-443-9154

biology@syr.edu.

### Faculty

David M. Althoff, John M. Belote, Carlos Castañeda, Heather Coleman, Steve Dorus, Scott E. Erdman, Douglas A. Frank, Jason D. Fridley, Jannice Friedman, Anthony Garza, Paul Gold, Sarah Hall, James A. Hewett, Sandra J. Hewett, Donna Korol, George M. Langford, Katharine Lewis, Jessica MacDonald, Eleanor Maine, Susan Parks, Melissa Pepling, Scott Pitnick, Ramesh Raina, Mark Ritchie, Kari A. Segraves, Robert Silver, Roy Welch, Jason R. Wiles

The Department of Biology is committed to research-oriented graduate training of the highest quality. A wide variety of disciplines are offered within the areas of biochemistry, developmental biology, genetics, molecular and cellular biology, neurobiology, ecology, and evolution. Students may focus their graduate studies in Cell/Molecular Biology or in Ecology & Evolution, and some students may choose to address questions that span both of these major areas of research. Each

student's program is individually structured to provide the maximum flexibility in the choice of coursework consistent with high quality graduate scholarship.

The Department currently averages 40 full-time graduate students. About 75 percent of the students enroll directly following their undergraduate work; others come with a master's degree earned elsewhere.

Program graduates are encouraged to pursue postdoctoral training at established laboratories prior to accepting professional appointments. Most recent graduates have found employment in university and colleges, many after completing postdoctoral work. Others have found posts in government, industry, hospital laboratories, and in private research institutes.

### Admissions

Successful applicants generally have a minimum undergraduate average of B and high scores on the verbal, quantitative and writing tests of the Graduate Record Examinations (GRE).

Applicants must also have earned a B.S. or a B.A. degree and should have at least a minimal background in both physical and biological sciences, including the following: two years of biology, one year each of introductory chemistry, organic chemistry with laboratory, physics, and college level calculus. Although not required, a year of biochemistry is desirable for students interested in cell and molecular biology, and training in statistical analysis for all students.

Special consideration is given to students who have conducted undergraduate research and whose recommendations attest to their skills in the laboratory or field and promise in research. Applicants whose scholarly interests are confluent with those of our Graduate Faculty will also receive priority consideration.

### Ph.D. in Biology

The Ph.D. program requires a minimum of 48 credits of coursework and dissertation taken at Syracuse University. Students entering the department with a B.A. or B.S. will complete a minimum of 24 hours of formal coursework. Students entering with a master's degree will complete at least 18 hours of formal coursework, at least 3/4 of which must be numbered at or above 600. The distribution of coursework and dissertation credits will vary among students and will be based on evaluations by the student's Research Committee and the Graduate Committee. Students in the Ph.D. program must also pass a two-part (oral and written) qualifying examination by the end of the fourth semester.

A dissertation based on original research must be developed and successfully defended in

accordance with the rules and regulations of the Graduate School. The maximum expected time in residence is five years.

### Graduate Awards

The current minimum level of support for the 2015-2016 academic year is \$ 26,080. with additional summer support available, currently at the level of \$ 2,500. Given Syracuse's low cost of living, this is a comfortable income. Virtually all department graduate students are supported financially throughout their graduate career. Support typically comes in the form of a teaching assistantship and tuition scholarship during the academic year, with students able to conduct their research full-time during the summer. Students may also be supported by their faculty research advisor's external grants or by Syracuse University Fellowships. Applying to local and national programs for graduate fellowships is strongly encouraged.

### Research Facilities

Research facilities currently include AAALAC-accredited animal facilities, a research greenhouse, and local field experiment sites. Extensive facilities and instrumentation for carrying out modern biological research at the molecular, cellular, organismal, and population levels are available. Library holdings and computing facilities are readily accessible for student and faculty use. Our department is housed in the Life Sciences Complex, a 210,000-square-foot building with dedicated and outstanding research and teaching space for the life sciences.

### Chemistry, PhD

### Chair:

Jon Zubieta  
1-014 Center for Science and Technology  
315-443-4109, jazubiet@syr.edu

### Faculty

Philip N. Borer, Mark S. Braiman, Carlos Castañeda, Joseph Chaiken, Arindam Chakraborty, John D. Chisholm, Daniel Clark, James C. Dabrowiak, Robert P. Doyle, 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, Weiwei Zheng, Jon Zubieta

The Department of Chemistry is large enough to provide a broad range of graduate-level courses and research opportunities and yet small enough to foster close working relationships between

## GRADUATE COURSE CATALOG

students and professors. It includes 21 faculty, some 85 graduate students, 10 postdoctoral associates, and technical and secretarial staff. Programs of study include those for both M.S. and Ph.D. degrees, with research offerings in the areas of biochemistry, organic, inorganic, and physical chemistry, as well as those at the interface of these disciplines. An interdisciplinary program in structural biology, biochemistry, and biophysics is also available.

During the first year of graduate study, courses enable students to gain a sound theoretical foundation for their own research investigations. Students are encouraged to become actively involved in research projects as soon as possible.

### Ph.D. in Chemistry

All students in the department must satisfy course requirements that may vary depending on a candidate's background and areas of specialization; typically, six three-credit graduate level courses prove sufficient. A minimum of 48 graduate credits, is required for a Ph.D. degree in chemistry. Students must pass three of four qualifying breadth examinations given in biochemistry, inorganic, organic, and physical chemistry and maintain a GPA of 3.0 to progress as Ph.D. candidates. Doctoral students must pass an oral examination in April of their second year in order to advance to candidacy. This exam tests the students' understanding of their research problem, their familiarity with the relevant literature, and their competence with the appropriate background material and research tools. Candidates must submit a satisfactory dissertation and pass an oral examination on the dissertation and related topics.

### Graduate Awards

The figures associated with various appointments are based on 2015 - 2016 awards.

Syracuse University Graduate Fellowships provide stipends of \$24,310 (PhD) for nine months and tuition scholarships for a total of 30 credits for the academic year.

Graduate Teaching Assistantships, to support graduate study for students with superior qualifications, involve no more than 20 hours of teaching obligations per week during the academic year. They provide a stipend of \$24,152 and a graduate tuition scholarship for 24 credits per year.

Summer Teaching Assistantships supporting undergraduate classes offered during the summer sessions, and Summer Research Fellowships-offered to graduate students making strong progress in their studies and research, provide stipends from \$1,000 to \$5,000.

Graduate Research Assistantships provide

stipends over the academic year and summer from \$19,000.

### Facilities

The Center for Science and Technology near the main quadrangle of the Syracuse University campus provides space and facilities for chemistry faculty and graduate student research: glassblowing and electronic shops; millions of dollars of specialized equipment, including spectrometers, lasers, and other chemical instrumentation; computers and high-speed networks; and an automated X-ray diffractometer for structure determinations.

The Life Sciences Complex, located adjacent to the department of chemistry, provides research and teaching space for the departments of chemistry and biology, and helps foster interactions between the two departments. This building opened in fall 2008.

### Clinical Psychology, PhD

#### Contact:

Kevin Antshel, Ph.D.  
430 Huntington Hall  
kmantshel@syr.edu  
(315) 443-9450

#### 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, Christopher B. Miller, Leonard Newman, Tibor Palfai, Aesoon Park, Natalie Russo, Lael Schooler, Bradley Seymour, Laura VanderDrift, Peter A. Vanable and Corey White.

The clinical psychology training program at Syracuse University is a doctoral program designed to train students to be responsible, innovative, and scholarly psychologists. The program embraces the scientist-practitioner model, and a strong emphasis is placed on both research and clinical training. The program is accredited by the American Psychological Association.

### Admission

In making decisions about admission, the clinical faculty consider a student's grades, GRE scores, letters of recommendation, personal statement, and evidence of the hard work, interest, and motivation that is vital to success in graduate school. Experience in research is also looked

on positively. Applicants should have at least 18 credits of psychology, including a laboratory course and a statistics course. Recently admitted applicants have averaged higher than 1250 on the verbal + quantitative GREs and had higher than 3.5 undergraduate GPAs. The program does not discriminate on the basis of age, sex, race, ethnic origin, religion, or physical disability. Applications are considered for the fall term only, and the deadline for receipt of the COMPLETED application is December 1. The program receives about 180 applications per year for four to five openings. There are approximately 20 students in the program.

### Financial Assistance

The department makes a determined effort to offer each student financial support from several sources: graduate scholarships, teaching assistantships, research assistantships, clinical assistantships, and fellowships.

### Program Requirements

The Ph.D. requires at least 90 credits, including a 6-credit master's thesis and an 18-credit dissertation. Students must attend the University on a full-time basis and remain in residence until the 90 credits are completed. The required clinical curriculum includes coursework in clinical research methods, psychopathology (child and adult), assessment, and psycho-therapy, along with supervised clinical practica. The APA-required core curriculum also includes courses in the following areas: statistics and design, cognitive-affective, social, individual differences, biological, history and systems, professional ethics, and issues of cultural and ethnic diversity. The clinical curriculum includes 9 credits of electives. Students must pass a Ph.D. qualifying exam that includes a critical review of a substantive area in clinical psychology that is evaluated by members of the core clinical faculty. A full-time, one-year, APA-accredited internship is also required before the Ph.D. is awarded; this is usually completed in the fifth or sixth year. The internships carry stipends and may be completed at any APA-accredited agency in the United States or Canada.

### Psychological Services Center

The clinical psychology program is associated with the SU Psychological Services Center, which is a service delivery, training, and research facility that serves SU students and members of the Syracuse community. Services are provided to children, adolescents, and adults. The Psychological Services Center is staffed by a director, clinic secretary, and graduate students in clinical psychology and related fields. Supervision is provided by full-time clinical faculty and part-time adjunct faculty drawn from local hospitals

## GRADUATE COURSE CATALOG

and clinics. Supervisors vary in their conceptual approach to understanding and modifying behavior. A broad array of clinical services are offered, including individual, marital, family, and group therapy, as well as psychological evaluations and testing.

### College Science Teaching, PhD

#### Chair

Sharon Dotger  
101 Heroy Geology Lab  
443-2586

#### Faculty

Sharon Dotger, John W. Tillotson, Jason R. Wiles

The graduate programs in the Department of Science Teaching focus on contemporary theories, research paradigms, and instructional practices that advance the knowledge of science education through specialized preparation. The programs draw on the multiple resources of the University to prepare leaders in science education, ranging from the classroom teacher to the research specialist.

### Ph.D. in College Science Teaching

This program is for those who plan to teach undergraduate courses in the natural sciences in a junior college, liberal arts college, or university setting. The program leads to a Ph.D. in college science teaching and offers:

1. broad training concentrated in the natural sciences or engineering;
2. a combination of breadth, specialization, and integration in the sciences or engineering;
3. supervised college teaching experience in the candidate's science specialty, either at Syracuse University or at another college in the Syracuse vicinity;
4. seminars in curriculum development and methods of teaching science in higher education; and
5. research focused on the teaching and learning of science in the undergraduate environment.

Representatives from the Department of Science Teaching and the natural sciences comprise the doctoral committee which guides the student's graduate program. An advisor is selected during the first year of study in consultation with the program faculty.

### Admission

Applicants must meet the requirements for admission to the Graduate School and must hold a bachelor's degree in a science or engineering field or in science education. Typically, students have earned a master's degree in a science or engineering field prior to admission to the doctoral program.

#### Program Requirements

The degree requires a total of 90 credits, of which a minimum of 9 must be for the dissertation. At least 54 credits of graduate courses in science and science education beyond the bachelor's degree are also required. Programs are planned individually so that each student specializes and develops teaching and research competence in one or more fields.

The following courses, which constitute a foundation area, are also required:

- **SCE 614 - The Nature of Science in Science Education 3 credit(s)**
- **SCI 544 - Teaching of College Science 3 credit(s)**
- Higher Education

#### Research Tools Requirement

A research tools requirement must be satisfied by successfully completing a prescribed core of courses in research methods (12-15 credits). Students are admitted to doctoral candidacy only after successfully completing the following:

1. the research tools requirement;
2. the foundation area of 9 credits;
3. written and oral qualifying examinations.

#### Additional Information

The dissertation must focus on research addressing teaching and/or learning science in the undergraduate or graduate environment.

### Composition and Cultural Rhetoric, PhD

#### Contact

Eileen E. Schell  
239 H.B. Crouse Hall  
315-443-5146

#### Faculty

Lois Agnew, Patrick W. Berry, Collin G. Brooke, Krista Kennedy, Rebecca Moore Howard, Brice

Nordquist, Stephen Parks, Eileen E. Schell, Tony Scott

This program offers a doctoral degree in Composition and Cultural Rhetoric (CCR) situated in the Writing Program, a departmental unit devoted entirely to writing and rhetoric. Its nationally known undergraduate teaching program provides a laboratory for research and innovation. The independence of the CCR program allows focused study of the pedagogy and cultural practices of written language, yet facilitates multidisciplinary study and integrations. In addition to a core faculty and closely associated faculty affiliates, faculty consultants in other disciplines facilitate and advise on students' interdisciplinary studies, a required element of the program.

The goal of the program is to prepare students for careers blending scholarship, teaching, administration, and consulting on writing and rhetoric in academic, workplace, and community settings. Intellectual themes of the program include studying composition and rhetoric emphasizing social practices of literacy, rhetoric, and writing instruction; and conceiving written language as culturally and historically specific. Students are encouraged to develop disciplinary and interdisciplinary specializations such as writing program administration; cross-cultural literacy studies; professional, technical, and electronic communication; rhetorical history; or feminist studies.

### Admission

The program admits a class of four to six full-time students a year. Applicants should have satisfactorily completed a master's degree in a language-related or cognate discipline (counted as 30 credits) and demonstrated a strong commitment and talent in rhetoric and composition. In making decisions about admissions, the faculty considers an applicant's academic record, career plans and scholarly interests, GRE scores, a scholarly writing sample, and letters of recommendation. Prior teaching experience or practice in communication fields is desirable.

In addition to completing the regular application for graduate study, CCR applicants must submit an essay on their intellectual history and academic interests, as well as a statement on teaching interests and practical experience. Detailed instructions for tailoring the application to the CCR program may be obtained from the Graduate Coordinator, Writing Program, 239 H.B. Crouse Hall, Syracuse NY 13244-1160, 315-443-5146; or from the program's web site, [ccr.syr.edu](http://ccr.syr.edu).

### Degree Requirements

To earn the Ph.D., a student must complete a

## GRADUATE COURSE CATALOG

minimum of 45 credits beyond the master's degree (counted as 30 credits), for a total of 75 required credits. Of these, 36 credits are in required and elective courses. The program is designed to be completed in 4 years. Required credits are distributed as follows:

Students who enter with a master's degree in rhetoric and composition or have satisfactorily completed graduate courses in appropriate areas of study at Syracuse University or at other institutions may apply up to 12 previously earned credits to course requirements, based on a careful evaluation of their transcripts.

All students complete all required coursework and pass the qualifying exams. (See [ccr.syr.edu](http://ccr.syr.edu).) Students must complete a written dissertation that is a book-length work of scholarship and defend it *viva voce*.

### Core Courses: 18 Credits Required

- **CCR 611 - Composition Histories/Theories 3 credit(s)**
- **CCR 631 - Contemporary Rhetorics 3 credit(s)**
- **CCR 632 - Studies in Writing Pedagogy 3 credit(s)**
- **CCR 633 - Writing, Rhetorics and Technologies 3 credit(s)**
- **CCR 634 - Ancient Rhetorics 3 credit(s)**
- **CCR 635 - Advanced Research Practices 3 credit(s)**

### Electives: 18 Credits Required

A minimum of 9 credits must be in Composition and Cultural Rhetoric

- **CCR 636 - Feminist Rhetoric(s) 3 credit(s)**
- **CCR 638 - Advanced Creative Nonfiction 3 credit(s)**
- **CCR 651 - Language and Literacy 3 credit(s)**
- **CCR 711 - Advanced Theories and Philosophies of Rhetoric 3 credit(s)**
- **CCR 712 - Advanced Theories and Philosophies of Composition 3 credit(s)**
- **CCR 732 - Advanced Studies in Writing Curriculum and Pedagogy 3 credit(s)**
- **CCR 733 - Rhetoric, Composition, and the Digital Humanities 3 credit(s)**
- **CCR 744 - African American Rhetorics 3 credit(s)**
- **CCR 745 - Writing Program**

### Administration 3 credit(s)

- **CCR 746 - Queer Rhetorics 3 credit(s)**
- **CCR 747 - Authorship Studies 3 credit(s)**
- **CCR 751 - Social History of Rhetoric 3 credit(s)**
- **CCR 760 - Advanced Studies in Composition & Cultural Rhetoric: Selected Topics 3 credit(s)**

3 credits in doctoral readings (in preparation for qualifying examinations)

6-18 credits of dissertation

### Graduate Awards

Students are eligible to apply for the following awards (figures for graduate appointments represent 2011-2012 stipends). It is anticipated that all recipients who remain in good standing will continue to receive some form of financial support for up to four years of graduate study.

### Graduate Teaching Assistantships:

Offered to approximately four new students each year; nine months; no more than an average of 20 hours of work per week; includes a stipend of approximately \$16,500, tuition scholarship for 12 credits for the fall and spring semester, and 6 credits in the summer. Teaching assistants, appointed by the Writing Program, have full responsibility for 3 sections of writing instruction a year, are expected to attend regular staff meetings and professional development workshops. There is also an ongoing mentorship review of each teaching assistant's performance as a teacher.

### Summer Teaching:

One section offered to some graduate students based on teaching record and availability.

### Additional Information

For further details, contact the director or graduate coordinator, or visit the Composition and Cultural Rhetoric web site, [ccr.syr.edu](http://ccr.syr.edu).

### Earth Sciences, PhD

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

Graduate study in the Department of Earth Sciences offers students opportunities for field-based geological and geophysical research worldwide. Ongoing research in the Department is focused primarily in the areas of environmental geology/global change and tectonics/crustal evolution—two of the most rapidly developing areas of the earth sciences. The Department is housed in the William B. Heroy Geology Laboratory, which contains state-of-the-art analytical and computing facilities, modern well-equipped teaching spaces, and a dedicated Earth Sciences library. All of the faculty are engaged in research and teaching.

The Department typically has a combination of students pursuing either the M.S. or Ph.D. degree. Several of our faculty-led research projects are large collaborative, multi-institutional, multi-national programs that afford our graduate students opportunities to work in diverse parts of the world with teams of internationally recognized scholars. Department faculty and graduate students are currently pursuing field studies world wide.

## Admission

Incoming students are expected to have two semesters of the following courses: calculus, chemistry, and physics or biology. In addition, incoming students need at least three distribution courses in the Earth Sciences, such as: paleobiology, sedimentology, mineralogy, structural geology, tectonics, geochemistry, geophysics, climatology, paleoceanography, paleoclimatology, marine geology, and/or hydrogeology. Students are strongly encouraged to have participated in an approved summer field course or comparable field experience. Substitutions may be granted upon petition of the Department.

## Degree Programs

The Department offers programs of graduate study leading to the M.A., M.S., and Ph.D. Minimum requirements for each degree are an average GPA of 3.0 in major subjects and an overall average of 2.8.

Students who wish to continue graduate study toward a Ph.D. in Earth Sciences following a master's degree must submit a Syracuse University Graduate School application form, including letters of reference, to the Department.

## Ph.D. in Earth Sciences

72 total graduate credit hours are required.

Ph.D. students coming to the program with a M.S. may receive credit for up to 30 hours. An additional 42 credit hours are required. At least 12 of those 42 credit hours must be in graduate coursework, with the balance made up by dissertation credits.

Ph.D. students coming to the program without a M.S. must take at least 36 credits in graduate course work (the equivalent of 24 M.S. course work credits plus 12 Ph.D. course work credits). The balance of the 72 credits will be made up in dissertation credits.

Most students can satisfy the requirements within four years after completing the master's degree. The Ph.D. candidate must pass an oral qualifying examination and must give an oral defense of the dissertation.

## Graduate Awards

Graduate students are expected to pursue their studies energetically and to complete their advanced degree work without undue delay. Financial support typically will be given to a student for four semesters at the master's level or eight semesters in the Ph.D. program.

Graduate Scholarships Awarded to students with superior qualifications, provide, in most cases, full tuition for academic year.

## Graduate Teaching Assistantships:

Offered to some Graduate Scholarship recipients; no more than an average of 20 hours of work per week; 8.5 months; stipend in addition to tuition scholarship for up to 24 credits per year as needed.

## Graduate Research Assistantships:

Offered to some Graduate Scholarship recipients; no more than an average of 20 hours per week; 8.5 to 12 months; stipends variable in addition to tuition scholarship for up to 24 credits per year as needed.

## Syracuse University Graduate Fellowships:

Stipend for 8.5 months of full-time study; tuition scholarship for 15 credits per semester for a total of 30 for the academic year.

## Department Research Support:

The Department has various funds available to support graduate student travel and research.

## Facilities

The Heroy Geology Laboratory provides well-equipped laboratories and student study research offices. The Department houses state-of-the-art workstation-based seismic data processing, GIS, and image-processing facilities; first-class laboratories for U/Pb geochronology, 40Ar/39Ar thermochronology, light stable isotope geochemistry, (U-Th)/He dating, and fission track thermochronology. The Department also has a range of sample preparation facilities, clean labs, two electronmicroscopes for imaging and elemental analysis, a direct current plasmaspectrometer, ion-chromatograph and an array of field geophysical gear. A 16-unit Windows- and Macintosh-based computer cluster is available to all Department members. The Department also houses a dedicated 28,844 volume research library.

The University's location is central to diverse geologic terrain including the classic Paleozoic sedimentary rocks of the Appalachian plateau, the complex structures and metamorphic rocks of the Adirondack Mountains, the Canadian Shield, and Quaternary sequences in the Finger Lakes. The scope of departmental research is international.

## English, PhD

### Contact:

Claudia Klaver, Director of Graduate Studies, 401 Hall of Languages, 315-443-6133; or Christopher Kennedy, Director of Creative Writing, 401 Hall of Languages, 315-443-3755.

## Faculty

Crystal Bartolovich, Dorri Beam, Michael Burkard, Dymna Callaghan, Manan Desai, 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, 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 a range of graduate programs: the M.A. in English, the M.F.A. in Creative Writing, and the Ph.D. in English. The department welcomes students who plan to become writers and scholar/teachers, and

it makes a serious effort to tailor its programs to each student's interests. Classes are small, usually from 5 to 15 students, and there is ample opportunity for independent study and supervised research.

One of the department's greatest strengths is its faculty, which includes distinguished scholar-teachers and internationally known writers.

The graduate programs in English ask students to attain some coverage of literary periods, genres, and major authors, while also devoting substantial attention to those modes of theoretical inquiry that have disrupted and enlivened the study of literature in recent years. To that end our current course offerings represent both traditional approaches to English and important work in contemporary theory and cultural studies.

For more information about our graduate programs, degree and program requirements, course offerings, and specific application deadline dates, visit our department web site at <http://english.syr.edu/>

## Ph.D. in English

The doctoral program is intended for the most promising students entering with a B.A. or M.A., who all receive five years of support. This is a research degree, aimed primarily at those expecting to teach on the college level. The department has particular strengths in early modern literature, 18th and 19th-century British studies, American studies, and film, but includes other areas as well. Small proseminars and advanced seminars, designed to develop both breadth and depth of knowledge, offer students intensive intellectual engagement with members of the faculty. The faculty all share a strong interest in literary history and forms, critical theory, and cultural studies. About four students are admitted each year. Applicants should use the intellectual statement on the application for graduate study to describe, as fully and specifically as possible, the intellectual projects they wish to pursue.

## Requirements:

The formal requirements are 36 credit hours of coursework in English beyond the M.A. (54 credit hours of coursework for those entering with a B.A.); demonstrated competence in teaching; proficiency in a foreign language; a field exam of two parts: (a) a written test, and (b) a critical essay of 20-30 pages (students entering the program may, at the discretion of the Graduate Committee, have a part of the field examination requirement waived; this will be determined on a case-by-case basis.); a three-hour oral Ph.D. examination on two fields, to be taken after the third year of coursework, typically in the fall of the seventh semester (the first exam area will focus

## GRADUATE COURSE CATALOG

on the literary, critical, and/or cinematic/media texts of a major period, while the second exam area may focus on a particular topic, genre, or mode of inquiry); the prospectus of 10-20 pages and defense of an 18- to 30-credit dissertation.

### Courses:

ENG 631 - Critical Theory is a required part of students' coursework credit. Other courses are chosen from proseminars (ENG 630) and seminars (ENG 730). Occasionally, electives at the 800 level are offered. To fulfill the graduate proseminar requirement, students will need to take at least one proseminar in British Studies and one proseminar in American Studies. During the first two years of coursework, students will be required to take at least three graduate proseminars and three graduate seminars, in addition to other electives that will comprise the minimum number of cumulative hours.

A Ph.D. student may take up to two courses outside of the English Department. In special cases, the student may petition the Graduate Committee to have courses from other departments, 500 level courses in English or independent studies in English count as part of the coursework credit required for the degree. The Graduate Committee will grant such petitions if the student demonstrates how these courses form an integral part of his or her study in English.

For a fuller description of course offerings, write to the graduate studies coordinator, or submit your request online at our web site: <http://english.syr.edu/>

### Graduate Awards

Teaching assistantships, include tuition scholarships for nine credits per semester (plus six credits in the summer) as well as stipends from \$14,535 to \$15,479. New teaching assistants at the M.A. level are assigned to courses offered by the Writing Program. Teaching assistants have full responsibility for three sections a year, are expected to attend regular staff meetings and workshops, and participate in a coordinating group. There is also an ongoing mentorship and review of each teaching assistant's performance as a teacher. New teaching assistants take a teaching practicum (WRT 670) closely related to their classroom duties.

Beginning Ph.D. students serve as teaching assistants in undergraduate lecture courses taught by full-time faculty in the English Department for two to three years. They receive ongoing mentorship and faculty review of their performance.

Advanced Ph.D. students teach independent courses of their own design in the English

department for one or two years, and participate in the Future Professoriate Project. This project offers mentored teaching and participation in teaching seminars every semester. Students who fulfill all the requirements receive at graduation a certificate in university teaching.

The department also competes for University Fellowships, awarded annually to outstanding applicants, and it offers 10 one-year creative writing fellowships. All fellowships include tuition scholarships for full-time study as well as stipends from \$14,250 to \$23,830.

### Experimental Psychology, PhD

Cognition, Brain, & Behavior

### Contact:

Amy Criss, Ph.D.  
477 Huntington Hall  
acriss@syr.edu  
(315)443-3667

### 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, Christopher B. Miller, Leonard Newman, Tibor Palfai, Aesoon Park, Natalie Russo, Lael Schooler, Bradley Seymour, Laura VanderDrift, Peter A. Vanable and Corey White.

The Cognition, Brain, & Behavior (CBB) program offers graduate training leading to a Ph.D. in Experimental Psychology. Research in the area is centered on using rigorous methods and theory to understand fundamental mechanisms underlying cognitive and neural processing. Research on cognitive and perceptual processes, such as visual perception, memory, attention, knowledge development, concepts and categories, problem solving, and decision making, contributes to our understanding of human behavior in individual and social environments and provides the structure on which to build applications to improve health and behavior.

Students receive research training at the forefront of Psychology. Students are assigned a primary advisor upon entry to the program and are required to actively participate in program of research supervised by a core faculty member through the duration of their program of study. Participation in these groups is designed to facilitate the development of research skills and professional development necessary for a career

in psychological science. Required milestones include completion of a first year research project, Master's proposal and defense, qualifying exam, and Dissertation proposal and defense.

### Program Requirements

The curriculum is designed to provide students with the essential coursework and laboratory research experience necessary for an academic or research career. The program of study for the Ph.D. in Experimental Psychology requires a minimum of 90 graduate credit hours, distributed as follows:

#### Statistics Core (6 credits):

- **PSY 655 - Experimental Design and Statistical Methods I 3 credit(s)**
- **PSY 756 - Experimental Design and Statistical Methods II 3 credit(s)**

#### Department Core (9 credits):

Three courses chosen from areas outside of the student's major area of study.

#### Methods Core (15 Credits):

- **PSY 611 - Proseminar Methods and Topics in Cognitive Psychology 3 credit(s)**
- **PSY 612 - Advanced Experimental Psychology 3 credit(s)**
- **PSY 854 - Statistical Analysis in Research Design 3 credit(s)**

#### Cognitive/Neural Bases (9 credits):

- **PSY 615 - Behavioral Pharmacology 3 credit(s)**
- **PSY 622 - Cognitive Psychology: Memory and Attention 3 credit(s)**
- **PSY 626 - Cognitive Neurochemistry 3 credit(s)**
- **PSY 730 - Seminar in Experimental Psychology 3 credit(s)**
- **PSY 737 - Experimental Psychology: Cognition and Human Aging 3 credit(s)**
- **PSY 777 - Advanced Cognitive Neuroscience 3 credit(s)**

#### Applications of Experimental Psychology (3 credits):

- **PSY 736 - Developmental Psychology: The Adult Years and Aging 3 credit(s)**



## GRADUATE COURSE CATALOG

### Independent Research, Other Recommended Courses (24 credits):

Students are encouraged to work closely with one or more faculty members in a research program, and to develop a program of research.

### Master's Thesis (6 credits)

### Dissertation (18 credits)

### Satisfactory Progress in the Program

Students are required to propose their master's thesis by September 30th of their second year, and to propose their doctoral dissertation by September 30th of their fourth year. Students having completed a research master's thesis elsewhere may not be required to do another thesis, but must undertake and complete a research project in their first year of study at Syracuse. Students must complete the master's thesis (or equivalent research project for students admitted with an earned master's degree) by May 30th of their second year. Students take a Ph.D. qualifying exam by May 30th of their third year with the Ph.D. dissertation proposal. Thesis and dissertation research is supervised by a committee consisting of three faculty members. The dissertation committee consists of the student's research advisor, who must be a member of the Cognition, Brain, and Behavior (C.B.B.) program, and two other faculty members. Students are expected to defend the dissertation by the end of their fifth year.

### Admissions and Financial Support

Admission to the graduate program in Cognition, Brain, and Behavior (C.B.B.) depends on the quality of the applicant's prior academic record, the applicant's career plans and research interests, and the applicant's GRE scores. Financial support is available for all well-qualified graduate students by means of research assistantships, teaching assistantships, or fellowships.

### Mathematics Education, PhD

### Chair

Uday Banerjee, 215 Carnegie, 315-443-1472.

### 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

The Department of Mathematics has 31 faculty members, with research interests in several areas of mathematics, statistics, and mathematics education, and approximately 55 graduate students. The department is housed in the recently renovated Carnegie Library building on the main campus quadrangle. Programs of study include those for M.S. and Ph.D. degrees in Mathematics, with or without a concentration in Statistics, and for M.S. and Ph.D. degrees in Mathematics Education.

### Ph.D. in Mathematics Education

This degree program is sponsored by the Graduate School in cooperation with the Department of Mathematics and the School of Education. The program includes not less than 90 credits of graduate work beyond the bachelor's degree, of which 9 to 24 are allocated for the dissertation. Students must meet the general requirements for the Ph.D. in education. Generally, a minimum of 48 credits is required in the major area, and a minimum of 33 credits in a minor area.

Formal acceptance into this program depends in part on the preliminary examination in the major area, taken no later than the semester in which 45 credits of graduate work have been completed. A research apprenticeship must also be completed.

Qualifying examinations, usually written and covering both the major and minor areas, are taken after the completion of approximately 70 credits of coursework.

All candidates take as a minimum the required courses in the master's program or transfer comparable credits from other institutions.

Further information is available from professors Joanna Masingila and Helen Doerr, 203 Carnegie Library.

### Research Areas

The department's Colloquium series features weekly lectures by mathematicians from all over the United States and abroad in many of the areas of mathematical research represented in the department. Furthermore several of the research groups organize regular research seminars. Colloquia and seminar schedules,

along with other information about our programs, courses, and events, can be found at math.syr.edu.

The following research groups are currently represented in the department.

### Algebra

Algebraic geometry (moduli spaces of curves, equations defining finite sets of points), commutative algebra (homological algebra, Cohen-Macaulay modules, characteristic  $p$ ), non-commutative algebra (representations of finite-dimensional algebras, homological algebra, group actions on non-commutative rings, Hopf algebras, enveloping algebras, non-commutative algebraic geometry). Faculty: Diaz, Kleiner, Leuschke, Miller, Quinn, Zacharia.

### Analysis

Complex analysis (several complex variables, pluripotential theory, complex dynamics, invariant metrics, holomorphic currents, Kähler geometry, rigidity problems), geometric analysis (PDE on manifolds, geometric flows), harmonic analysis, partial differential equations (linear and nonlinear elliptic PDE, boundary value problems on nonsmooth domains), geometric function theory (quasiconformal mappings, analysis on metric spaces). Faculty: Coman, Iwaniec, Kovalev, Lanzani, Onninen, Poletsky, Verchota, Vogel, Wylie, Yuan.

### Applied Mathematics

Numerical analysis (approximate solutions of elliptic PDE, generalized finite element methods and meshless methods), nonlinear variational problems (microstructure in nonlinear elasticity), applied and computational harmonic analysis (wavelets, digital image processing). Faculty: Banerjee, Lutoborski, Shen, Wang.

### Combinatorics

Combinatorics, graph theory, rigidity theory, symmetries of planar graphs, automorphism groups of graphs. Faculty: Graver.

### Geometry/Topology

Low-dimensional topology and knot theory (knot concordance, Heegaard Floer homology, homology theories for knots and links), K-theory (topological K-theory of Eilenberg-Mac Lane spaces, equivariant homotopy theory), Riemannian/Kähler geometry (Ricci curvature and topology, special metrics, geometric flows, rigidity problems). Faculty: Horn, Ucci, Wehrli, Wylie, Yuan.

### Mathematics Education

Secondary mathematics education, teacher learning, mathematical modeling, out-of-school

## GRADUATE COURSE CATALOG

mathematics practice, teacher development.  
Faculty: Doerr, Masingila.

### Probability

Interacting particle systems, Brownian motion, random walks, probabilistic methods in mathematical finance, martingales. Faculty: Cox, Griffin, McConnell.

### Statistics

Ranking and selection theory (applications in radar signal processing and two-stage procedures for multinomial problems), change-point problems, sequential analysis, longitudinal analysis, neural networks. Faculty: Chen, Kim, Volterman.

### Graduate Awards

Figures for graduate appointments represent 2015-2016 stipends.

### Graduate Scholarships:

Support graduate study for students with superior qualifications; provide, in most cases, full tuition for the academic year.

### Graduate

### Assistantships:

Offered to most Graduate Scholarship recipients; no more than an average of 15 hours of work per week; nine months; stipend ranging from \$17,244.26 to \$21,072.77 in addition to tuition scholarship for 24 credits per year. Additional summer support is generally available.

### Syracuse University

### Graduate Fellowships:

Tax-free stipends ranging from \$14,535 to \$24,310 for nine months of full-time study; tuition scholarship for 15 credits per semester for a total of 30 credits during the academic year.

### Facilities

The mathematics collection is held within the Carnegie Library and currently includes over 34,000 books. Many of the resources are online and include MathSciNet, Current Index to Statistics, Jahrbuch Database, MathEduc, ERIC, Scopus, and Web of Science, and over 350 mathematics journal subscriptions.

In addition to covering a broad range of pure and applied mathematics, the collection contains print and electronic resources in the history of mathematics, mathematics education, and

statistics. The following resources are available for student borrowing from the Carnegie Library service desk: TI graphing calculators, geometry kits, and course reserve books.

The computer lab in Carnegie Library, Room 208, has 16 computers, and a color printer with copying and scanning capability. The lab computers provide extensive software for statistical or data analysis, data base management, programming, and graphics. More information on computing services and the software available for students may be found on the ITS website: <https://its.syr.edu/computer-labs/index.html>.

The Carnegie Library contains over 210,000 volumes in the sciences, including biology, chemistry, engineering and computer science, library and information science, nutrition science and dietetics, public health, physics & astronomy, photography, technical arts, pure and applied mathematics, probability and statistics, mathematics education, and military and naval sciences. The historic Reading Room provides a quiet place for students to study and use library resources.

### Mathematics, PhD

### Chair

Uday Banerjee, 215 Carnegie, 315-443-1472.

### 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 Volterman, Yi (Grace) Wang, Stephan Wehrli, William Wylie, Yuan Yuan, Dan Zacharia

The Department of Mathematics has 32 faculty members, with research interests in several areas of mathematics, statistics, and mathematics education, and approximately 55 graduate students. The department is housed in the recently renovated Carnegie Library building on the main campus quadrangle. Programs of study include those for M.S. and Ph.D. degrees in Mathematics, with or without a concentration in Statistics, and for M.S. and Ph.D. degrees in Mathematics Education.

### Ph.D. in Mathematics

Doctoral students are expected to have completed the requirements for a master's degree in

mathematics or the equivalent. They then take at least 60 credits of additional work including up to 30 credits of dissertation credit and at least 30 credits of coursework. All students must demonstrate a mastery of English. Students must pass preliminary examinations in analysis and algebra and qualifying examinations in a major area and a minor area chosen (subject to some restrictions), from algebra, analysis, combinatorics, numerical analysis, statistics, and topology. Students who successfully complete the qualifying examination are granted the Master's of Philosophy (M.Phil.) degree in mathematics. Each Ph.D. student must defend in oral examination a dissertation that demonstrates ability to carry out independent investigation which makes an original contribution to mathematics. Mathematics students may write a Ph.D. dissertation under certain faculty members in computer science. Further information is available from Mark Kleiner, 215 Carnegie Building, or on our web site: [math.syr.edu](http://math.syr.edu).

### Research Areas

The department's Colloquium series features weekly lectures by mathematicians from all over the United States and abroad in many of the areas of mathematical research represented in the department. Furthermore several of the research groups organize regular research seminars. Colloquia and seminar schedules, along with other information about our programs, courses, and events, can be found at [math.syr.edu](http://math.syr.edu).

The following research groups are currently represented in the department.

### Algebra

Algebraic geometry (moduli spaces of curves, equations defining finite sets of points), commutative algebra (homological algebra, Cohen-Macaulay modules, characteristic  $p$ ), non-commutative algebra (representations of finite-dimensional algebras, homological algebra, group actions on non-commutative rings, Hopf algebras, enveloping algebras, non-commutative algebraic geometry). Faculty: Diaz, Kleiner, Leuschke, Miller, Quinn, Zacharia.

### Analysis

Complex analysis (several complex variables, pluripotential theory, complex dynamics, invariant metrics, holomorphic currents, Kähler geometry, rigidity problems), geometric analysis (PDE on manifolds, geometric flows), harmonic analysis, partial differential equations (linear and nonlinear elliptic PDE, boundary value problems on nonsmooth domains), geometric function theory (quasiconformal mappings, analysis on metric spaces). Faculty: Coman, Iwaniec, Kovalev,

Lanzani, Onninen, Poletsky, Verchota, Vogel, Wylie, Yuan.

## Applied Mathematics

Numerical analysis (approximate solutions of elliptic PDE, generalized finite element methods and meshless methods), nonlinear variational problems (microstructure in nonlinear elasticity), applied and computational harmonic analysis (wavelets, digital image processing). Faculty: Banerjee, Lutoborski, Shen, Wang.

## Combinatorics

Combinatorics, graph theory, rigidity theory, symmetries of planar graphs, automorphism groups of graphs. Faculty: Graver.

## Geometry/Topology

Low-dimensional topology and knot theory (knot concordance, Heegaard Floer homology, homology theories for knots and links), K-theory (topological K-theory of Eilenberg-Mac Lane spaces, equivariant homotopy theory), Riemannian/Kähler geometry (Ricci curvature and topology, special metrics, geometric flows, rigidity problems). Faculty: Horn, Ucci, Wehrli, Wylie, Yuan.

## Mathematics Education

Secondary mathematics education, teacher learning, mathematical modeling, out-of-school mathematics practice, teacher development. Faculty: Doerr, Masingila.

## Probability

Interacting particle systems, Brownian motion, random walks, probabilistic methods in mathematical finance, martingales. Faculty: Cox, Griffin, McConnell.

## Statistics

Ranking and selection theory (applications in radar signal processing and two-stage procedures for multinomial problems), change-point problems, sequential analysis, longitudinal analysis, neural networks. Faculty: Chen, Kim, Volterman.

## Graduate Awards

Figures for graduate appointments represent 2015-2016 stipends.

## Graduate Scholarships:

Support graduate study for students with superior qualifications; provide, in most cases, full tuition for the academic year.

## Graduate Assistantships:

Offered to most Graduate Scholarship recipients; no more than an average of 15 hours of work per week; nine months; stipend ranging from \$17,244.26 to \$21,072.77 in addition to tuition scholarship for 24 credits per year. Additional summer support is generally available.

## Syracuse University Graduate Fellowships:

Tax-free stipends ranging from \$14,535 to \$24,310 for nine months of full-time study; tuition scholarship for 15 credits per semester for a total of 30 credits during the academic year.

## Facilities

The mathematics collection is held within the Carnegie Library and currently includes over 34,000 books. Many of the resources are online and include MathSciNet, Current Index to Statistics, Jahrbuch Database, MathEduc, ERIC, Scopus, and Web of Science, and over 350 mathematics journal subscriptions.

In addition to covering a broad range of pure and applied mathematics, the collection contains print and electronic resources in the history of mathematics, mathematics education, and statistics. The following resources are available for student borrowing from the Carnegie Library service desk: TI graphing calculators, geometry kits, and course reserve books.

The computer lab in Carnegie Library, Room 208, has 16 computers, and a color printer with copying and scanning capability. The lab computers provide extensive software for statistical or data analysis, data base management, programming, and graphics. More information on computing services and the software available for students may be found on the ITS website: <https://its.syr.edu/computer-labs/index.html>.

The Carnegie Library contains over 210,000 volumes in the sciences, including biology, chemistry, engineering and computer science, library and information science, nutrition science and dietetics, public health, physics & astronomy, photography, technical arts, pure and applied mathematics, probability and statistics, mathematics education, and military and naval sciences. The historic Reading Room provides a quiet place for students to study and use library resources.

## Philosophy, PhD

## Contact

Director of Graduate 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, Hille Paakkunainen, Kara Richardson, Michael Rieppel, Nathaniel Sharadin, David Sobel, Laurence Thomas, Robert Van Gulick

The graduate program in philosophy offers study in the core areas of Anglo-American philosophy. It also offers work on the thought of some of the major figures of the history of philosophy, e.g., Plato, Aristotle, Hume, Leibniz, Spinoza, Descartes, and Kant. The department believes that each student's education should include some study of the history of philosophy whether or not the student's interests are primarily historical. The program is designed to prepare students both to teach philosophy and to contribute to the advance of philosophical inquiry.

There are generally 40 full-time philosophy graduate students in residence at Syracuse. Most full-time students in the Ph.D. program are awarded financial assistance in the form of a teaching assistantship, a fellowship, or a tuition scholarship.

## Ph.D. in Philosophy

A total of 63 credits of graduate work are required for the Ph.D. in Philosophy. Of these, 18 credits must be devoted to a doctoral dissertation which is a book-length work of scholarly research and 45 credits (15 3-credit courses) must be devoted to coursework, as specified below. For students entering with prior graduate work, no more than six credits of coursework may be transferred at the discretion of the Director of Graduate Studies.

1. Required proseminars: The following three writing-intensive proseminars must be taken in the first three semesters. There will be a minimum grade requirement of B; students may retake a course at most once; incompletes will be awarded only in the event of a genuine emergency. One proseminar may be waived at the discretion of the Director of Graduate Studies based on prior graduate work.

Each proseminar will focus on at least two major philosophical problems and will require students to read at least three major philosophers. Each proseminar will require several (5-6) short papers, and one longer paper which is revised by the student at least once following peer- and faculty-review.

- **PHI 617 - Proseminar:History of**

# GRADUATE COURSE CATALOG

## Philosophy 3 credit(s)

- **PHI 693 - Proseminar: Moral and Political Philosophy 3 credit(s)**
- **PHI 687 - Proseminar: Language, Epistemology, Mind and Metaphysics 3 credit(s)**

## Additional Information

A full description of the Ph.D. requirements can be found on the departmental web site

## Programs in Philosophy and Law

The Philosophy Department joins with the College of Law in offering an opportunity to pursue the J.D./M.A. Philosophy or the J.D./Ph.D. Philosophy degrees at the same time. See the departmental web site at <http://philosophy.syr.edu/GradStudiesinfo.htm> for a more detailed description of these programs.

## Physics, PhD

### Chair

A. Alan Middleton  
201 Physics Building,  
315-443-3901.

### 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

The Department of Physics has 31 faculty members, 21 postdoctoral research associates, and about 71 graduate students. The department is housed in the modern, six-floor physics building overlooking the University's main quadrangle. Facilities include state-of-the-art laboratory space, high-performance computing resources, and a machine shop, in addition to numerous specialized research facilities maintained by the research groups described below.

The department runs a weekly colloquium series that brings scientists from the United States and abroad to the University to present research and exchange ideas. There are also several research seminar series run by the different research groups. Colloquia and seminar schedules (along with other information about our program, courses, and events) can be found on the Internet

at [physics.syr.edu](http://physics.syr.edu).

## Degree Programs

All entering students must take a comprehensive examination. Those who perform unsatisfactorily may be required to take and pass remedial courses. However, any associated offer of financial support is not contingent upon passing this examination.

### Ph.D. in Physics

The Ph.D. degree is awarded to students who complete a minimum of 48 credits of graduate-level coursework, pass a two-part qualifying examination, pass a research oral examination on the student's proposed research, complete a written thesis based upon original research, and pass a thesis defense examination. The coursework includes completion of seven required courses:

- **PHY 581 - Methods of Theoretical Physics I 3 credit(s)**
- **PHY 614 - Graduate Laboratory 3 credit(s)** or
- **PHY 651 - Instrumentation in Modern Physics 3 credit(s)**
- **PHY 621 - Classical Mechanics 3 credit(s)**
- **PHY 641 - Advanced Electromagnetic Theory I 3 credit(s)**
- **PHY 661 - Quantum Mechanics I 3 credit(s)**
- **PHY 662 - Quantum Mechanics II 3 credit(s)**
- **PHY 731 - Thermodynamics and Statistical Mechanics 3 credit(s)**

### Approved Courses

Plus three approved courses. These may be advanced physics courses or other courses associated with the student's degree program. PHY 663 will not count as one of the three advanced courses.

### Additional Information

The student forms a committee of four faculty members who conduct a research oral examination based on the student's proposed research. Students must maintain a B average.

### Research Areas

The department has several strong research groups from which former students and postdoctoral associates have gone on to distinguished

careers at universities and in industry. Graduate work in physics presently encompasses the fields described below.

### Theoretical

## Condensed Matter

Research in this area includes ongoing studies of soft matter systems, dynamical systems, granular materials, and disordered matter. Faculty study the mechanics of mesoscopic constructed materials and biological tissues. The dynamics of active matter, including reconstituted biological systems and living cells and flocks, is an active area of study. The glassy dynamical behavior and statistical physics of materials with disorder is studied, using connections with advanced algorithms to model complex systems. Flow and plastic deformation in jammed and glassy solids (as in metallic glasses, foams and granular materials) are the object of research work. Bowick, Manning, Marchetti, Middleton, Schwarz. Three postdoctoral fellows.

Elementary Particles and Fields Quantum field theory and quantum gravity. Supersymmetry and its application to quantum gravity and models of Beyond Standard Model Physics. Strongly coupled dynamics via effective field theory and lattice field theory. LHC phenomenology and lattice QCD. Inflation, the generation of density perturbations, the origin of dark matter and dark energy, baryogenesis and the cosmic microwave background radiation. Particle cosmology. Armendariz-Picon, Catterall, Fan, Hubisz, Laiho, Watson. Two postdoctoral fellows.

## Computational Physics

Numerical studies of random surfaces, liquid membranes; study of quantum gravity as a theory of dynamically triangulated meshes; analysis of phase transitions and phase structure in disordered systems; gravitational waveforms from coalescences of astrophysical binary systems; gravitational wave data analysis; numerical simulations on parallel computers; connections between algorithms and physical principles; lattice quantum chromodynamics. Application of distributed processing to large scale quantum theory problems. Bowick, Brown, Catterall, Couvares, Fisher, Laiho, Marchetti, Middleton. One postdoctoral fellow.

### Experimental

## Astrophysics of the Interstellar Medium

## and Planetary Atmospheres

Laboratory studies of physical and chemical processes occurring in the interstellar medium and in planetary atmospheres, including formation of molecular hydrogen and hydrogenation and oxidation reactions on interstellar and/or planetary dust grain analogues. Vidali.

## Biological and Medical Physics

Experimental studies of photosensory transduction in single-celled model microorganisms, using nonlinear systems physiology approaches; bioinformatics; phylogenetics and molecular clocks; technology development for telemedicine and human-computer interfacing; image processing in nuclear medicine and magnetic resonance imaging. Forstner, Foster, Krol, Lipson, Movileanu, Saranak.

## High Energy Experimental Particle Physics

Experimental studies of the fundamental Electroweak and Strong interactions as manifested by the decays of beauty and charm quarks and production of other "exotic" phenomena. These studies are mostly preformed as part of the LHCb experiment at the Large Hadron Collider located at CERN in Geneva, Switzerland. We are primarily interested in how new physics phenomena manifests itself in CP violating and rare B meson decays. We also perform R&D leading to advanced silicon micro-pattern detectors, such as pixel and microstrip strip sensors, and their related readout electronics. The group is also active in neutrino flavor oscillation research, using neutrino beams created at Fermilab in Chicago, Illinois. Our neutrino program involves R&D on the development of liquid argon neutrino detectors, as proposed for use in the MicroBooNE and LBNE experiments. Members of the group have discovered several new particles, including the B, Ds, Y(1D) and made the first measurements of several very important decay modes of these objects. Artuso, Blusk, Mountain, Skwarnicki, Soderberg, Stone and Wang. Four postdoctoral fellows.

## Intermediate Energy Particle Physics

Use of spin degrees of freedom to study quantum

chromodynamics and the Standard Model at low energies. Experiments are underway at Stanford Linear Accelerator Center (SLAC) and at Thomas Jefferson National Accelerator Facility (JLAB). Holmes, Souder. 1 postdoctoral fellow

## Gravitational-wave Astronomy and Astrophysics

Detection of gravitational waves with the Laser Interferometric Gravitation Wave Observatory (LIGO). Development of advanced optics and precision metrology for interferometric detectors. Characterization of the LIGO detectors. Member of the LIGO Scientific Collaboration. Ballmer, Brown, Couvares, Fisher, Saulson. Three postdoctoral fellows.

## Semiconductors, Thin Films, and Solar Cells

Electronic and optical properties of unconventional semiconductors (amorphous silicon, porous titania, and silicon). Solar cell device physics. Thin-film growth (plasma, hot-wire). Hybrid organic-inorganic semiconductor devices. Surface physics (structure, kinetics, dynamics, and reactions). Schiff.

## Quantum mechanics and nanoscale devices

Superconducting devices and vortex dynamics Investigations of quantum coherence in nanoscale superconducting devices and vortex systems. Quantum effects in macroscopic systems. Nanofabrication of Josephson junctions and structured vortex pinning potentials. Low temperature measurements, including dilution refrigeration. Development of qubits for quantum computing. Applications of nanoelectromechanical systems. LaHaye, Plourde. Two postdoctoral fellows.

## Dark Matter

Development of improved ultra-low-radioactivity detectors and environments including detectors of Weakly Interacting Massive Particles, analysis of data from dark matter searches. Member of the Cryogenic Dark Matter Search and DEAP/CLEAN collaborations. Schnee. One postdoctoral fellow.

## Graduate Awards

Figures for graduate appointments represent 2015-2016 stipends.

Graduate Scholarships support graduate study for students with superior qualifications; provide, in most cases, full tuition for academic year.

Graduate Teaching Assistantships offered to most Graduate Scholarship recipients; nine months; stipend of \$23,460 (2015-2016) and tuition scholarship up to 24 credits (8 courses). Summer assistantships may be available. The assistant spends up to 20 hours per week engaged in teaching laboratory or recitation classes and in grading and preparation.

Graduate Research Assistantships no more than an average of 20 hours of work per week; a nine-month stipend of at least \$23,460 (2015-2016) and tuition scholarship up to 24 credits (8 courses). Summer assistantships may be available. The research assistant is normally paid for research work performed in conjunction with a faculty member and leading to the master's or doctor's dissertations.

Syracuse University Fellowships Tax-free stipends of \$24,310 (2015-2016) for nine months of full-time study; tuition scholarship for a total of 30 credits during the academic year.

## Religion, PhD

### Chair:

James W. Watts  
501 Hall of Languages  
315-443-5713

### Director of Graduate Studies:

M. Gail Hamner  
501 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

Graduate study in the Department of Religion at Syracuse University is distinctive in its focus on the category "religion" as an intellectually provocative and problematic concept rather than simply as a descriptive, institutional, or phenomenological label. The department embraces the following two premises as fundamental to its educational program: 1) in a postmodern and global age, any study of religion must be interdisciplinary, and 2) credible studies of religion must investigate the material, textual,

## GRADUATE COURSE CATALOG

historical, and cultural dimensions of religions as well as the theories used to produce and analyze them.

The graduate program offers incoming students an opportunity to forge a unique, creative, and rigorous program of study. It emphasizes the comparative and theoretical study of religion in its various traditions and forms, and keeps the hermeneutical task always to the fore. The program fosters interdisciplinary approaches, offering training in traditional and contemporary theories and methods in conjunction with substantive investigations of diverse religious traditions and topics. (See "Areas of Study" below.)

The current faculty in the Department of Religion engage in teaching and research in the following interrelated areas, areas whose interrelation represents the department's long-standing emphasis on innovative and interdisciplinary inquiry. Like the faculty, graduate students will engage at least two of these areas as they pursue their research.

### Theories of Religion

Focus on how the category of religion has been theorized as well as on methodologies in the study of religion; includes continental philosophy and theology of religion; the anthropology, sociology, and psychology of religion; history of religions; ethics; issues of globalization.

### Histories of Religion

Focus on historical, cross-cultural, and comparative studies of religion, with an emphasis on interrelations among religion, culture, and society; includes traditions such as Judaism, Christianity, Islam, Hinduism, Buddhism, and indigenous religions, and their development in geographical areas such as South Asia, Europe, the ancient Near East, the Roman Empire, and the Americas.

### Arts and Aesthetics of Religion

Focus on the artistic, literary, performative, and media-related expressions of religion; includes the study of scriptures, literature and literary theory, rhetoric, architecture, sacred space and time, material culture, and various media of popular culture such as music, folklore, film, journalism, and virtual technologies.

### Areas of Study

Students are required to gain competence in multiple historical periods, religious cultures,

as well as approaches to studying religion. We encourage students to make imaginative use of all available resources in the creation of their own distinctive programs of study. Each student must 1) develop expertise in a particular subject area, and 2) cross or transcend traditional boundaries of a discipline and sub-field in innovative ways. By training scholars to think across traditional academic boundaries, the program at Syracuse prepares students for exciting research and teaching opportunities in religion. Currently the department can support the following areas of study for students.

### Historical Periods

Ancient Near Eastern

Greco-Roman

Modern periods in:

- China
- Israel

Modern and Contemporary periods in

- the Americas
- Continental Europe
- South Asia

Religious Cultures

- African American
- American
- Ancient Near Eastern
- Buddhist
- Christian
- European/Continental
- Greco-Roman
- Hindu
- Indigenous (the Americas)
- Islamic
- Judaic
- South Asian

Approaches of Study

- Comparative Studies
- Contemporary, Historical, and Critical Theology
- Continental Philosophy
- Cultural Anthropology
- Cultural Studies: Film, Media, Journalism
- Ethics/Bioethics
- Feminist, Marxist, Postcolonial Critical Theory
- Gender Studies
- Globalization
- History of Religions

- Literary Studies
- Material Culture
- Philosophy of Religion
- Religion and Ecology
- Rhetorical Criticism
- Ritual and Performance Studies
- Scriptures Studies
- Social Scientific

### Ph.D. in Religion

The student seeking the Ph.D. in religion must hold the M.A. in religion (or its equivalent) and a minimum of 36 additional credits, 24 of which must be taken in the Department of Religion. 12 additional dissertation credits are required. The student must demonstrate competence in two languages of modern critical discourse, normally German and French, one before matriculation and the other before the beginning of the third semester of study.

The student is required to pass a set of four comprehensive examinations that must fall under the following headings:

1. a period or movement;
2. a person;
3. a text; and
4. a problem.

The dissertation and its oral defense are required.

### School Psychology, PhD

School Psychology\*

### Contact:

Tanya L. Eckert, Ph.D.  
430 Huntington Hall  
taeckert@syr.edu  
(315)443-3141

### Faculty

Kevin Antshel, Benita A. Blachman, D. Bruce Carter, Catherine A. Cornwell, Amy H. Criss, Jeanne Denti, Joseph Ditte, Tanya L. Eckert, Craig K. Ewart, Les Gellis, Richard M. Gramzow, Randall S. Jorgenson, Michael Kalish, Lawrence J. Lewandowski, Stephen Maisto, Brian K. Martens, Christopher B. Miller, Leonard Newman, Tibor Palfai, Aesoon Park, Natalie Russo, Lael Scholler, Bradley Seymour, Laura VanderDrift, Peter A. Vanable and Corey White.

The school psychology program at Syracuse University is accredited by the American Psychological Association (APA Office of Program Consultation and Accreditation, 750 First Street

## GRADUATE COURSE CATALOG

NE, Washington, D.C. 20002-4242; 202-336-5979). Completion of the program satisfies the current requirements for certification and licensure in New York State. The residency requirements for the program includes at least one year in full-time residence at Syracuse University and at least two years of full-time study at Syracuse University. A minimum of three years total of full-time study is required for the doctoral degree. Full disclosure of education/training outcomes and information allowing for informed decision-making can be found at our web site [http://psychology.syr.edu/graduate/School\\_Psychology\\_Program.html](http://psychology.syr.edu/graduate/School_Psychology_Program.html)

The school psychology program is built on the scientist-practitioner training model. Within this model, students are encouraged to be data-based problem solvers, to seek converging information when making professional decisions, and to evaluate the outcomes of their services. Students are engaged in three strands of training throughout the program: coursework, clinical service, and research. Consistent with APA guidelines, exposure to clinical service occurs in a graded fashion beginning in the student's first year. Students also have opportunities to assist with teaching and to teach courses of their own. Clinical placements occur in schools, hospitals, and agencies serving a broad spectrum of individuals with a wide range of school psychological services (e.g., assessment, consultation, intervention).

The program is committed to creating a supportive environment for student training and mentoring, and attempts to attract students from diverse backgrounds (i.e., locale, gender, ethnicity, culture). Graduates of the program take positions in academic and/or research institutions, public and private schools, hospitals, and mental health centers that serve the needs of children.

### Admission

Applications are considered for the fall term only, and the deadline for receipt of the completed application is December 1. The program receives approximately 70 applications per year for three to four openings. There are approximately 15 students in the program. Attrition rate in the program is less than 25 percent.

Most students entering the school psychology program have had an undergraduate major in either psychology or education, but the program is not restricted to these students. However, students with an undergraduate major in other fields may need more study in psychology and education than those who already have the appropriate foundation. Only full-time students are considered for admission. Students admitted to the program typically have a grade point average exceeding 3.0 and combined verbal and quantitative above the 50th percentile. Evidence of prior involvement in

independent research (e.g., paper presentations) as well as mental health or education-related service (e.g., supervisor evaluations) is usually documented. The School Psychology program is strongly committed to the recruitment of individuals from diverse ethnic and cultural backgrounds.

### Program Requirements

The program focuses on the integration of behavioral science and the application of psychological principles, with emphasis on direct and indirect service to children in the schools. Each semester students participate in a research group, a small informal seminar relating to the development and conduct of their research, progressing to the formulation and completion of the master's thesis (for those entering without a master's degree), and culminating in the doctoral dissertation.

The school psychology program is committed to providing high-quality doctoral training that prepares students to meet the needs of children in schools, hospitals, and other child-related settings. Students are trained to meet these needs directly through the assessment of learning and adjustment problems, individual and group counseling, and the design of school- and home-based intervention programs. Nine program goals guide training:

- a.) demonstrate a thorough knowledge of psychology and educational theory and research;
- b.) contribute to scholarship by applying research methods and tools of inquiry;
- c.) demonstrate skills in the foundations of school psychology practice;
- d.) provide a full range of psychological services in diverse and inclusive settings;
- e.) use assessment data on student learning to adapt instruction and design treatment;
- f.) engage in continuing professional growth;
- g.) provide collaborative consultation with school personnel, families and caregivers, and direct care staff;
- h.) adhere to professional, ethical, and legal standards governing the profession; and contribute to improve student learning and behavior.

The program incorporates a continuously integrated practicum-internship in the schools. Supervision of field experiences is provided by local psychologists, University faculty in the program, and adjunct faculty. All doctoral students are required to complete a full-time, one-year internship in a school system or in a combination of school systems and a clinic, institutional setting, or community agency. These are paid internships, with primary supervision (within jointly agreed upon guidelines) from the school system or agency involved.

The Ph.D. requires a minimum of 90 credits,

including up to 18 thesis/dissertation credits, as well as 6 credits of internship described above. Students usually take three courses in both the fall and spring semesters and two during the summer term. Consistent with the American Psychological Association's Guidelines and Principles for Accreditation of Programs in Professional Psychology and New York State's Regulations of the Commissioner of Education, students must successfully complete coursework required for the doctoral degree under three categories: (a) the School Psychology Core (foundation courses, assessment, consultation and supervision, and practica) (33 credits); (b) Educational bases (psychoeducational practicum and either special education, counseling, or program evaluation) (6 credits); and (c) the Psychology Core (statistics and research design, human development, history and systems, biological bases, individual differences, learning and cognition, and social bases) (27 credits). After completing coursework requirements, students become candidates for the doctoral degree. Formal advancement to candidacy is based on successful completion of the master's thesis (or its equivalent) and the comprehensive qualifying examination. This examination involves a written critical review of theory and research literature and a related research proposal in an approved area, an oral presentation of both the research and proposal, and an oral defense of the written and oral presentations. The student's written dissertation proposal must be defended before a dissertation committee. Following the research, the student must defend the completed dissertation in an oral examination. Student progress is reviewed each semester by the faculty, and written feedback is provided to students.

### Financial Assistance

All students are eligible for four years of funding which may include a stipend and a tuition scholarship for appointments as teaching or research assistantships; university fellowships, or clinical externships and internships. The department makes a determined effort to offer financial support to all graduate students.

### Note:

\*The official designation required by the New York State Board of Regents is School Psychologist.

### Social Psychology, PhD

### Contact:

Leonard Newman, Ph.D.  
430 Huntington Hall  
lsnewman@syr.edu  
(315)443-4633

# GRADUATE COURSE CATALOG

## 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, Christopher B. Miller, Leonard Newman, Tibor Palfai, Aesoon Park, Natalie Russo, Lael Schooler, Bradley Seymour, Laura VanderDrift, Peter A. Vanable and Corey White.

Since its creation in 1924, the program has embraced research as a central focus for the training of social psychologists. We train students with the skills necessary to function as applied or research scientists within one or more of the many sub-domains of social psychology. Our program explicitly adopts multidisciplinary themes to create a unique graduate training experience. The central focus of the social psychology program is the scholarship of the causes, consequences, and/or remediation of social challenges. Students are encouraged to pursue specific research interests that complement this broad programmatic theme.

## Admissions

The admissions committee consists of social psychology area faculty members. This committee makes decisions on the admission of applicants to graduate school; students who have or will soon complete either bachelor's or master's degrees, and who qualify in the judgment of this committee are admitted. To make this judgment, the committee considers a candidate's letters of recommendation, verbal and quantitative Graduate Record Examination (GRE) scores, previous grade record, personal statement, and whether the research interests of this student matches with a member of the faculty.

## Program Requirements

Consistent with the general goal of the program, students are strongly encouraged to become involved in research at an early point in their training by participating in faculty research projects and by carrying out individual research under the guidance of faculty members. Accordingly, all students obtain extensive training in research methods, both within a classroom setting and in actual research practice. Students earn both the master of science (M.S.) and doctor of philosophy (Ph.D.) degrees; the master's degree is a prerequisite for the Ph.D.

## Coursework

The courses offered in the program consist of intensive exposure to the prominent theories and

methods in social psychology. In order to qualify for the Ph.D., students are required to take 18 credits of theory-relevant coursework, which may consist of any combination of the following three-credit courses:

- **PSY 640 - Psychology of Gender 3 credit(s)**
- **PSY 674 - Advanced Social Psychology 3 credit(s)**
- **PSY 675 - Social Influences on Human Sexual Behavior 3 credit(s)**
- **PSY 676 - Group Processes 3 credit(s)**
- **PSY 677 - Social Cognition 3 credit(s)**
- **PSY 678 - Attitude Change 3 credit(s)**
- **PSY 693 - Advanced Personality 3 credit(s)**
- **PSY 775 - Seminar in Social Psychology 3 credit(s)** (when topic is appropriate)

## Methods Courses

Students must also complete 15 credits of the following methods courses, one of which must be PSY 679:

- **PSY 679 - Research Methods in Social Psychology 3 credit(s)**
- **PSY 691 - Meta-Analysis 3 credit(s)**
- **PSY 775 - Seminar in Social Psychology 3 credit(s)** (when topic is appropriate)
- **PSY 990 - Independent Study 1-6 credit(s)** (up to nine credits)

## Departmental Requirements

Finally, students are required to fulfill an additional 33 credits of departmental requirements including two required statistics classes. These requirements serve to ensure that the student's training is well-rounded and well-grounded in methodological fundamentals.

## Qualifying Examination for the Ph.D.

After a student completes the master's degree and all requisite coursework, she or he selects one of two possible options to qualify as a doctoral candidate. These options are (a) writing a literature review of an area within social psychology in a style of reviews published in the *Psychological Review* (and similar sources); or (b) preparing for a written examination based on a list of readings. Once a student has passed the qualifying examination, she or he may select a topic and complete a dissertation regarding it. The student defends her or his work before her

or his doctoral committee, including many social psychology faculty. It is recommended that the qualifying examination be satisfied during the third year of graduate school.

## Doctoral Dissertation

When a student passes the qualifying examination, she or he is a doctoral candidate and may select a topic on which to write a doctoral dissertation, which also must be defended before a committee composed of faculty members knowledgeable in the domain of the research. Before actually conducting the thesis research, the candidate defends a proposal for this work before this committee. It is recommended that the dissertation be completed during the student's fourth year of graduate studies.

## Other Requirements include:

- **PSY 997 - Masters Thesis 1-6 credit(s)**
- **PSY 999 - Dissertation 1-15 credit(s)**

## Funding

The social psychology program tries to find sources of support for all of its students. This support may consist of fellowships, teaching assistantships, or research assistantships. A number of such assistantships are available, and outstanding students are placed into competition for University-wide fellowships. In addition, students are encouraged to apply for available external funding.

## Speech Language Pathology, PhD

### Chair:

Karen A. Doherty, Ph.D.  
621 Skytop Road, Suite 1200  
315-443-9637

## Faculty

Soren Lowell, Linda Milosky, Jonathan Preston, Ellyn Riley, Victoria Tumanova plus emeritus Professors, Mary Louise Edwards and Raymond Colton

## Doctor of Philosophy Speech-Language Pathology

The Ph.D. program in Speech-Language Pathology consists of academic, research, and clinical experiences, with an emphasis on basic and applied science. Sponsorship of the Ph.D. student by a faculty member must be agreed upon prior to



## GRADUATE COURSE CATALOG

the time of enrollment. Interested students should contact the department to match with a faculty sponsor prior to applying.

Coursework for the Ph.D. degree in Speech-Language Pathology is individually designed. It may include courses within the Audiology/Communication Sciences and Disorders curriculum as well as a variety of courses in complementary areas such as psychology, engineering, computer science, statistics, sensory processes, neuroscience and gerontology. An additional specialty area of concentration may be obtained in some of these areas, such as in the Interdisciplinary Neuroscience Graduate Program or as part of the Aging Studies Institute. Each student's program of study will be uniquely tailored to their interest and research areas.

The Ph.D. degree requires a minimum of 83 credits beyond the bachelor's degree. Students begin their research experiences early in their programs and are mentored in faculty laboratories by completing a guided research experience in the first year, culminating in a submitted research paper. All Ph.D. candidates must pass a pre-qualifying exam at the end of their first year of full-time study and qualifying exams at the end of their coursework. These academic and research experiences lead to the dissertation, which is typically begun in the third year. The Ph.D. program is typically completed in 4-5 years of full-time study.

### Admission Requirements:

Candidates for admission to the Ph.D. degree should possess a bachelor's degree with a GPA of 3.5 or higher on a 4.0 scale in the last 60 semester credits of their undergraduate degree. If a candidate has a Master's Degree or AuD, a minimum GPA of 3.5 in their graduate work is required. In addition, the candidate should obtain a minimum percentile score of 40% in the Verbal section, 50% in the Quantitative section, and a 4.0 in the Writing section on the Graduate Record Examination taken within the last 5 years. Acceptable TOEFL scores (105 Internet based) must also be submitted by applicants who are not native speakers of English. Three strong letters of recommendations and a personal statement indicating enthusiasm for pursuing research in the fields of Audiology or Speech Language Pathology will also be required when submitting application materials. In order to be admitted to the Ph.D. program, a CSD faculty member must agree to initially mentor a student. Therefore, prospective students must discuss their research interests with a faculty member of their own choosing in order to determine if these interests could be met within the department. The Ph.D. is a research degree and very little or no clinical training is offered. If a

candidate is interested in obtaining such training, he or she should apply to the Master's program or AuD in the department.

### Structural Biology, Biochemistry, and Biophysics, PhD

#### Contact:

Liviu Movileanu  
201 Physics Bldg  
315-443-8078  
lmovilea@syr.edu

#### Faculty:

Biology: John Belote, Scott Erdman, Anthony Garza, Paul Gold, Eleanor Maine, Melissa Pepling, Ramesh Raina, John Russell, Roy Welch

Chemistry: Philip Borer, Mark Braiman, Rob Doyle, Bruce Hudson, Yan-Yeung Luk, Jon Zubieta

Forensic Science: Kevin Sweder

Physics: Mark Bowick, Martin Forstner, Kenneth Foster, Edward Lipson, Liviu Movileanu

The Ph.D. program is flexible and adaptable to individual needs. Students are admitted through one of the participating departments, (biology, chemistry, or physics) and choose their Ph.D. mentor in that department before transferring into the Program. The remainder of the student's course of study is planned with a graduate committee composed of members of the program, one of whom will be the student's thesis advisor.

#### Admission

A student wishing to do graduate work in structural biology, biochemistry, and biophysics should apply for admission through one of the participating departments (biology, chemistry, or physics). Applicants must meet the general requirements of the Graduate School. Students are normally expected to have an undergraduate major in biology, chemistry, or physics, and a minor in one or both of the other fields. Students who do not have the appropriate minors must make up background deficiencies by taking courses or independent study.

#### Graduate Awards

Graduate students may qualify for scholarships or for teaching or research assistantships available through individual departments, or for University Fellowships. All awards are made on a competitive basis.

### Facilities

There is a variety of nuclear magnetic resonance, microarray, x-ray diffraction, next-generation sequencing, and other instrumentation at Syracuse University and SB3 partner institutions, SUNY Upstate Medical University, and the SUNY College of Environmental Science and Forestry. There are also extensive computational facilities for biomolecular modeling and bioinformatics.

### Ph.D. in Structural Biology, Biochemistry, and Biophysics

This Ph.D. program is flexible and adaptable to individual needs. Students are admitted through one of the participating departments, (biology, chemistry, or physics), choose their Ph.D. mentor in that department, and must complete at least one year in their major department before transferring into the program. Students must be in good standing in their major department prior to transferring into the program and must maintain the requirements of the Graduate School throughout their graduate career. Subsequent to transfer, the remainder of the program is planned with a graduate committee composed of members of the program, one of whom will be the student's thesis advisor. This committee is also responsible for administering a qualifying examination and a dissertation defense, and for resolving issues that may arise during the student's graduate career. The graduate committee may require students to acquire breadth by taking graduate-level courses in areas outside their major concentration.

### Combined Degree

### African American Studies Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested

## GRADUATE COURSE CATALOG

undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### **Anthropology Secondary Teacher Preparation, BA/MS**

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### **Biology Secondary Teacher Preparation, BA/MS**

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### **Biology Secondary Teacher Preparation, BS/MS**

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### **Chemistry Secondary Teacher Preparation, BA/MS**

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### **Chemistry Secondary Teacher Preparation, BS/MS**

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### **Earth Science Secondary Teacher Preparation, BA/MS**

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### **Earth Science Secondary Teacher Preparation, BS/MS**

Combined Bachelor's/Master's Degrees in Earth Science and Secondary Science Education (Earth Science) Teacher Preparation Program

## GRADUATE COURSE CATALOG

### 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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Economics Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Economics Secondary Teacher Preparation, BS/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### English and Textual Studies Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Geography Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### History Secondary Teacher Preparation, BA/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### International Relations Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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,

## GRADUATE COURSE CATALOG

after all requirements are met - typically at the end of 5 years.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Latino-Latin American Studies Secondary Teacher Preparation, BA/MS

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@sy.edu](mailto:mrsarno@sy.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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Law/Forensic Science, JD/MA

#### Law/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 Arts and Sciences and the College of Law. A student who is admitted to one of these programs 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabboth@law.syr.edu](mailto:cabboth@law.syr.edu)).

### Law/Philosophy, JD/PhD

#### Law/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 should be directed to Professor Thomas McKay, Philosophy Department, 541 Hall of Languages (443-2536; [tjmckay@sy.edu](mailto:tjmckay@sy.edu)). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabboth@law.syr.edu](mailto:cabboth@law.syr.edu)).

### Mathematics Secondary Teacher Preparation, BA/MS

Combined Bachelor's/Master's Degrees in Mathematics and Secondary Education (Math) Teacher Preparation Program

#### Contact

Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@sy.edu](mailto:mrsarno@sy.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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Mathematics Secondary

### Teacher Preparation, BS/MS

Combined Bachelor's/Master's Degrees in Mathematics and Secondary Education (Math) Teacher Preparation Program

#### Contact

Marie Sarno, Teaching and Leadership Programs, 173 Huntington Hall [mrsarno@sy.edu](mailto:mrsarno@sy.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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Physics Secondary Teacher Preparation, BA/MS

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@sy.edu](mailto:mrsarno@sy.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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Physics Secondary Teacher Preparation, BS/MS

Combined Bachelor's/Master's Degrees in Physics and Secondary Science Education (Physics) Teacher Preparation Program

## GRADUATE COURSE CATALOG

### 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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Policy Studies Secondary Teacher Preparation, BA/MS

Combined Bachelor's/Master's Degrees in Policy Studies 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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Political Science Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Sociology Secondary Teacher Preparation, BA/MS

Combined Bachelor's/Master's Degrees in Sociology 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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Women's and Gender Studies Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Certificate of Advanced Study

### Arts Leadership Administration, CAS

### Faculty:

Shena Ashley, Assistant Professor  
Johann Comprix, Assistant Professor  
Dennis Kinsey, Professor  
Ernest Lathrop, Assistant Professor  
Mark Nerenhausen, Professor of Practice  
John Petosa, Professor of Practice  
Casey Sprock, Adjunct Professor  
Brenda Wrigley, Associate Professor

### Description:

The Arts Leadership Certificate Program is a 15-credit hour program for recent college graduates and experienced practitioners. Candidates acquire core skills to develop career options in allied fields or advance their careers in cultural leadership of for-profit or non-profit arts organizations in the visual and performing arts. The curriculum encompasses coursework in entrepreneurship and leadership; marketing and public relations; financial accounting and budgetary planning; operations; strategic planning and analysis; financial and audience development; education and outreach; and legal, ethical, and public policy issues in the arts.

### Admission:

Applicants must have a B.A. or B.S. degree from an accredited college or university and strong GRE test scores or be enrolled in an MA in process, and demonstrate knowledge of the arts or business management or both.

Required Application Documentation · A 500-word personal statement explaining the applicant's motivation for studying arts leadership. The essay should include the applicant's career goals and work experience, and how they have informed his or her decision to apply to the program. · Three

## GRADUATE COURSE CATALOG

(3) letters of recommendation · One (1) copy of official transcript(s) · The Graduate Record Examination (GRE) scores · Test of English as a Foreign Language (TOEFL) for international applicants.

### Requirements:

Students must maintain a Graduate School required minimum GPA of 3.0

Transfer credit may be considered on a case-by-case basis

Program may be pursued on a part-time basis

Limited financial support may be available

### Degree:

Certificate of Advanced Study in Arts Leadership

Total Credits: 15

## Econometrics, CAS

### Contact:

Pinyuen Chen (pinchen@syr.edu)

The application of statistics to economics is commonly called econometrics. Statistics and econometrics have become more closely associated as scholars and practitioners in both areas have learned from each other and adopted ideas learned in the other area. Given this convergence, a certificate offered by Syracuse University that requires knowledge of the contributions of both disciplines is both timely and appropriate.

### Certificate Requirements

To obtain the certificate a student must successfully complete

- **ECN 621 - Econometrics I 3 credit(s)**
- **ECN 622 - Econometrics II 3 credit(s)**
- **ECN 720 - Topics in Econometrics 3 credit(s)**
- **MAT 651 - Probability and Statistics I 3 credit(s)**
- **MAT 652 - Probability and Statistics II 3 credit(s)**

## European Union & Contemporary Europe, CAS

Margaret G. Hermann  
Professor of Political Science  
and Gerald B. and Daphna Cramer Professor of  
Global Affairs Director,

Moynihan Institute of Global Affairs

Office: 345 Eggers Hall

Telephone: 315-443-4022

Fax: 315-443-9085

E-mail: mgherman@maxwell.syr.edu

The Certificate of Advanced Study in the European Union (EU) and Contemporary Europe is available to students in all professional and doctoral programs at Syracuse University who are looking to supplement their degree with a strong foundation in this region's politics and culture or to prepare themselves for a career involving specialization in this region. In completing the certificate program, students are required to take at least 12 credit hours of study focused on the region, including one of the required courses and nine credits from a set of approved courses and/or approved other activities such as internships, independent study or capstone experiences. For more information, visit the program website:

[http://www.maxwell.syr.edu/moynihan/merc/Graduate\\_Certificate\\_in\\_the\\_EU\\_and\\_Contemporary\\_Europe/](http://www.maxwell.syr.edu/moynihan/merc/Graduate_Certificate_in_the_EU_and_Contemporary_Europe/)

### Admission:

Admission to this certificate program is open to all graduate students enrolled in Syracuse University interested in learning more about and acquiring a specialization in the European Union and contemporary Europe. Interested students are encouraged to interact with the director of the certificate program early in their tenure to develop a program of study as well as to complete the Graduate School's Internal Admission form enrolling in the program.

### Program Requirements:

Twelve credits in four courses must be earned to be eligible for the certificate. These must include:

The choice of one of the required courses:

- **PSC 756 - Politics of the European Union 3 credit(s)**
- **PSC 600 - Selected Topics 1-6 credit(s)** The EU and Beyond: Identity, Politics, and the New Europe \*
- **ANT 670 - Experience Credit 1-6 credit(s)** The Culture and Politics of Reconciliation in Central Europe \*\*
- **HUM 670 - The Culture and Politics of Reconciliation in Central Europe \*\***
- **SOC 670 - Experience Credit 1-6 credit(s)** The Culture and Politics of Reconciliation in Central Europe \*\*

### Elective Courses and/or Approved Other Activities

Nine credits from a set of elective courses and/or approved other activities such as internships, independent study, or capstone experiences.

### Electives:

- **ANT 629 - Transformation of Eastern Europe 3 credit(s)**
- **ANT 673 - Peace and Conflict in the Balkans: Anthropological Perspectives 3 credit(s)** or
- **PAI 730 - Problems in Public Administration 1-3 credit(s)**
- **ANT 701 - Seminar on Multilateral Peacekeeping 3 credit(s)** or
- **PAI 701 - Seminar on Multilateral Peacekeeping 3 credit(s)**
- **FRE 600 - Selected Topics 1-6 credit(s)** Contemporary France in Literature & Film \*
- **FRE 600 - Selected Topics 1-3 credit(s)**
- **GER 600 - Selected Topics 1-6 credit(s)**
- **HST 735 - Readings and Research in European History 3 credit(s)**
- **LAW 910 - Law in London: Clinical Internship 6 credit(s) \*\*\***
- **PHI 640 - Continental Philosophy of Religion 3 credit(s)** or
- **REL 660 - Continental Philosophy of Religion 3 credit(s)**
- **PAI 715 - Topics in Global Development 3 credit(s)** Issues in Global Economic and Financial Security \*\*\*\*
- **PAI 715 - Topics in Global Development 3 credit(s)** International Economic Negotiations \*\*\*\*
- **PAI 715 - Topics in Global Development 3 credit(s)** Statecraft and Smart Power in the Digital Era \*\*\*\*
- **PAI 727 - Responding to Proliferation of Weapons of Mass Destruction 3 credit(s)**
- **PAI 788 - Global Issues: Drugs, Crime and Terrorism 3 credit(s)**
- **PAI 716 - Economic Dimensions of Global Power 3 credit(s)** or
- **ECN 610 - Special Topics in Economics 3 credit(s)** Economic Dimensions of Global Power
- **PSC 769 - Comparative Parties and**

## GRADUATE COURSE CATALOG

### Politics 3 credit(s)

- **PSC 785 - Comparative Civil-Military Relations 3 credit(s)**
- **PSC 786 - Russian and Post-Soviet Politics 3 credit(s)**
- **PSC 788 - Political Leadership 3 credit(s)**
- **PSC 700 - Selected Topics 1-6 credit(s)**  
Crisis Management or
- **PAI 700 - Selected Topics 1-6 credit(s)**  
Crisis Management
- **PSC 600 - Selected Topics 1-6 credit(s)**  
European National and International Conflict: What Alternatives to Violence \*
- PSC 600 - Selected Topics 1-3 credit(s)  
European Human Rights \*
- **SPA 653 - Sinner and Saints in 19th and 20th Century Spanish Literature and Film 3 credit(s)**
- **SPA 658 - Narrative and Film in Spain (1940 to the Present) 3 credit(s)**

### Note:

- \*Offered during Summer at the University's Strasbourg Center in France.
- \*\*Offered during Summer in Strasbourg, Berlin, and Wrocław.
- \*\*\*Offered during Summer in London.
- \*\*\*\*Offered during Fall at the University's Washington, DC Center.

### Credits Towards the Certificate

In addition to these classes, students may also earn credits towards the Certificate in the following ways:

- Students can take a maximum of six-credit hours in any of the regional languages offered at the University at the 600 level. Turkish, Portuguese, and Polish are also considered regional languages in addition to those more generally considered when focusing on Europe.
- Students can take a maximum of three-credit hours for an internship experience in Europe or for the completion of a capstone course that focuses on a topic related to contemporary Europe or the EU (with the approval of the Director of the Certificate Program).

### Firearm and Toolmark Examination, CAS

### Contact:

Michael Sponsler, Sponsler@syr.edu

315-443-4880

### Faculty:

Robert Silver, James T. Spencer, Michael B. Sponsler, Kevin Sweder, Ulrich English

### Description:

This CAS is intended both for students who wish to become firearm and toolmark examiners and for newly hired examiners in need of training. A great need exists for training of firearm and toolmark examiners. Even after a candidate is hired into such a position, training of two years or more is typically needed before the new examiner can work independently on casework. This training comes at great expense particularly to smaller agencies, where efficiencies associated with the simultaneous training of multiple candidates cannot be achieved. This CAS, while not intended to fulfill all of the required training, can provide a useful start and/or supplement. The same courses may be counted toward a graduate degree at Syracuse University.

### Admission:

For students already admitted to Syracuse University as graduate students, an internal application for the CAS is required. For students not already at SU, the graduate school application with undergraduate transcript and one recommendation letter will be required, through which the applicant must show either that he or she holds a position for which the certificate is relevant or is aiming to obtain such a position and has a good undergraduate background.

### Requirements:

#### Gateway Course - 9 Credits Required

- **FSC 633 - Quality Assurance and Ethics 3 credit(s)**
- **FSC 661 - Firearms and Impression Evidence 3 credit(s)**
- **FSC 671 - Firearms and Impressions Evidence II 3 credit(s)**

#### Electives - 3 Credits Required

- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)** Light Microscopy
- FSC 640 - Special Topics in Advanced Forensics 3 credit(s) (approved topics only\*)
- **FSC 665 - Latent Prints 3 credit(s)**
- **FSC 667 - Forensic Photography 3**

### credit(s)

- **FSC 690 - Independent Study 1-6 credit(s)** or Internship in Forensic Science 1-6 cr.

### Note:

\*Relevant workshops will be run under FSC 640, and these will be identified as appropriate for use as electives in this program.

### Total Credit: 12

### Degree Awarded:

Certificate of Advanced Study in Firearm and Toolmark Examination

### Transfer Credit:

Limit of 3 transfer credits.

### Language Teaching: TESOL/TLOTE, CAS

Amanda Brown  
abrown08@syr.edu  
340 H. B. Crouse  
315-443-2244

### Faculty

Tej K. Bhatia, Amanda Brown, Mary Louise Edwards, Gerald R. Greenberg, Rania Habib, Jaklin Kornfilt, Thomas McKay, Zaline M. Roy-Campbell, Maria Emma Ticio Quesada, Susan S. Wadley, Louise C. Wilkinson, Bei Yu

The Certificate of Advanced Studies in Language Teaching: TESOL/TLOTE is a 12-credit graduate-level program focusing on the teaching of English to speakers of other languages (TESOL) and the teaching of languages other than English (TLOTE). It prepares individuals for careers teaching languages in a variety of contexts.

### The Certificate:

- qualifies students for entry-level language teaching positions in English and languages other than English in the USA and for some higher-level language teaching positions overseas. In combination with other advanced degrees, it may provide further academic and professional opportunities.
- prepares students for teaching English to recent immigrant to the US, international business executives in the US and abroad, university students, and children in private schools in the US and elsewhere.
- enables students to teach languages other

## GRADUATE COURSE CATALOG

than English in various contexts.

- helps students who are very early in their career or those who are seeking a mid-career change to a field becoming more competitive as employers increasingly look for candidates with accredited qualifications.
- assists students in later pursuing a further graduate education. For example, all credits are applicable to the completion of an MA in Linguistic Studies with a concentration in Language Teaching, a 30-credit degree program which qualifies students for higher-level language teaching positions and teacher training or managerial positions in the US and abroad.

### Program Requirements

12 credits of study are required for the CAS in Language Teaching: TESOL/TLOTE: three required courses and one elective course. Required courses provide essential grounding in the mechanics of language, a foundation in language teaching methodology, and a teaching practicum. Elective courses will enable specialization in an area of professional interest.

### Required Courses (9 credits):

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**
- **LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**

One elective specialization course (3 credits) in one of following areas:

Assessment  
Culture and Society  
Language Acquisition  
Language Structure  
Learning Populations  
Literacy  
Materials Design  
Program Management

### Program Duration

The CAS in Language Teaching: TESOL/TLOTE can be completed in three semesters:

Fall:

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**

Spring:

- **LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**

Fall:

- **LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**

### One Elective Specialization Course

One elective specialization course in Assessment, Culture and Society, Language Acquisition, Language Structure, Learning Populations, Literacy, Materials Design, or Program Management will also be taken during the period of study.

### Accelerated Schedule

When available, an accelerated schedule may enable completion of the CAS in Language Teaching: TESOL/TLOTE in six months:

Summer:

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**

Summer:

- **LIN 621 - Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**

Fall:

- **LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching 3 credit(s)**

### One Elective Specialization Course

One elective specialization course in Assessment, Culture and Society, Language Acquisition, Language Structure, Learning Populations, Literacy, Materials Design, or Program Management will also be taken during the period of study.

## Latin American Studies, CAS

Program on Latin America and the Caribbean  
346 Eggers Hall  
315.443.9467

### Certificate Requirements

This certificate certifies successful completion of 12 credits of graduate courses from a variety of disciplines related to Latin American themes. For a course to be eligible for the PLACA Certificate, the PLACA director must agree that its Latin American content is at least 50% of the overall course content.

Interested students are encouraged to interact with the Director of the Certificate Program early in their tenure to develop a program of study. Once you are approved, you will need to fill out several forms such as the Graduate School's Internal Admission form to enroll in the program.

In order to receive the certificate, students must complete the 12-credit hours of coursework and earn a cumulative grade point average of at least 3.0 in these courses and successfully complete the degree program in their primary field.

The dates and deadlines form provides specific deadlines by which forms must be complete. The Program of Study must be completed and signed by your advisor and the director of PLACA.

## Medicolegal Death Investigation, CAS

### 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 Advanced 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, forensic scientists, and medical and legal personnel. 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. In the case of legal professionals, the knowledge will aid



## GRADUATE COURSE CATALOG

their interpretation of medical examiner reports and help them to know what questions to ask. Thus, this certificate program will help these various people become more effective in their own professions as it intersects with death investigation.

### Requirements:

#### I. Gateway Course - 3 Credits Required

- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 637 - Medicolegal Death Investigation for Emergency Responders 3 credit(s)**

#### II. Electives - 9 Credits Required

- **FSC 635 - Medicolegal Death Investigation I 3 credit(s)**
- **FSC 636 - Medicolegal Death Investigation II 3 credit(s)**
- **FSC 637 - Medicolegal Death Investigation for Emergency Responders 3 credit(s)**
- **FSC 640 - Special Topics in Advanced Forensics 3 credit(s)** (approved topics only\*)
- **FSC 651 - Forensic Pathology 3 credit(s)**
- **FSC 653 - Forensic Toxicology 3 credit(s)**
- **FSC 662 - Forensic Entomology 3 credit(s)**
- **FSC 663 - Bloodstain Pattern Analysis 3 credit(s)**
- **FSC 667 - Forensic Photography 3 credit(s)**
- **FSC 668 - Crime Scene Investigation 3 credit(s)**
- **FSC 690 - Independent Study 1-6 credit(s)** or Internship in Forensic Science

### Note:

\*Relevant workshops will be run under FSC 640, 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 of Advanced Study in Medicolegal Death Investigation

Total Credits: 12 (limit of 3 transfer credits)

## Middle Eastern Affairs, CAS

### Program Director:

Mehrzad Boroujerdi  
332 Eggers Hall  
315-443-5877  
mborouje@maxwell.syr.edu

## Faculty

Ahmed E. Abdel-Meguid, Carol Babiracki, 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, Dana M. Olwan, Kara Richardson, Robert A. Rubinstein, Ossama "Sam" Salem, Yüksel Sezgin, James W. Watts

The Certificate of Advanced Studies in Middle Eastern Affairs is available to Syracuse University students in all graduate programs who are looking to supplement their degree with a strong foundation in the region's culture and politics or to prepare for a career involving regional specialization. Students are required to complete at least twelve credits: a single three-credit required course and nine credits in the form of approved electives chosen from affiliated departments within the University and/or approved extracurricular experience.

## Obtaining the Certificate

Students interested in obtaining the Certificate of Advanced Studies in Middle Eastern Affairs should consult the list of required and elective courses and other credit-bearing activities. Application for the Certificate should be made by first consulting with the student's Faculty Advisor who will determine whether the student can pursue the Certificate consistent with the requirements of his/her degree program, and then by speaking with the Director of the Certificate Program,

Professor Mehrzad Boroujerdi.

## Administrative Steps

Two forms must be filled out and delivered to the Middle Eastern Studies Program to complete this application stage:

1. Students who have completed at least six credits of related coursework in Middle Eastern Studies should complete the Graduate Enrollment Internal Admission Application form to receive admission to the program. Once completed, the form should be submitted to Ms. Amy Marsden at the Moynihan Institute (346 Eggers Hall) who will sign for the Middle Eastern Studies Program and pass it on to the Graduate Admissions office (621 Skytop Road). Please note that the "Program Code" for the certificate in Middle Eastern Affairs is MI17CAS.
2. The Program of Study form has to be signed by the student's advisor and by Professor Mehrzad Boroujerdi (332 Eggers Hall) who is the Director of the Middle Eastern Studies Program. The Program of Study will be held by Ms. Amy Marsden until all the requirements for the certificate (twelve credits) are complete. Ms. Marsden will submit this form to the Graduate Certification Office (107 Steele Hall) in a timely manner before the student's expected graduation date so that the documents and information can be gathered as the graduation date approaches.

Please also remember that a Graduate Diploma Request Form must be completed through MySlice during the semester the student will graduate. Students must complete a separate form for each of their degree programs as each results in its own degree date and diploma.

The Director will recommend granting the Certificate to students who have met all of the requirements (while maintaining a cumulative GPA of at least 3.0 for all classes taken toward it) and who are in good standing in their graduate school or department.

## Program Requirements

Twelve credits in four courses must be earned to be eligible for the certificate. These must include:

### 1. The choice of one of the program's two foundational graduate-level courses

(substitutions may be made in some cases with permission from the Director):

- **MES 682 - Social Theory and Middle East Politics 3 credit(s)**
- **MES 644 - Israel and Palestine:**

## GRADUATE COURSE CATALOG

### Historical Approaches 3 credit(s)

## 2. Nine Total Elective Credits

Nine total elective credits chosen from the list of affiliated classes, the University's language offerings, experiential education, and study abroad. The following classes have already been approved by the program:

- **MES 668 - Middle East in Anthropological Perspective 3 credit(s)**
- **MES 707 - Culture in World Affairs 3 credit(s)**
- **ARC 735 - Islamic Architecture 3 credit(s)**
- **MES 644 - Israel and Palestine: Historical Approaches 3 credit(s)**
- **MES 682 - Social Theory and Middle East Politics 3 credit(s)**
- **MES 684 - International Relations of the Middle East 3 credit(s)**
- **REL 628 - Muslim Rituals, Practices, and Performances 3 credit(s)**
- **REL 676 - Religion and Jewish Literature 3 credit(s)**
- **REL 607 - Ancient Religious Rhetoric 3 credit(s)**
- **REL 625 - Pluralism in Islam 3 credit(s)**

## Credits Towards the Certificate

In addition to these affiliated classes, students may also earn credits towards the Certificate in the following ways:

- A maximum of six credits of any regional language courses at the 600 level (i.e., 620).
- Extracurricular experience (i.e., internships) that may count for between one and three credits (with the approval of the Program Director).
- A maximum of six credits of graduate-level Middle East-related independent study or special topics courses.
- A maximum of six credits of relevant, departmentally-approved coursework taken at another university. The Middle Eastern Studies Program, the Maxwell School and Syracuse University presently have established student exchange relationships with the American University in Cairo (Egypt),
- Bahçesehir University (Turkey), Bogacizi University (Istanbul, Turkey), An Najah University (Nablus, Palestine), and the Interdisciplinary Center (Herzliya, Israel).

## Prerequisite:

In order to enroll in the Certificate program, you must be a matriculated Syracuse University graduate student in good standing and have completed at least six credits of coursework in related classes.

## Extracurricular Opportunities:

- **Internships:** Graduate students can receive a maximum of three credits for an internship in any governmental/non-governmental organization based either in the region or outside which deals strongly with the Middle East.
- **Fieldwork:** The Moynihan Institute of Global Affairs at the Maxwell School usually allocates one or two annual summer research grants for Maxwell doctoral students. The purpose of the award is to provide students the opportunity to gather data, undergo advanced language training, and increase competitiveness of future proposals for funding. Grants range from \$1,000 to \$3,000 and will be assigned on merit. Grant awardees register and receive credit for an independent study course (typically three credits). Students who have secured outside sources of funding may also submit proposals for fieldwork through independent study.
- **Other Awards:** MESP Best Graduate Student Essay Prize is awarded annually to the best essay by a graduate student at the University dealing with any aspect of the Middle East. The author of the winning paper is presented with a certificate and a \$500 prize.

## South Asia Studies, CAS

## Faculty

Carol Babiracki, Shobha K. Bhatia, Tej K. Bhatia, Himika Bhattacharya, Manan Desai, Tula Goenka, Tazim R. Kassam, Prema Kurien, Chandra Talpade Mohanty, Romita Ray, Anoop Sadanandan, Larry Schroeder, Farhana Sultana, Cecilia Van Hollen, Susan S. Wadley, Joanne P. Waghorne

## Affiliated Faculty:

Ahmed Abdel Meguid, Sarosh Anklesaria, Mehrzad Boroujerdi, Richard Breyer, Thomas Brutsaert, Gareth Fisher, Rashmi Gangamma, Roger Hallas, Devashish Mitra, Lars Rodseth, Kamala Ramadoss, Jaipaul Roopnarine, Yuksel Sezgin

## Certificate Requirements

The Certificate of Advanced Study (CAS) in South Asia is available to Syracuse University students in all graduate programs who are looking to supplement their degree with an interdisciplinary

approach to the cultures, politics, history, arts, and current events of this region. Students are required to complete at least twelve (12) credits.

Students matriculated in any MA or PhD program at Syracuse University and who have completed 12 graduate credit-hours in courses dealing with South Asia are eligible to apply to the Director of the South Asia Center for a "Certificate of Advanced Study in South Asia." The Director shall determine that the courses listed by the student meet the requirements for the Certificate. Graduate students may apply at any time after they are matriculated in a graduate program at SU, but it is advisable to wait until their final semester or until they have completed the 12 credit hours.

Candidates for the CAS must take one of the following courses:

- **ANT 621 - Gender & Sexuality in South Asia 3 credit(s)** or
- **SAS 621 - Language Training in Preparation for Research Using Hindi 3 credit(s)**
- **ANT 625 - Problems in Anthropology of South Asia 3 credit(s)**
- **ANT 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)** or
- **SAS 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)** or
- **PAI 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)**
- **HIN 620 - Language Training in Preparation for Research Using Hindi 3 credit(s)**
- **HST 775 - Readings and Research in South Asian History 3 credit(s)**
- **REL 687 - Global Hinduism 3 credit(s)**

Candidates can choose three other courses from the list below:

- **ANT 621 - Gender & Sexuality in South Asia 3 credit(s)** or
- **SAS 621 - Language Training in Preparation for Research Using Hindi 3 credit(s)**
- **ANT 625 - Problems in Anthropology of South Asia 3 credit(s)**
- **ANT 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)** or
- **SAS 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)** or

## GRADUATE COURSE CATALOG

- **PAI 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)**
- **ANT 628 - Muslim Rituals, Practices, and Performances 3 credit(s) \* or**
- **REL 628 - Muslim Rituals, Practices, and Performances 3 credit(s) \***
- **ANT 756 - Development Anthropology 3 credit(s) \***
- **ANT 764 - Gender and Globalization 3 credit(s) \* or**
- **GEO 764 - Gender and Globalization 3 credit(s) \* or**
- **WGS 764 - Gender and Globalization 3 credit(s) \***
- **HIN 620 - Language Training in Preparation for Research Using Hindi 3 credit(s)**
- **HST 715 - Readings and Research in American History 3 credit(s)**
- **HST 775 - Readings and Research in South Asian History 3 credit(s)**
- **LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s) \***
- **LIN 681 - Global Communication Through World Englishes 3 credit(s) \***
- **PAI 707 - Culture in World Affairs 3 credit(s) \***
- **PAI 715 - Topics in Global Development 3 credit(s) \***
- **PAI 758 - Public Finance in Developing Areas 3 credit(s) \***
- **REL 621 - Teaching World Religions in Theory and Practice 3 credit(s) \***
- **REL 625 - Pluralism in Islam 3 credit(s) \***
- **REL 626 - Beyond the Veil: Gender Politics in Islam 3 credit(s) \* or**
- **SAS 626 - Cultures and Politics of Afghanistan and Pakistan Muslim Women Beyond the Veil \***
- **REL 627 - Globalization and Religion: Processes and problems 3 credit(s) \***
- **REL 687 - Global Hinduism 3 credit(s)**
- **REL 692 - Other People's Religions 3 credit(s) \***
- **REL 696 - Gender and Religion: Theory and Practice 3 credit(s) \***
- **REL 699 - Writing Religions and Cultures: Ethnographic Practice 3**

**credit(s) \***

### Note:

\*Some South Asian content is included (30% or more). Students may use these courses for the certificate only if they write their research paper on a South Asian topic.

## Women's Studies, CAS

Department of Women's and Gender Studies  
208 Bowne Hall  
315-443-3560

## Office Coordinator

Alice Loomis, 208 Bowne Hall, 315-443-3707,  
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, 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.

## Certificate Requirements

Students must take a minimum of 12 credits of graduate coursework cross-listed as WGS courses or approved by the Chair of the Department of Women's and Gender Studies. At least one course (3 credits) must be an approved Theory course and at least one course (3 credits) of the CAS coursework must be a Core Graduate WGS course. A single course may not be used to fulfill both the Theory and Core course requirements.

## Approved WGS Theory Courses:

- **WGS 601 - Feminist Theories 3 credit(s)**
- **WGS 636 - Feminist Rhetoric(s) 3 credit(s)**
- **WGS 644 - Feminist Theology 3 credit(s) (IR)**
- **WGS 652 - Feminism and Postcolonial Studies 3 credit(s)**
- **WGS 671 - Latin American Literature and Feminist Theory 3 credit(s)**
- **WGS 673 - Women, Rap and Hip-Hop Feminism 3 credit(s)**
- **WGS 701 - Intersectionality 3 credit(s)**
- **WGS 705 - Negotiating Difference: Coming of Age Narratives 3 credit(s)**
- **WGS 710 - Feminist Inquiries 3 credit(s)**
- **WGS 740 - Feminist Theories of Knowing 3 credit(s) (O)**
- **WGS 757 - Black Feminist Theories 3 credit(s)**
- **WGS 795 - Practice of Transnational Feminism 3 credit(s) (IR)**

## Additional Information

With departmental approval, various sections of Special Topics courses can satisfy the WGS Theory requirement as well.

## Core Graduate WGS Courses:

- **WGS 601 - Feminist Theories 3 credit(s) (Y)**
- **WGS 625 - Feminist Organizations 3 credit(s)**
- **WGS 636 - Feminist Rhetoric(s) 3 credit(s) (Y)**
- **WGS 652 - Feminism and Postcolonial Studies 3 credit(s) (Y)**
- **WGS 673 - Women, Rap and Hip-Hop Feminism 3 credit(s)**
- **WGS 701 - Intersectionality 3 credit(s)**
- **WGS 705 - Negotiating Difference: Coming of Age Narratives 3 credit(s) (IR)**
- **WGS 710 - Feminist Inquiries 3 credit(s)**
- **WGS 740 - Feminist Theories of Knowing 3 credit(s) (O)**
- **WGS 757 - Black Feminist Theories 3 credit(s) (Y)**
- **WGS 795 - Practice of Transnational Feminism 3 credit(s) (Y)**

## GRADUATE COURSE CATALOG

### Additional Information

With departmental approval, various sections of Special Topics courses can satisfy the Core WGS requirement as well.

### Admissions

The Certificate of Advanced Study (CAS) in women's and gender studies is a 12-credit graduate-level certificate designed for students currently pursuing another graduate degree or as post-baccalaureate work. Current students already matriculated in a master's or doctoral program must apply for certification at least one semester before receiving their degree. The chair of the Department of Women's and Gender Studies will confer with each student and approve each student's program. A list of appropriate courses is available in the Department of Women's and Gender Studies office, 208 Bowne Hall, 315-443-3707.

### Graduate Award

Awarding of the Certificate of Advanced Studies will be in the spring semester of each year.

### Certificate of Recognition

Certificates of Recognition are awarded to doctoral students who have produced dissertations in Women's/Feminist Studies. To receive certification, the candidate must submit a petition listing the title and abstract of the dissertation, the defense date, and the dissertation advisor. Awards will be made at the end of the spring semester of each year.

### Prizes

Each spring there is an essay contest for the Toni Taverone Graduate Paper Prize that carries an award. The Joan Lukas Rothenberg Graduate Student Service Award is also awarded annually.

### Asian/Asian American Studies

#### AAA 690 - Independent Study

##### *College of Arts and Sciences*

1-6 credit(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. Repeatable

### African American Studies

#### AAS 500 - Selected Topics

##### *College of Arts and Sciences*

1-6 credit(s) Upon sufficient interest 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.

Repeatable

#### AAS 501 - African American Sociological Practice:1900-45

##### *College of Arts and Sciences*

3 credit(s) Irregularly

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.

#### AAS 503 - Black Paris: Studies in Literature, Culture and Intellectual Life

##### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

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 Tourmon, Belleville, the Louvre, and University of Paris.

#### AAS 510 - Studies in African American History

##### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: HST 510

Particular periods or aspects of African American history.

Repeatable

#### AAS 512 - African American Women's History

##### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

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

##### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

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

##### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

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

##### *College of Arts and Sciences*

3-4 credit(s) At least 1x fall or spring

Various areas of intellectual and research interests related to the American black experience. Integrates knowledge of historical, cultural, sociological, political, and economic issues. Repeatable

#### AAS 580 - International Course

##### *College of Arts and Sciences*

1-12 credit(s) Irregularly

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. Repeatable

#### AAS 590 - Independent Study

##### *College of Arts and Sciences*

1-6 credit(s) Irregularly

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. Repeatable

#### AAS 600 - Selected Topics

##### *College of Arts and Sciences*

1-6 credit(s) Every semester

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

#### AAS 608 - Masters of American Black Music

##### *College of Arts and Sciences*

3 credit(s)

Double Numbered with: AAS 408

Various masters of African American music and how these masters brought beauty and happiness

## GRADUATE COURSE CATALOG

to the common place.

### **AAS 609 - History of Jazz, 1940 to Present**

#### ***College of Arts and Sciences***

3 credit(s)

Double Numbered with: AAS 409

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.

### **AAS 610 - Seminar in Pan Africanism: Research and Reading**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Commonalities shared by Africans and people of African descent. Political and intellectual currents developed in the face of these currents.

Repeatable

### **AAS 611 - Arts, Cultures and Literatures of the Pan African World**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Definitions, representations, and critiques of Pan Africanism. African, African American, and African Caribbean artistic, cultural, and literary products explored. Aesthetics, gender, feminisms, reading, research, reflection, and analysis emphasized.

### **AAS 612 - Histories, Societies and Political Economies of the Pan African World**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Effects of global encounters on African, African Caribbean, and African American societies examined.

### **AAS 620 - Black Women Writers**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest

Writers whose work creates, expands, and engages knowledge of Pan Africanism.

Repeatable

### **AAS 625 - "Revolt of the Black Athlete": Africana Studies and the History and Culture of Sport**

#### ***College of Arts and Sciences***

3 credit(s) Every semester

Double Numbered with: AAS 425

This seminar will examine the complex and varied Africana athletic experiences from the playing field to the coaching ranks and front office from a critical social justice perspective intersecting race, class, gender, and international relations.

Additional work required of graduate students.

### **AAS 626 - African American Urban History**

#### ***College of Arts and Sciences***

3 credit(s) Every semester

Crosslisted with: HST 626

Double Numbered with: AAS 426

This seminar will examine the complex and varied Black urban experiences in the 20th and 21st centuries from the 1890s to the present.

### **AAS 627 - New York City: Black Women Domestic Workers**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Crosslisted with: SOC 627, WGS 627

Double Numbered with: AAS 427

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.

### **AAS 631 - Seminar in African Drama and Theater**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest

Exploration of African performance art forms existing since antiquity. Selected contemporary written drama texts. Includes student performance.

### **AAS 634 - Underground Railroad**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest

Crosslisted with: ANT 694, HST 634

Double Numbered with: AAS 434

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.

### **AAS 645 - The Caribbean: Sex Workers, Transnational Capital, and Tourism**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Crosslisted with: SOC 645, WGS 645

Double Numbered with: AAS 445

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.

### **AAS 670 - Experience Credit**

#### ***College of Arts and Sciences***

1-6 credit(s)

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. Repeatable

### **AAS 671 - Caribbean Intellectual Thought**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Analysis of principle thinkers who have influenced the philosophy and intellectual culture of the region.

### **AAS 681 - Comparative State, Society Relations**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: PSC 681

Conceptual, methodological, and theoretical tools in comparing state, society relations, and their political and socioeconomic outcomes in the Pan African world and the rest of the world.

### **AAS 690 - Independent Study**

#### ***College of Arts and Sciences***

1-6 credit(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. Repeatable

### **AAS 700 - Seminar in African American Studies**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest

Advanced interdisciplinary inquiry into critical areas of intellectual and research interests in relation to black experience in the United States. Students are required to develop major research hypotheses around themes of black experience. Repeatable

### **AAS 731 - Militarism and Transformation in South Africa**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Issues of militarism in political process in Southern Africa in last 15 years. Understanding background which unleashed war, destabilization, and violence in region.

## GRADUATE COURSE CATALOG

### **AAS 757 - Black Feminist Theories**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Crosslisted with: WGS 757

Explores historical backgrounds and contemporary expressions of Black feminist thought around the globe to broaden our knowledge of feminist theory. We take an interdisciplinary approach to Black feminist theory that crosses genres and disciplines.

### **AAS 765 - Readings and Research in African History**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest

Crosslisted with: HST 765

Readings and research on a topic or theme in African History of the instructor's choosing.

### **AAS 997 - Master's Thesis**

#### ***College of Arts and Sciences***

6-9 credit(s)

Repeatable 1 time(s), 18 credits maximum

## **Arts Leadership Administration**

### **ALP 600 - Selected Topics**

#### ***College of Arts and Sciences***

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **ALP 601 - Entrepreneurship and Leadership in the Arts**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Integrates fields of arts and culture with business and administration. Introduces disciplines including: leadership, strategic planning, structuring, budgeting, financial analysis, fundraising, community development, board development, volunteer management, marketing, issues of technology in the arts.

### **ALP 603 - Technology and the Arts**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Demonstrates how technology is central to managing, recording, marketing, promoting and defining cultural organizations. Technology has changed the nature of arts organizations. Learn about technologies that are changing the industry, how that technology is implemented, and implications for management of cultural organizations.

PREREQ: ALP 601

### **ALP 610 - Arts Leadership, Lecture Series/Practicum Immersion**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Ten-day arts immersion trip to New York City or other major cultural center. Arts leaders will explore government policy, arts programming and education, marketing, public relations, fund development and fiscal and board management, arts law, strategic planning, organizational designs and approaches.

PREREQ: ALP 601

### **ALP 612 - Arts Entertainment and the Law**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Introduction to the American legal system, especially in relationship to the arts and entertainment industries, addressing legal issues in copyright, first Amendment, trademark, publicity, and contract matters, informing the interaction between arts leaders and counsel.

### **ALP 615 - Arts Immersion in a Global Market**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Examine museums, exhibitions, art galleries, artists' studios as spaces within which the global currency of artistic production has been created, validated and reinvented. Offered abroad during Maymester.

PREREQ: ALP 601

### **ALP 690 - Independent Study**

#### ***College of Arts and Sciences***

1-6 credit(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. Repeatable

### **ALP 701 - Arts Administration Internship & Capstone Project**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Capstone experiences for the Arts Leadership program. Prepare management analysis and strategic plan for arts organization. Prepare and implement plan for original strategic project as part of a mentored internship.

PREREQ: ALP 601, ALP 603, ALP 610, AND ALP 612

## **Anthropology**

### **ANT 500 - Selected Topics**

#### ***College of Arts and Sciences***

1-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **ANT 523 - Globalization and its Discontents in Latin America**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

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**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

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**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest

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. Repeatable 1 time(s), 6 credits maximum

### **ANT 574 - Anthropology and Physical Design**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

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 620 - Language Training in Preparation for Research Using Arabic**

#### ***College of Arts and Sciences***

3 credit(s)

Language training to prepare students to conduct research in areas that require knowledge of Arabic.

Repeatable 3 time(s), 12 credits maximum

## **Biochemistry**

## GRADUATE COURSE CATALOG

### BCM 630 - Journal Club in Molecular Pharmacology & Structural Biology

#### *College of Arts and Sciences*

1 credit(s) At least 1x fall or spring  
Double Numbered with: BCM 430  
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.  
Repeatable 1 time(s), 2 credits maximum

### BCM 675 - Biochemistry I

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: BCM 475  
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.

### BCM 676 - Biochemistry II

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: BCM 476  
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.

### BCM 677 - Proteins and Nucleic Acids Lab

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Crosslisted with: CHE 677  
Double Numbered with: BCM 477  
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.

### BCM 678 - Perspectives in Biochemistry

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Crosslisted with: CHE 678  
Survey of Biochemistry with emphasis on the unifying concepts of Chemistry and Biology,

requiring a graduate-level background in science.

### BCM 684 - Biomolecular Modeling

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: BCM 484  
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.

## Biology

### BIO 501 - Biology of Cancer

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
A lecture course on basic problems of cell function, including energetics, membrane transport, contractility, and properties of excitable membranes.  
PREREQ: BIO 326 AND 327

### BIO 607 - Advanced Neuroscience

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered 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.  
PREREQ: BIO 211 OR PSY 223

### BIO 610 - Graduate Research Laboratory

#### *College of Arts and Sciences*

1-3 credit(s) Every semester  
Work in research laboratories to acquire skills and techniques.  
Repeatable 5 time(s), 6 credits maximum

### BIO 611 - Evolutionary Mechanisms

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: BIO 411  
Core processes & mechanisms involved in evolution, extending to molecular evolution, evolutionary genetics, & genomics. Topics include: genetic variation, mutation & neutral evolution, selection, drift & inbreeding, quantitative genetics, molecular evolution, selection in the wild, adaptation, & speciation. Additional work required of graduate students.

### BIO 614 - Biology of Adaptive Behaviors

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: BIO 414  
Behavioral adaptations give animals the ability to use their pasts to solve new problems, an ability important to their survival. This course will examine behavioral plasticity and the brain mechanisms responsible for adaptive changes in behavior. Additional work required of graduate students.

### BIO 615 - Conservation Biology

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Double Numbered with: BIO 415  
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.

### BIO 616 - Biology of Aging

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: BIO 416  
Reviews and discusses current topics on biology of aging emphasizing distinctions between healthy and pathological aging. Primary focus will be on molecular, cellular, systems-level and whole organism changes accompanying aging. Additional work required of graduate students. Additional work required of graduate students.

## GRADUATE COURSE CATALOG

### **BIO 624 - Readings in Neuroscience**

#### **College of Arts and Sciences**

0-3 credit(s) Irregularly

Crosslisted with: BEN 613, CSD 753, NEU 613, PSY 778

A literature-based team-taught course focusing on in depth discussions of classical or recent papers of exceptional import to neuroscience. Students will complete weekly readings assigned by faculty and participate in a 3-hr/wk group facilitated discussion

### **BIO 625 - Interdisciplinary Methods of Neuroscience**

#### **College of Arts and Sciences**

0-3 credit(s) Irregularly

Crosslisted with: BEN 614, CSD 754, NEU 614, PSY 779

A practical interdisciplinary survey course whereby neuroscience faculty introduce students to a wide array of methodologies, including molecular, cellular, developmental, systems, behavioral, and cognitive neuroscientific approaches to investigate basic, pre-clinical, translational, and clinical questions to unravel the relationship between brain and behavior.

### **BIO 635 - Physical Cell Biology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: BEN 635, CEN 635, CHE 635, PHY 635

This interdisciplinary class for science and engineering students provides an introduction to the quantitative description of biological systems and processes. The focus is on the biological and physical aspects of structure and function of cells and their subsystems.

### **BIO 637 - Seminar in Developmental Neuroscience**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: BIO 437

Seminar course designed to enable students to develop & practice skills in critical analysis as applied to reading primary scientific literature, covering some of the general principles of how a functioning nervous system is made in developing animals. Additional work required of graduate students.

### **BIO 638 - Open Problems in Soft Interfaces**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: BEN 638, CEN 638, CHE 638, PHY 638

In this seminar course on soft and biological materials and interfaces, teams from science

and engineering will identify, discuss and assess current articles from the literature. Writing skills related to publishing peer-reviewed research are introduced.

### **BIO 639 - Seminar in Ecosystem Ecology**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8

Double Numbered with: BIO 439

Examines the main drivers of climate, biodiversity, trophic structure - of energy and nutrient flows through terrestrial and aquatic ecosystems by exploring reviews and the primary research literature. Additional work required of graduate students.

### **BIO 641 - Seminar in Infectious Diseases**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: BIO 441

Seminar focusing on human diseases caused by infectious agents such as viruses and bacteria. Cause (agent), contagion, symptoms, treatment & potential outcomes will be discussed. Lectures & review of patient case studies. Additional work required of graduate students.

### **BIO 642 - Seminar in Model Organism Genetics**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: BIO 442

Literature review of research papers using model genetic systems to investigate topics including animal and plant development, cancer, neurological disease, behavior, and aging. Additional work is required of graduate students.

### **BIO 643 - Seminar in Epigenetics**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: BIO 443

Seminar covering how epigenetic (gene expression inherited without change in DNA sequence) mechanisms regulate gene expression for proper development of organisms, including how they regulate health & behavior of animals due to environmental stimuli. Additional work is required of graduate students.

### **BIO 644 - Seminar in Neurotoxicology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: BIO 444

Examination of the mechanisms and consequences of toxicity of poisons in the central and peripheral nervous systems with a focus on the primary research literature. Additional work is

required of graduate students.

### **BIO 651 - Ecology**

#### **College of Arts and Sciences**

3 credit(s) Even Academic Yr e.g. 2004-5

Double Numbered with: BIO 451

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 656 - Seminar in Human Disease Genomics**

#### **College of Arts and Sciences**

3 credit(s)

Double Numbered with: BIO 456

Introduces students to influential genomic studies of the etiology & epidemiology of human disease. Recent insights into the genetic basis of human adaptation & its potential relevance to disease predisposition will be discussed. Additional work required of graduate students.

### **BIO 657 - Principles of Human Toxicology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: FSC 657

Double Numbered with: BIO 457

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.

### **BIO 658 - Seminar in Animal Communication**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: BIO 458

Fundamental principles underlying how and why animals communicate with each other. Examination of the behavioral role of signaling, the conflicts that arise when senders and receivers have differing interests, and the behavioral strategies that result from these conflicts. Additional work required of graduate students.

### **BIO 659 - Plants & People**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8

Double Numbered with: BIO 459

Focus on plant biology, the role of plants in the environment and society, and current topics surrounding plants and people. Additional work is



## GRADUATE COURSE CATALOG

required of graduate students.

### BIO 662 - Molecular Genetics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Double Numbered with: BIO 462

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 epigenomic systems level approaches to these topics. Additional work required of graduate students.

PREREQ: BIO 326, 327

### BIO 663 - Molecular Biotechnology

#### *College of Arts and Sciences*

4 credit(s) At least 1x fall or spring

Double Numbered with: BIO 463

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, 327

### BIO 664 - Applied Biotechnology

#### *College of Arts and Sciences*

4 credit(s) At least 1x fall or spring

Double Numbered with: BIO 464

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, 327

### BIO 665 - Molecular Biology Laboratory

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Double Numbered with: BIO 465

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, 327

### BIO 669 - Science of Countering Weapons of Mass Destruction

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: FSC 669

Double Numbered with: BIO 469

Scientific basis and means for countering WMDs, including biological systems. Protective measures, proven doctrines, practical questions,

and problem solving. Additional work required of graduate students.

### BIO 672 - Advanced Light Microscopy

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Crosslisted with: FSC 672

Double Numbered with: BIO 472

Theory and practice of modern light microscopy, including the fundamentals of image formation and applications in the biological and biomedical sciences, including reviews of microscopy methods and analog and digital image capture. Additional work required of graduate students.

### BIO 675 - Biochemistry Laboratory

#### *College of Arts and Sciences*

4 credit(s) At least 1x fall or spring

Double Numbered with: BIO 475

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, BIO 327

COREQ: BIO 575

### BIO 676 - Cold Cases

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

Crosslisted with: FSC 676

Double Numbered with: BIO 476

Methods and practice in solving unsolved cases using fundamental science, court documents, and other sources of information. Will include work on real cases. Additional work required of graduate students.

### BIO 688 - Biological Literature

#### *College of Arts and Sciences*

1-3 credit(s) Every semester

Lectures and library problems designed to acquaint student with reference sources.

Technique of searching scientific literature and preparation of reports using such reference material. Also open to seniors.

Repeatable

### BIO 690 - Independent Study

#### *College of Arts and Sciences*

1-6 credit(s) Every semester

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.

Repeatable

### BIO 787 - Graduate Seminar in Functional Genomics

#### *College of Arts and Sciences*

0-2 credit(s) Irregularly

Students review, critically evaluate, and present various topics related to genomic methods used for analysis of biological processes in a variety of model organisms.

Repeatable 1 time(s), 2 credits maximum

### BIO 791 - Graduate Seminar in Species Interactions

#### *College of Arts and Sciences*

0-2 credit(s) Irregularly

Selected topics dealing with ecological and evolutionary perspectives of species interactions. Students review, critically evaluate, and summarize recent literature on given topics. The summaries are presented and discussed in class.

Repeatable

### BIO 792 - Animal Ecology & Behavior

#### *College of Arts and Sciences*

0-3 credit(s) Irregularly

Students review, critically evaluate, and summarize recent literature on given topics. The summaries are presented and discussed in class.

Repeatable

### BIO 793 - Plant Ecology

#### *College of Arts and Sciences*

0-2 credit(s) Irregularly

Students review, critically evaluate, and summarize recent literature on given topics. The summaries are presented and discussed in class.

Repeatable

### BIO 795 - Speciation

#### *College of Arts and Sciences*

0-2 credit(s) Irregularly

Students review, critically evaluate, and summarize recent literature on given topics. The summaries are presented and discussed in class.

Repeatable

### BIO 797 - Seminar: Topics in Evolution

#### *College of Arts and Sciences*

0-2 credit(s) Irregularly

Sexual selection and conflict, parental care, social evolution, speciation, morphological evolution.

Critically evaluate and discuss recent historical and classical literature on the given topics.

Repeatable

### BIO 997 - Masters Thesis

#### *College of Arts and Sciences*

1-6 credit(s) Every semester

Repeatable

## GRADUATE COURSE CATALOG

### **BIO 999 - Dissertation**

*College of Arts and Sciences*  
1-15 credit(s) Every semester  
Repeatable

## **College of Arts and Sciences**

### **CAS 611 - Living in a Global Environment**

*College of Arts and Sciences*  
1 credit(s) At least 1x fall or spring  
Double Numbered with: CAS 411  
Analysis of practical and theoretical components in living and interacting with people of different countries and cultures. Additional work required of graduate students.

### **CAS 713 - Proposal Writing**

*College of Arts and Sciences*  
3 credit(s) At least 1x fall or spring  
Crosslisted with: ANT 713  
A two-week workshop during which graduate students draft a proposal for dissertation or other research; includes extensive evaluation of ongoing drafts.

## **Composition and Cultural Rhetoric**

### **CCR 611 - Composition Histories/Theories**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Examines the histories of composition studies. Analyzes the institutional, political and social forces influencing the theories and practices of composition.

### **CCR 620 - Graduate Readings**

*College of Arts and Sciences*  
1-4 credit(s) Every semester  
Repeatable 3 time(s), 4 credits maximum

### **CCR 631 - Contemporary Rhetorics**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Surveys and situates histories and theories of contemporary rhetorical studies. Examines difference and power as rhetoric is practiced across cultures and publics.

### **CCR 632 - Studies in Writing Pedagogy**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Explores research, theory, politics, and practices of writing pedagogies and curricula. Focuses on historical and institutional contexts, theories of language use, questions of difference, and

controversies.

### **CCR 633 - Writing, Rhetorics and Technologies**

*College of Arts and Sciences*  
3 credit(s) At least 1x fall or spring  
Explores histories of and recent developments in communication and information technologies, particularly their rhetorical, cultural, and pedagogical implications

### **CCR 634 - Ancient Rhetorics**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Surveys and situates ancient rhetorics in their social, political and global contexts. Introduces rhetorical historiography.

### **CCR 635 - Advanced Research Practices**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Surveys research methods and methodologies. Focuses on reading research rhetorically, crafting researchable questions, and designing research studies.

### **CCR 636 - Feminist Rhetoric(s)**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: CRS 636, 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.

### **CCR 638 - Advanced Creative Nonfiction**

*College of Arts and Sciences*  
3 credit(s) Irregularly  
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.

### **CCR 651 - Language and Literacy**

*College of Arts and Sciences*  
3 credit(s) Irregularly  
Language and literacy viewed from cognitive, social, historical, political, compositionist, and literary perspectives. Institutional practices of literacy and the role of language and literacy in identity construction. Language variation, language protectionism, and pluralistic cultural literacy.

### **CCR 711 - Advanced Theories and Philosophies of Rhetoric**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Current issues in rhetorical theory and its application to the study of writing and written discourses. Emphasizes definitions and functions of theory, the formation of debates and controversies, relations of theory to practice.

### **CCR 712 - Advanced Theories and Philosophies of Composition**

*College of Arts and Sciences*  
3 credit(s) Odd academic yr e.g. 2007-8  
Current theories and major theorists in composition studies. Formulating critical problems that organize debate. Definition and functions of theory, relations to practice, rhetorical processes of scholarship.

### **CCR 732 - Advanced Studies in Writing Curriculum and Pedagogy**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Explores contemporary controversies and debates in writing pedagogy and curricula. Considers language, power and difference, interdisciplinarity and the transnational.

### **CCR 733 - Rhetoric, Composition, and the Digital Humanities**

*College of Arts and Sciences*  
3 credit(s) Upon sufficient interest  
Examines specific topics emerging from developments in writing and technology. Places these developments in rhetorical, disciplinary, interdisciplinary, and sociocultural contexts.

### **CCR 744 - African American Rhetorics**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: CRS 744  
Surveys African American discourse and its relationship to equality, resistance and participation. Examines philosophical concepts, political issues, discursive characteristics, traditions, theories, and histories of African American Rhetoric

### **CCR 745 - Writing Program Administration**

*College of Arts and Sciences*  
3 credit(s) Even Academic Yr e.g. 2004-5  
Studies the strategies, functions, structures, politics and practices of administering writing programs, writing centers, and writing across the curriculum programs in varied institutional contexts.

## GRADUATE COURSE CATALOG

### CCR 746 - Queer Rhetorics

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: CRS 746, QSX 746, WGS 746  
Explores contemporary queer scholarship and activism from a rhetorical perspective. Analyzes purposes, arguments, tropes, figures, exigencies, modes of delivery, and audiences in historical and transnational contexts

### CCR 747 - Authorship Studies

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
Investigates the social, historical and economic constructions of the author figure. Focuses on publication as a social phenomenon and the effects of print and digital literacy revolutions on text, author, reader, and literacy.

### CCR 751 - Social History of Rhetoric

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
Integrates study of historiography and cultural rhetoric. Investigates historical rhetorical practices, their construction and functions in social life, their documentation through archival research. Includes wide range of cultural and textual forms.

### CCR 760 - Advanced Studies in Composition & Cultural Rhetoric: Selected Topics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Seminar on topics in composition or cultural rhetoric.  
Repeatable

### CCR 820 - Advanced Graduate Readings

#### *College of Arts and Sciences*

1-4 credit(s) Irregularly  
Repeatable 3 time(s), 4 credits maximum

### CCR 887 - Doctoral Readings

#### *College of Arts and Sciences*

1-3 credit(s) At least 1x fall or spring  
Advanced readings and seminar discussion in preparation for doctoral qualifying examination.

### CCR 999 - Dissertation

#### *College of Arts and Sciences*

1-15 credit(s) Irregularly  
Repeatable 14 time(s), 15 credits maximum

## Chemistry

### CHE 546 - Molecular Spectroscopy and Structure

#### *College of Arts and Sciences*

1-9 credit(s) At least 1x fall or spring  
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  
Repeatable 5 time(s), 12 credits maximum

### CHE 575 - Organic Spectroscopy

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Use of mass spectrometry and infrared, ultraviolet-visible, and nuclear magnetic resonance spectroscopy.  
PREREQ: CHE 325

### CHE 611 - Inorganic Chemistry

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CHE 411  
Descriptive and structural inorganic chemistry and underlying principles.

### CHE 612 - Metals in Medicine

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CHE 412  
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.

### CHE 614 - Introduction to Medicinal Chemistry

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CHE 414  
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.

### CHE 615 - Main Group Chemistry

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
The s- and p-block elements and their compounds, chemical properties, reactivity,

structure, function, and applications. Organometallic, coordination chemistry and solid state aspects of main group inorganic chemistry employing physical methods to investigate observed trends.

### CHE 616 - Solid State Chemistry

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
The description and understanding of extended chemical structures, phase diagrams, and the interplay of chemical-bonding-structure. Symmetry and other factors governing the structures and physical properties of solid state materials.

### CHE 622 - Inorganic Laboratory Technique

#### *College of Arts and Sciences*

1 credit(s) At least 1x fall or spring  
Double Numbered with: CHE 422  
Basic experimental techniques used in inorganic chemistry.  
PREREQ: CHE 611

### CHE 624 - Advances in Inorganic Chemistry

#### *College of Arts and Sciences*

1 credit(s) Irregularly  
Recent advances in inorganic chemistry will be presented and discussed. Individual topics for the various modules of the course will be taught by experts in the field and will vary from year to year. Modular titles are: 624M Inorganic Chemistry of Main Group Elements 624M Materials Chemistry/Nanoscience and Nanotechnology 624M Biomedical Applications in Inorganic Chemistry 624M Organometallic and Main Group Chemistry  
Repeatable 2 time(s), 3 credits maximum

### CHE 625 - Crystallography

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: CHE 425  
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 626 - Organometallic Chemistry

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5  
Topics in current organometallic and organotransition metal chemistry emphasizing structure, bonding, properties, reactions, and reaction mechanisms of organometallic species including stoichiometric and catalytic reagents in asymmetric and related pathways.

## GRADUATE COURSE CATALOG

### **CHE 627 - Organic Chemistry of Biological Molecules**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: CHE 427

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.

### **CHE 634 - Advanced Chemical Instrumentation and Analytical Techniques**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Fundamentals of instrumentation, spectral data analysis, chemometrics, and analytical applications in various areas of molecular spectroscopy such as ultraviolet-visible absorption and fluorescence, electronic and vibrational circular dichroism, surface laser spectroscopy, and laser Raman scattering.

### **CHE 635 - Physical Cell Biology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: BEN 635, BIO 635, CEN 635, PHY 635

This interdisciplinary class for science and engineering students provides an introduction to the quantitative description of biological systems and processes. The focus is on the biological and physical aspects of structure and function of cells and their subsystems.

### **CHE 636 - Advanced Physical Chemistry**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: CHE 436

Applications of thermodynamics and quantum mechanics to chemical bonding, molecular properties, chemical kinetics, structure of matter, spectroscopy.

### **CHE 637 - Chemistry at the Interface: Biomaterials, Bioorganic & Bioinorganic Chemistry**

#### **College of Arts and Sciences**

1 credit(s) Irregularly

Contemporary topics in chemistry as applied to life sciences, with three one-credit sections on biomaterials, bioorganic, and bioinorganic chemistry. Emphasis on recent original research journal publications, as well as on unsolved problems in chemistry and biology. 637M Biomaterials 637M Bioorganic Chemistry 637M

Bioinorganic Chemistry

Repeatable 2 time(s), 3 credits maximum

### **CHE 638 - Open Problems in Soft Interfaces**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: BEN 638, BIO 638, CEN 638, PHY 638

In this seminar course on soft and biological materials and interfaces, teams from science and engineering will identify, discuss and assess current articles from the literature. Writing skills related to publishing peer-reviewed research are introduced.

### **CHE 645 - Quantum Mechanics in Chemistry**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

The fundamentals of quantum mechanics with application to simple systems, complex atoms, and molecules.

### **CHE 655 - Quantum Chemistry & Advanced Quantum Mechanics**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Fundamentals of quantum chemistry, molecular bonding (e.g., MO-SCF, C.I.), time-dependent phenomena, scattering, density matrices. PREREQ: CHE 645

### **CHE 656 - Chemical Thermodynamics**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Phenomenological approach. Chemical equilibria and solution behavior. Principles of molecular thermodynamics introduced.

### **CHE 666 - Statistical Mechanics**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Quantum-statistical treatment in terms of canonical and grand canonical ensembles of systems of noninteracting and interacting particles. Chemical applications of statistical thermodynamics, elementary theory of transportation processes, fluctuations, and irreversible processes.

### **CHE 674 - Structural and Physical Biochemistry**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: CHE 474

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.

### **CHE 675 - Advanced Organic Chemistry**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Structure and stereochemistry, chirality, conformational analysis. Molecular orbital theories and applications to organic chemistry. Aromaticity. Introduction to organic mechanisms. Methods of deciphering organic mechanisms.

### **CHE 676 - Introduction to Organic Synthesis: Methodology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Functional group transformations and carbon-carbon bond-forming reactions. Basic design strategies and advanced synthetic techniques including protection and functional group equivalency.

### **CHE 677 - Proteins and Nucleic Acids Lab**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: BCM 677

Double Numbered with: CHE 477

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.

### **CHE 678 - Perspectives in Biochemistry**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: BCM 678

Survey of Biochemistry with emphasis on the unifying concepts of Chemistry and Biology, requiring a graduate-level background in science.

### **CHE 685 - Organic Mechanisms**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Ionic mechanisms: displacements, addition eliminations, arrangements. Catalysis. Free radical mechanisms. Molecular mechanisms, including applications of orbital symmetry and frontier molecular orbital theory to organic reactions.

### **CHE 686 - Advanced Organic Synthesis: Design**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

The design, planning, and execution of multi-step organic syntheses. Asymmetric, enzymatic, and

## GRADUATE COURSE CATALOG

solid phase synthetic methods. Retrosynthetic analysis and combinatorial techniques.

### CHE 690 - Independent Study

#### *College of Arts and Sciences*

1-6 credit(s) Every semester  
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.  
Repeatable

### CHE 997 - Masters Thesis

#### *College of Arts and Sciences*

1-15 credit(s) Every semester  
Repeatable

### CHE 999 - Doctoral Dissertation

#### *College of Arts and Sciences*

1-15 credit(s) Every semester  
Repeatable

## Chinese

### CHI 620 - Language Training in Preparation for Research Using Chinese

#### *College of Arts and Sciences*

3 credit(s)  
Language training to prepare students to conduct research in areas that require knowledge of Chinese.  
Repeatable 3 time(s), 12 credits maximum

## Communication Sciences and Disorders

### CSD 609 - Cognitive Neuroscience of Speech and Language

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered 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.

### CSD 611 - Motor Speech Disorders

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Neuroanatomy, neurophysiology of brain motor systems. Characteristics, assessment and treatment of the dysarthrias and apraxia of speech in children and adults due to congenital or acquired etiologies, including degenerative diseases. Application of basic principles of motor learning in treatment.

PREREQ: CSD 315 OR CSD 615 AND CSD 409 OR CSD 609

### CSD 612 - Genetics, Cleft Palate and Craniofacial Disorders

#### *College of Arts and Sciences*

3 credit(s) Only during the summer  
Genetic bases of craniofacial disorders, cleft palate and other disorders. Basic molecular and clinical genetics. Communicative disorders related to cleft palate and other craniofacial disorders. Anatomy, physiology, craniofacial embryology. Characteristics, diagnosis, treatment of cleft palate.  
PREREQ: CSD 315

### CSD 615 - Anatomy and Physiology of the Speech and Hearing Mechanisms

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CSD 315  
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.

### CSD 616 - Introduction to Applied Phonetics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CSD 316  
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. Additional work required of graduate students.

### CSD 618 - Dysphagia

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Anatomy and physiology of normal and disordered swallowing. Description of swallowing disorders associated with numerous medical conditions. Assessment and treatment of swallowing disorders in adults and children.  
PREREQ: CSD 609 OR CSD 615

### CSD 622 - Development of Speech and Language

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CSD 422  
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 623 - Language Disorders of Early Childhood

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Assessment and intervention strategies for birth to 5 years in home, clinic, and school. Presymbolic communication, precursors to written language, individual/ cultural differences, social, cognitive, familial, community factors; specific language impairment, pervasive developmental disorders, cognitive impairments.

### CSD 625 - Stuttering

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CSD 425  
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 616 AND CSD 622

### CSD 627 - Articulation Disorders

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CSD 427  
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 616

### CSD 629 - Basic Clinical Audiology

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CSD 429  
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 635 - Aural Rehabilitation

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: CSD 435  
Study of the management of children and adults

## GRADUATE COURSE CATALOG

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 637 - Instrumentation for Speech and Hearing**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Basic function and use of instrumentation, including calibration standards and methods of calibration for equipment used in clinical evaluation and treatment. Includes physical characteristics and measurement of acoustic and non-acoustic stimuli, basic principles of electric circuits, and bioelectric safety.

### **CSD 638 - Clinical Phonology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Overview of principles and concepts of phonology; applications of various theories of phonology in clinical settings. Focus on both assessment and treatment of phonological disorders. Practice with formal and informal phonological analysis procedures.

PREREQ: CSD 616, CSD 627

### **CSD 645 - Speech Science**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: CSD 345

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.

### **CSD 646 - Augmentative and Alternative Communication Systems**

#### **College of Arts and Sciences**

3 credit(s) Only during the summer

Double Numbered with: CSD 446

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 650 - Clinical Classroom Practicum**

#### **College of Arts and Sciences**

0-4 credit(s) Every semester

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.

COREQ: CSD 622 AND CSD 651

Repeatable

### **CSD 651 - Clinical Methods in Speech-Language Pathology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: CSD 451

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.

### **CSD 657 - Voice Disorders**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Characteristics, assessment and treatment of voice disorders in adults and children. Anatomy and physiology of the vocal mechanism, functional, organic and neurological dysphonias, resonance disorders and laryngectomy.

PREREQ: CSD 615, CSD 645

### **CSD 658 - Auditory Anatomy and Physiology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Anatomy and physiology of outer, middle, and inner ear; central auditory mechanisms in normal systems. Underlying systems and signals theory will be used to explain response measurement techniques and auditory response analysis.

### **CSD 659 - Introduction to Research in Audiology and Speech Language Pathology**

#### **College of Arts and Sciences**

1 credit(s) At least 1x fall or spring

Guided instruction on how to critically read a research article, how to effectively search the literature and libraries for original sources; provide a forum for peer discussion of research articles.

### **CSD 661 - Advanced Clinical Audiology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Rationale and development of clinical tests of auditory function. Pure tone and speech audiometry, masking, acoustic impedance, special auditory tests, and calibration.

### **CSD 662 - Pediatric Audiology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Developmental anatomy and physiology of the auditory mechanism. Causes and characteristics of childhood auditory disorders. Behavioral and nonbehavioral techniques for auditory assessment. Rehabilitation and counseling of hearing-impaired children.

### **CSD 663 - Evoked Response I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Principles of auditory evoked response measurement techniques and interpretation of results. Focus on early latency evoked responses including the auditory brainstem response in individuals with normal hearing and hearing loss.

PREREQ: CSD 661

COREQ: CSD 658

### **CSD 664 - Evoked Response II**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Otoacoustic emissions in individuals with normal hearing and hearing loss. Middle and longlatency endogeneous and exogeneous electrical potentials in individuals with normal and impaired hearing.

PREREQ: CSD 663

### **CSD 665 - Medical Audiology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Anatomical and physiological defects that characterize disorders of the middle ear, inner ear, auditory nerve, and central auditory nervous system. Psychoacoustic manifestations of auditory lesions. Familiarization with medical and surgical treatment of otologic disorders.

PREREQ: CSD 429/CSD 629

### **CSD 666 - Speech Perception & Acoustics**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Auditory perception and the psychological correlates of the physical aspects of sound, acoustic phonetics, speech perception in normal-hearing and hearing-impaired individuals.

PREREQ: CSD 325

### **CSD 667 - Rehabilitative Audiology**

#### **College of Arts and Sciences**

3 credit(s) Only during the summer

## GRADUATE COURSE CATALOG

Demographics of hearing impairment; speech perception of hearing-impaired people; principles of amplification and other sensory prostheses; manual communication; speech reading; hearing handicap scales; psychosocial aspects of hearing impairment; special needs of the geriatric client.

### **CSD 668 - Cerumen Management**

#### ***College of Arts and Sciences***

1 credit(s) Only during the summer  
Ear canal examination, cerumen and the canal secretory system, cerumen management, audiometric and immittance data, contraindications.

### **CSD 673 - Hearing Aids I**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Historical development of hearing aids, electroacoustic measurements of hearing aids, compression technology and ear mold acoustics.

### **CSD 674 - Hearing Aids II**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Strategies used to select and fit amplification for hearing impaired children and adults, subjective measure, monaural and binaural effects, and troubleshooting.  
PREREQ: CSD 673

### **CSD 675 - Auditory Processing Disorders**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Focus on the identification and diagnosis of Central Auditory Processing Disorders through the use of case history/questionnaires, speech audiometric tests, non-verbal tests and electrophysiological measures.  
PREREQ: CSD 661

### **CSD 677 - Speech-Language Pathology in School Settings**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Double Numbered with: CSD 477  
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 422/CSD 622

### **CSD 723 - Assessment of Children's Language**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Formal and informal assessment procedures for syntactic, semantic, and pragmatic aspects of oral and written language; computerized analysis of language samples; cognitive, social, familial, educational, psychometric, and multicultural factors in test interpretation and treatment efficacy.  
PREREQ: CSD 422/CSD 622

### **CSD 725 - Neuropathologies of Language**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Characteristics, diagnosis, and treatment of aphasia. Other communicative disorders: confused language, language of generalized intellectual impairment, dysarthria, and apraxia. Neuroanatomy, neurophysiology, historical trends, nature of aphasia, diagnosis and treatment.  
PREREQ: CSD 315 OR CSD 615

### **CSD 731 - Language Disorders in School-Age Children**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Theory and research in oral and written language processing interventions. Curriculum-based assessment; intervention strategies for children and adolescents with language/learning disabilities. Compensatory strategies, environmental adaptations, cultural considerations, behavioral and pharmacological management, motivation, social skills instruction. Background in normal language acquisition and assessment procedures required.

### **CSD 750 - Seminars in Speech-Language Pathology**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest  
Special topics in speech and language development and disorders, such as pragmatic development in children, stuttering, organic disorders, and recent advances in assessment and management of speech and language disorders.  
Repeatable

### **CSD 753 - Readings in Neuroscience**

#### ***College of Arts and Sciences***

0-3 credit(s) Irregularly  
Crosslisted with: BEN 613, BIO 624, NEU 613, PSY 778  
A literature-based team-taught course focusing on in depth discussions of classical or recent papers of exceptional import to neuroscience. Students

will complete weekly readings assigned by faculty and participate in a 3-hr/wk group facilitated discussion

### **CSD 754 - Interdisciplinary Methods of Neuroscience**

#### ***College of Arts and Sciences***

0-3 credit(s) Irregularly  
Crosslisted with: BEN 614, BIO 625, NEU 614, PSY 779  
A practical interdisciplinary survey course whereby neuroscience faculty introduce students to a wide array of methodologies, including molecular, cellular, developmental, systems, behavioral, and cognitive neuroscientific approaches to investigate basic, pre-clinical, translational, and clinical questions to unravel the relationship between brain and behavior.

### **CSD 760 - Directed Research**

#### ***College of Arts and Sciences***

1 credit(s) Every semester  
Supervised laboratory experience in conducting research in the speech and hearing sciences. Permission of instructor.  
Repeatable 1 time(s), 2 credits maximum

### **CSD 780 - Seminar in Audiology**

#### ***College of Arts and Sciences***

3-9 credit(s) Upon sufficient interest  
Special topics, such as special auditory tests, evaluation of special populations, new clinical procedures, and professional issues.  
Repeatable

### **CSD 781 - Hearing Conservation and Environmental Audiology**

#### ***College of Arts and Sciences***

2 credit(s) Even Academic Yr e.g. 2004-5  
Physiological, medical, and legal aspects of industrial audiology. Concomitant psychological and social ramifications. Current preventive and rehabilitative techniques.

### **CSD 783 - Cochlear Implants**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Physiology underlying electrical stimulation of the auditory system and perceptual attributes, signal processing of various implant devices, principles of mapping implants, and rehabilitation of cochlear implant recipients.

### **CSD 785 - Professional Issues in Audiology**

#### ***College of Arts and Sciences***

2 credit(s) Only during the summer  
Ethics, licensure, credentialing, multicultural, and other current issues in audiology.

## GRADUATE COURSE CATALOG

### **CSD 787 - Vestibular Assessment and Management**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8  
Anatomy and physiology of peripheral and central vestibular system; assessment of normal and impaired individuals with focus on electronystagmography; vestibular and balance disorders; rehabilitation techniques.  
PREREQ: CSD 663

### **CSD 788 - Pharmacology in Audiology**

#### **College of Arts and Sciences**

2 credit(s) Even Academic Yr e.g. 2004-5  
Pharmacology as it relates to the practice of Audiology. Basic concepts, biochemical basis for hearing, ototoxic and vestibulotoxic agents, patient management, FDA policies, and hair cell regeneration will be covered.

### **CSD 798 - Current Research in Audiology and Speech Pathology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Objective evaluation of current research in audiology and speech pathology. Opportunities to gain multiple experiences synthesizing and presenting published research data. Exposure to the research process through independent investigations.

### **CSD 799 - Independent Research in Speech Pathology or Audiology**

#### **College of Arts and Sciences**

0-9 credit(s) Every semester  
Specific problems in normal or disordered processes in speech, language, or auditory systems.  
Repeatable 4 time(s), 9 credits maximum

### **CSD 996 - Internship in Audiology**

#### **College of Arts and Sciences**

0-8 credit(s) Every semester  
Supervised internship in a clinic, hospital and rehabilitation center, or school setting with an accredited audiologist. Variable length experience, earn V-grade until complete, leading to a letter grade. Must be in good standing in the audiology program and with permission of audiology clinic director.

## **Earth Sciences**

### **EAR 510 - Paleolimnology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
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**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest  
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**

#### **College of Arts and Sciences**

1-3 credit(s) Upon sufficient interest  
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. Repeatable

### **EAR 601 - Hydrogeology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Double Numbered with: EAR 401  
Fundamentals of groundwater hydraulics. Aquifer flow systems analysis and evaluation. Groundwater-surfacewater relationships. Groundwater chemistry. Additional work required of graduate students.

### **EAR 602 - Numerical Methods in Geosciences**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Double Numbered with: EAR 402  
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.

### **EAR 603 - Geomorphology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Double Numbered with: EAR 403  
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.

### **EAR 604 - Advanced Structural Geology**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Double Numbered with: EAR 404  
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 EAR 333

### **EAR 605 - Global Change: Geologic Record**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Double Numbered with: EAR 405  
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.

### **EAR 606 - Reflection Seismology: Theory and Practice**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest  
Double Numbered with: EAR 406  
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 607 - Climate Change and Human Origins**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Double Numbered with: EAR 407  
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 610 - Applications of GIS in the Earth Sciences**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Double Numbered with: EAR 410  
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.



## GRADUATE COURSE CATALOG

### **EAR 611 - Introduction to Geophysical Methods**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

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 617 - Geochemistry**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: EAR 417

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.

PREREQ: EAR 314 AND CHE 107 AND 117

### **EAR 618 - Petrology**

#### **College of Arts and Sciences**

4 credit(s) Upon sufficient interest

Double Numbered with: EAR 418

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.

### **EAR 619 - Environmental Aqueous Geochemistry**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: EAR 419

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 620 - Contaminant Hydrogeology**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8

Double Numbered with: EAR 420

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: EAR 401

### **EAR 624 - Paleoecology**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Principles and applications of paleoecology, using examples from both marine and terrestrial ecosystems. Analysis of fossil communities.

Ecology of mass extinctions. Functional morphology. Predator- prey relationships. Effects of climate/environmental change on ecosystems and species. Discussion oriented combination of lecture, lab, and field trips.

PREREQ: EAR 325

### **EAR 629 - Topics in Paleobiology**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Double Numbered with: EAR 429

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

Repeatable 2 time(s), 9 credits maximum

### **EAR 630 - Topics in Thermochemistry & Tectonics**

#### **College of Arts and Sciences**

2 credit(s) Upon sufficient interest

Double Numbered with: EAR 430

Seminar will focus on research topics in thermochemistry and tectonics from current literature. Additional work required of graduate students.

Repeatable 3 time(s), 8 credits maximum

### **EAR 631 - Plate Tectonics**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Double Numbered with: EAR 431

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 333 AND PHY 212 AND MAT 296

### **EAR 632 - Seafloor Spreading and Oceanic Lithosphere**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Double Numbered with: EAR 432

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 333

### **EAR 633 - Topics in Active Tectonics**

#### **College of Arts and Sciences**

2 credit(s) Upon sufficient interest

Double Numbered with: EAR 433

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 EAR 431

Repeatable 2 time(s), 6 credits maximum

### **EAR 635 - Geophysics**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Double Numbered with: EAR 435

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: EAR 333 AND MAT 296

### **EAR 643 - Advanced Topics in Geomorphology**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Double Numbered with: EAR 443

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 603

Repeatable 1 time(s), 6 credits maximum

### **EAR 644 - Thermochemistry**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Double Numbered with: EAR 444

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 thermochemistry to tectonics and landscape evolution, P-T-t paths of crustal terranes.

Additional work required of graduate students.

PREREQ: EAR 418

### **EAR 655 - Geochemical Patterns in the History of Earth and Life**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Double Numbered with: EAR 455

Insights gained from the geochemistry of fossils and sedimentary sequences into the history of the Earth's surface. Emphasis on relationships

## GRADUATE COURSE CATALOG

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 617

### EAR 660 - Advanced Hydrologic Field Methods

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
Hands-on experience using current instrumentation and measurement techniques in hydrology. Emphasizing fundamental theory governing application, demonstrations of application from the literature and field experiments.

### EAR 665 - Groundwater Modeling

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5  
Fundamentals of groundwater and solute movement in the subsurface and how these processes are simulated by numerical finite-difference models. Topics include conceptual model development, boundary conditions, calibration and sensitivity analysis. PREREQ: EAR 401

### EAR 670 - Experience Credit

#### *College of Arts and Sciences*

1-6 credit(s) Every semester  
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: permission, in advance, of assigned instructor, department chair, or dean. Repeatable

### EAR 678 - Isotope Geology

#### *College of Arts and Sciences*

3 credit(s) Upon sufficient interest  
Double Numbered with: EAR 478  
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, <sup>14</sup>C dating; O, H, and C isotope geochemistry. Additional work required of graduate students. PREREQ: EAR 417 OR EAR 617

### EAR 683 - Departmental Colloquium

#### *College of Arts and Sciences*

1 credit(s) Every semester  
Double Numbered with: EAR 483  
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.  
Repeatable 2 time(s), 3 credits maximum

### EAR 860 - Advanced Seminars in Geology

#### *College of Arts and Sciences*

1-3 credit(s) Upon sufficient interest  
Current literature and problems in specialized fields of geology. Repeatable

### EAR 997 - Masters Thesis

#### *College of Arts and Sciences*

0-9 credit(s) Every semester  
Repeatable

### EAR 999 - Dissertation

#### *College of Arts and Sciences*

1-15 credit(s) Every semester  
Repeatable

## Economics

### ECN 500 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### ECN 505 - Mathematical Economics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Introduction to use of basic mathematical techniques in economic analysis. PREREQ: (ECN 301 OR ECN 311) AND (MAT 295 AND MAT 296)

### ECN 510 - Special Topics in Economics

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Various special topics of economics issues offered as available. PREREQ: ECN 301 OR 311  
Repeatable 5 time(s), 18 credits maximum

### ECN 521 - Economic Statistics

#### *College of Arts and Sciences*

3 credit(s) Every semester  
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 ECN 102) OR ECN 203) AND (MAT 295 AND MAT 296)

### ECN 522 - Econometric Methods

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Statistical procedures. Problems of estimating parameters in regression models of economic behavior. PREREQ: (ECN 302 AND ECN 521) AND (ECN 301 OR 311)

### ECN 525 - Economics and Gender

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

1-12 credit(s) Upon sufficient interest  
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. Repeatable

## English

### ENG 615 - Open Poetry Workshop

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Participants write original poems, receive each other's critiques, and revise.

### ENG 617 - Open Fiction Workshop

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Participants write original stories, receive each other's critiques, and revise.

## GRADUATE COURSE CATALOG

### ENG 630 - Graduate Proseminar

#### *College of Arts and Sciences*

3 credit(s)

Introduction to a comprehensively defined field or period that places literary, cultural, and cinematic texts in historical and critical perspective.

Repeatable 10 time(s), 36 credits maximum

### ENG 631 - Critical Theory

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Overview of major issues in critical theory: the debates over the understanding of meaning, subjectivity, textuality, and historicity. Required of all new M.A. and Ph.D. students.

### ENG 650 - Forms

#### *College of Arts and Sciences*

3 credit(s) Every semester

Students in Forms courses will analyze assigned writings with the purpose of discovering the author's intent.

Repeatable 6 time(s), 24 credits maximum

### ENG 715 - First Poetry Workshop

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

First poetry workshop in the M.F.A. creative writing program sequence. Intensive practice in the writing and criticism of poetry.

### ENG 716 - Second Poetry Workshop

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Secondary poetry workshop in the M.F.A. program sequence.

PREREQ: ENG 715

### ENG 717 - First Fiction Workshop

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

First fiction workshop in the M.F.A. creative writing program sequence. Intensive practice in the writing and criticism of fiction.

### ENG 718 - Second Fiction Workshop

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Second fiction workshop in the M.F.A. program sequence.

PREREQ: ENG 717

### ENG 719 - Third Poetry Workshop

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Third poetry workshop in the M.F.A. program sequence.

PREREQ: ENG 715, ENG 716

### ENG 721 - Third Fiction Workshop

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Third fiction workshop in the M.F.A. program sequence.

PREREQ: ENG 717, ENG 718

### ENG 730 - Graduate Seminar

#### *College of Arts and Sciences*

3 credit(s)

A study in a particular topic, genre, movement, or critical problem. Introductory background in the larger field or period of framing the seminar focus is assumed.

Repeatable 10 time(s), 36 credits maximum

### ENG 799 - M.F.A. Essay Seminar

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

In this writing-intensive class M.F.A. students complete full length critical essays on major writers to demonstrate their mastery of: a) close reading, b) poetic or fictional technique, and c) essay writing.

PREREQ: ENG 715 AND ENG 716 OR ENG 717 AND ENG 718

### ENG 990 - Independent Study

#### *College of Arts and Sciences*

1-6 credit(s) Every semester

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.

Repeatable

### ENG 996 - Graduate Readings

#### *College of Arts and Sciences*

3 credit(s)

To be used for field exam study, and where necessary, study to meet language requirement. May be taken four times for credit.

Repeatable 3 time(s), 12 credits maximum

### ENG 997 - Thesis

#### *College of Arts and Sciences*

1-6 credit(s) Every semester

Repeatable 10 time(s), 12 credits maximum

### ENG 999 - Dissertation

#### *College of Arts and Sciences*

1-15 credit(s) Every semester

Credit designated from time to time as the dissertation progresses. Maximum total of 30 credits.

Repeatable 10 time(s), 15 credits maximum

## English as a Second Language

### ENL 610 - Oral Communication in Teaching

#### *College of Arts and Sciences*

0 credit(s) Every semester

Language, culture, and teaching strategies needed for effective communication in academic and social situations. Laboratory and individualized language instruction included. For international teaching assistants.

Repeatable

### ENL 615 - Enhancing Listening, Speaking and Presentation Skills in English

#### *College of Arts and Sciences*

0 credit(s) Every semester

Develops oral communication and pronunciation for academic and non-academic settings. The work includes activities to enhance listening, speaking, and presentation skills regarding cultural and field-specific topics, while developing effective teamwork strategies.

### ENL 620 - Advanced Oral Communication in Training

#### *College of Arts and Sciences*

0 credit(s)

Continuing course in language, culture, and teaching strategies needed for effective communication in academic and social situations. For international teaching assistants.

PREREQ: ENL 207 OR ENL 610

### ENL 640 - Conversation for International Teaching Assistants

#### *College of Arts and Sciences*

0 credit(s) Every semester

## French and Francophone Studies

### FRE 600 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) At least 1x fall or spring

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### FRE 605 - French Culture in Age of Louis XIV

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

Double Numbered with: FRE 405

Study of French literature, aesthetics and culture of absolutism. Conducted in French. Additional work required of graduate students.

## GRADUATE COURSE CATALOG

### **FRE 607 - French Libertine Fictions**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Double Numbered with: FRE 407

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 609 - French Culture and Revolution**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8

Double Numbered with: FRE 409

French enlightenment literature and culture considered within the context of the French Revolution. Conducted in French. Additional work required of graduate students.

### **FRE 611 - Moliere**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Double Numbered with: FRE 411

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 612 - French Women Writers**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: WGS 612

Double Numbered with: FRE 412

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 617 - "Impressions d'Afrique":Caribbean Gazes**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8

Double Numbered with: FRE 417

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 619 - Sembene Ousmane and the African Cinema**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Double Numbered with: FRE 419

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 620 - Language Training in Preparation for Research Using French**

#### ***College of Arts and Sciences***

3 credit(s)

Language training to prepare students to conduct research in areas that require knowledge of French.

Repeatable 3 time(s), 12 credits maximum

### **FRE 621 - Francophone African Criticism**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Double Numbered with: FRE 421

Major trends in Francophone African literary criticism. Conducted in French. Additional work required of graduate students.

### **FRE 627 - The Renaissance Body**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Double Numbered with: FRE 427

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 631 - Montaigne and the New World of Renaissance Writing**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Double Numbered with: FRE 431

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.

## **Forensic Science**

### **FSC 606 - Advanced Forensic Science**

#### ***College of Arts and Sciences***

3 credit(s) Every semester

Double Numbered with: FSC 406

Selected areas of current interest in forensic science presented. The application of scientific methods and techniques to crime detection and the law.

PREREQ: CHE 113 OR CHE 106 OR CHE 109 OR BIO 121

### **FSC 631 - Statistics for Forensic Science**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 431

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 632 - Research and Career Resources**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Provides practical skills and resources for research and careers in forensic science. Effective and ethical research and literature interpretation, critical thinking skills, communication methods specific to forensic science and their potential discovery issues, trial procedures.

### **FSC 633 - Quality Assurance and Ethics**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Application of the ISO standard for accredited forensic laboratories. Ethical decision model; case studies; root cause analysis; corrective action; document control; method validation; roles of police, attorneys, forensic scientists; ethical issues in U.S. legal system.

### **FSC 635 - Medicolegal Death Investigation I**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 435

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 636 - Medicolegal Death Investigation II**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 436

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 637 - Medicolegal Death Investigation for Emergency Responders**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 437

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

## GRADUATE COURSE CATALOG

scene, death investigation laws and other topics. Additional work required of graduate students.

### **FSC 640 - Special Topics in Advanced Forensics**

#### **College of Arts and Sciences**

3 credit(s) Every semester

Double Numbered with: FSC 440

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.

Repeatable

### **FSC 644 - Forensic Chemical Analysis**

#### **College of Arts and Sciences**

4 credit(s) At least 1x fall or spring

Double Numbered 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; CHE 117 OR 139

### **FSC 651 - Forensic Pathology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 451

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 652 - Forensic Mental Health**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 452

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 653 - Forensic Toxicology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 453

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.

### **FSC 654 - Nuclear Forensics**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered with: FSC 454

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 657 - Principles of Human Toxicology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: BIO 657

Double Numbered with: FSC 457

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 658 - Scientific Regulation and Compliance**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Basis for regulations and implications for different careers in complying with laws, regulations, guidelines and specifications relevant to businesses like pharmaceutical, biotechnology, research, forensic and government laboratories. Implications for not complying with regulations. Case studies.

### **FSC 661 - Firearms and Impression Evidence**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 461

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 662 - Forensic Entomology**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8

Double Numbered with: FSC 462

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 663 - Bloodstain Pattern Analysis**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 463

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 665 - Latent Prints**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 465

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 667 - Forensic Photography**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 467

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 668 - Crime Scene Investigation**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: FSC 468

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 669 - Science of Countering Weapons of Mass Destruction**

#### **College of Arts and Sciences**

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: BIO 669

## GRADUATE COURSE CATALOG

Double Numbered with: FSC 469  
Scientific basis and means for countering WMDs, including biological systems. Protective measures, proven doctrines, practical questions, and problem solving. Additional work required of graduate students.

### **FSC 671 - Firearms and Impressions Evidence II**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Modeled after an internationally recognized firearms examiner training program. Students operate comparison microscopes, perform firearms comparisons, receive operability/armors training, and view firearms manufacturing processes to understand the forensic identification of fired ammunition components.  
PREREQ: FSC 661

### **FSC 672 - Advanced Light Microscopy**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Crosslisted with: BIO 672  
Double Numbered with: FSC 472  
Theory and practice of modern light microscopy, including the fundamentals of image formation and applications in the biological and biomedical sciences, including reviews of microscopy methods and analog and digital image capture. Additional work required of graduate students.

### **FSC 676 - Cold Cases**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: BIO 676  
Double Numbered with: FSC 476  
Methods and practice in solving unsolved cases using fundamental science, court documents, and other sources of information. Will include work on real cases. Additional work required of graduate students.

### **FSC 690 - Independent Study**

#### **College of Arts and Sciences**

1-6 credit(s) Upon sufficient interest  
Repeatable

## **Geography**

### **GEO 500 - Topics in Geography**

#### **College of Arts and Sciences**

1-6 credit(s) At least 1x fall or spring  
In-depth studies of selected topics.  
Repeatable

### **GEO 537 - Environmental Policy in a Development Context**

#### **College of Arts and Sciences**

3 credit(s) Every semester  
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 561 - Global Economic Geography**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Globalization, world economic processes, international development, and policy issues; emphasizing geographical perspectives.

### **GEO 563 - The Urban Condition**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Contemporary cities. Economic growth and decline. Social polarization. Construction of the built environment. Case studies from around the world.

### **GEO 564 - Urban Historical Geography**

#### **College of Arts and Sciences**

3 credit(s) Even Academic Yr e.g. 2004-5  
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 572 - Landscape Interpretation in Cultural Geography**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest  
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**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8  
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**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
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**

#### **College of Arts and Sciences**

1-12 credit(s) Irregularly  
Reading and special work.  
Repeatable

### **GEO 583 - Environmental Geographical Information Science**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
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 GEO 683

### **GEO 595 - Geography and the Internet**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
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 580 - International Course**

#### **College of Arts and Sciences**

1-12 credit(s) Irregularly  
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.  
Repeatable

### **GER 600 - Selected Topics**

#### **College of Arts and Sciences**

1-6 credit(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.  
Repeatable

### **GER 620 - Language Training in Preparation for Research Using German**

#### **College of Arts and Sciences**

3 credit(s)

## GRADUATE COURSE CATALOG

Language training to prepare students to conduct research in areas that require knowledge of German.

Repeatable 3 time(s), 12 credits maximum

### Greek

#### GRE 500 - Greek Prose Authors

##### *College of Arts and Sciences*

1-3 credit(s) Upon sufficient interest

Readings from selected Greek prose authors.

Repeatable

#### GRE 620 - Language Training in Preparation for Research Using Greek

##### *College of Arts and Sciences*

3 credit(s)

Language training to prepare students to conduct research in areas that require knowledge of Greek.

Repeatable 3 time(s), 12 credits maximum

### Hebrew

#### HEB 620 - Language Training in Preparation for Research Using Hebrew

##### *College of Arts and Sciences*

3 credit(s)

Language training to prepare students to conduct research in areas that require knowledge of Hebrew.

Repeatable 3 time(s), 12 credits maximum

### Hindi

#### HIN 620 - Language Training in Preparation for Research Using Hindi

##### *College of Arts and Sciences*

3 credit(s) Every semester

Crosslisted with: SAS 621

Language instruction to prepare students to conduct research in areas that require knowledge of Hindi. Permission of instructor.

Repeatable 4 time(s), 12 credits maximum

### History of Art

#### HOA 500 - Selected Topics

##### *College of Arts and Sciences*

1-6 credit(s) Every semester

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

#### HOA 510 - Italian Medieval Architecture and Urbanism

##### *College of Arts and Sciences*

3 credit(s) Every semester

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

##### *College of Arts and Sciences*

3 credit(s) Irregularly

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

##### *College of Arts and Sciences*

3 credit(s) Irregularly

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

##### *College of Arts and Sciences*

3-4 credit(s) Irregularly

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

##### *College of Arts and Sciences*

3 credit(s) Irregularly

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

##### *College of Arts and Sciences*

3-4 credit(s) Irregularly

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 - Arts and Ideas in the 17th Century

##### *College of Arts and Sciences*

3-4 credit(s) Irregularly

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

##### *College of Arts and Sciences*

3-4 credit(s) At least 1x fall or spring

Selected period, major figure(s) or monument(s) in painting, sculpture, or architecture.

PREREQ: HOA 105 AND 106

Repeatable 3 time(s), 16 credits maximum

#### HOA 560 - Arts and Ideas in the Nineteenth Century

##### *College of Arts and Sciences*

3-4 credit(s) Irregularly

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

##### *College of Arts and Sciences*

3 credit(s) Every semester

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

##### *College of Arts and Sciences*

3-4 credit(s) Irregularly

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

##### *College of Arts and Sciences*

3-4 credit(s) Odd academic yr e.g. 2007-8

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

## GRADUATE COURSE CATALOG

### HOA 577 - Introduction to Preservation

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

### HOA 600 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. \*  
Repeatable

### HOA 620 - Seminar: Renaissance Art

#### *College of Arts and Sciences*

3-6 credit(s) At least 1x fall or spring  
European art of the 15th and 16th centuries.  
Topic areas determined each semester.  
Repeatable

### HOA 621 - Seminar in Florentine Art

#### *College of Arts and Sciences*

3-6 credit(s) At least 1x fall or spring  
On-site study of late medieval, Renaissance, and baroque decorative complexes and their related archives. Taught only in Florence, Italy, during the spring semester.

### HOA 622 - Seminar in Renaissance Arts and Ideas

#### *College of Arts and Sciences*

3-6 credit(s) At least 1x fall or spring  
Preparation for study and research in Florence, Italy. Required of Florence Program participants; open to other students by permission.  
Repeatable 3 time(s), 12 credits maximum

### HOA 635 - Seminar in Arts and Ideas

#### *College of Arts and Sciences*

3-6 credit(s) Irregularly  
Selected topics in the arts and their relation to relevant societies. Topics determined each semester.  
Repeatable 3 time(s), 12 credits maximum

### HOA 640 - Seminar on Women in Art

#### *College of Arts and Sciences*

3-4 credit(s) Irregularly  
Crosslisted with: WGS 649  
Women artists and images of women in the works of their contemporaries. Students conduct original research, relating topic to their specific areas of interest (interdisciplinary studies).

### HOA 645 - Seminar in the History of Art Conservation

#### *College of Arts and Sciences*

3-6 credit(s) At least 1x fall or spring  
Theory, practice, and issues of art conservation from the Renaissance to the present. Taught only in Florence, Italy, during the spring semester.

### HOA 650 - Seminar in Seventeenth-Century Netherlandish Art

#### *College of Arts and Sciences*

4 credit(s) Irregularly  
Variable topics relating to art produced in the Dutch Republic and/or Flanders during the 17th century.  
Repeatable 2 time(s), 12 credits maximum

### HOA 651 - Seminar/Iconography

#### *College of Arts and Sciences*

3-6 credit(s) Irregularly  
Selected topics in iconographical problems to be determined each semester.  
Repeatable 3 time(s), 12 credits maximum

### HOA 652 - Vermeer and Dutch Genre Painting

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
This course examines the art of Johannes Vermeer in relation to that of his contemporaries.

### HOA 653 - Art & Patronage in England, 1558-1702

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
This interdisciplinary seminar will examine the nature and role of art in the celebrated Elizabethan, Jacobean, and Stuart courts of late sixteenth- and seventeenth-century England, up until the conclusion of the reign of William III.

### HOA 655 - Proseminar in Graduate Research Methods and Scholarly Writing

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Research methods and scholarly writing skills required to be successful M.A. candidates and to become competitive professionals in art history and related fields.

### HOA 656 - Literature of Art Criticism

#### *College of Arts and Sciences*

3-4 credit(s) At least 1x fall or spring  
Leading trends in art criticism from the 16th to the early 21st century.

### HOA 657 - Contemporary Art Criticism

#### *College of Arts and Sciences*

3-4 credit(s) Irregularly  
Early 20th-century foundations and development of criticism within the past two decades. Interpretive strategies, such as meta history, feminism, poststructuralism, and the anthropology of art.

### HOA 670 - Experience Credit

#### *College of Arts and Sciences*

1-6 credit(s) Irregularly  
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.  
Repeatable

### HOA 676 - Seminar in American Art

#### *College of Arts and Sciences*

3-6 credit(s) Irregularly  
A specified topic is announced each time the course is offered.  
Repeatable

### HOA 680 - International Course

#### *College of Arts and Sciences*

1-12 credit(s)  
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.  
Repeatable

### HOA 690 - Independent Study

#### *College of Arts and Sciences*

1-6 credit(s) Upon sufficient interest  
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.  
Repeatable

### HOA 720 - Seminar in Medieval Art

#### *College of Arts and Sciences*

3-6 credit(s) Irregularly  
In depth exploration of a problem relating to medieval art and/or architecture. Topic determined each semester.  
Repeatable

### HOA 740 - Seminar in Baroque Art

#### *College of Arts and Sciences*

3-6 credit(s) Irregularly



## GRADUATE COURSE CATALOG

Selected topics in the arts of the 17th century.  
Topics determined each semester.  
Repeatable

### HOA 756 - Seminar in Modern Art

#### *College of Arts and Sciences*

3-6 credit(s) Irregularly

Selected topics in the arts of the 20th century.  
Topics determined each semester.  
Repeatable

### HOA 757 - Art History Symposium Project

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Final M.A. research project, equivalent to a thesis, in which students research, write and orally present substantial and original scholarly work in art history. Permission of director of graduate studies.

### HOA 758 - Selected Readings in Arts & Ideas

#### *College of Arts and Sciences*

1-6 credit(s) Irregularly

Selected readings on the arts and their relationship to their times. Subject areas and readings determined each semester.

## History of Music

### HOM 500 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### HOM 512 - World Music and Film

#### *College of Arts and Sciences*

3 credit(s) Irregularly

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 561 - Music and Shakespeare

#### *College of Arts and Sciences*

3-4 credit(s) Irregularly

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

#### *College of Arts and Sciences*

3 credit(s) Irregularly

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

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

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

#### *College of Arts and Sciences*

3 credit(s) Irregularly

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

Repeatable 1 time(s), 6 credits maximum

### HOM 571 - Popular Music Studies

#### *College of Arts and Sciences*

3 credit(s) Irregularly

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

#### *College of Arts and Sciences*

3 credit(s) Irregularly

The American art song, emphasizing the 20th-century composers. Musical style of works, placed in their social and cultural contexts.

PREREQ: MTC 146

### HOM 592 - Music, Space and Place

#### *College of Arts and Sciences*

3 credit(s) Irregularly

An exploration of the relationships between music, space and place, considered from a variety of musical practices and scholarly methodologies.

### HOM 600 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest

to faculty and students in a particular semester.  
Repeatable

### HOM 680 - International Course

#### *College of Arts and Sciences*

1-12 credit(s) Irregularly

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.  
Repeatable

### HOM 685 - Contemporary Indigenous Soundscapes

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Double Numbered with: HOM 485

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.

## History

### HST 500 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### HST 510 - Studies in African American History

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: AAS 510

Particular periods or aspects of African American history.  
Repeatable

## Humanities

### HUM 501 - Humanism and the Arts in Renaissance Italy

#### *College of Arts and Sciences*

6 credit(s) Only during the summer

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.

## GRADUATE COURSE CATALOG

### Italian

#### ITA 620 - Language Training in Preparation for Research Using Italian

##### *College of Arts and Sciences*

3 credit(s)

Language training to prepare students to conduct research in areas that require knowledge of Italian.

Repeatable 3 time(s), 12 credits maximum

#### ITA 670 - Teaching Experience

##### *College of Arts and Sciences*

1 credit(s) Irregularly

For qualified seniors and graduate students. Supervised practical experience in teaching beginning and/or intermediate oral Italian. Repeatable

### Japanese

#### JPS 620 - Language Training in Preparation for Research Using Japanese

##### *College of Arts and Sciences*

3 credit(s)

Language training to prepare students to conduct research in areas that require knowledge of Japanese.

Repeatable 3 time(s), 12 credits maximum

### Judaic Studies Program

#### JSP 600 - Selected Topics

##### *College of Arts and Sciences*

1-6 credit(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.

Repeatable

#### JSP 676 - Religion and Jewish Literature

##### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: REL 676

Readings in Jewish literature, with emphasis on allegorical, hasidic, neohasidic, and anti-hasidic writing by Nahman of Bratslav, Joseph Perl, I.L. Peretz, Franz Kafka, Isaac Babel, and S. Y. Agnon.

#### JSP 690 - Independent Study

##### *College of Arts and Sciences*

1-6 credit(s) Irregularly

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. Repeatable

### World Language Program: Korean

#### KOR 620 - Language Training in Preparation for Research in Korean

##### *College of Arts and Sciences*

3 credit(s) Every semester

Language instruction to prepare students to conduct research in areas that require knowledge of Korean. Permission of instructor.

Repeatable 3 time(s), 12 credits maximum

### Latino-Latin American Studies

#### LAS 520 - Research on Latin America

##### *College of Arts and Sciences*

1-3 credit(s) Every semester

Reading and special work

Repeatable

#### LAS 523 - Globalization and its Discontents in Latin America

##### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

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

##### *College of Arts and Sciences*

3 credit(s) Every semester

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 620 - Language Training in Preparation for Research Using Latin

##### *College of Arts and Sciences*

3 credit(s)

Language training to prepare students to conduct research in areas that require knowledge of Latin. Repeatable 3 time(s), 12 credits maximum

### Linguistics

#### LIN 571 - Topics in Sociolinguistics

##### *College of Arts and Sciences*

3 credit(s) Upon sufficient interest

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. Repeatable 1 time(s), 6 credits maximum

#### LIN 580 - International Course

##### *College of Arts and Sciences*

1-12 credit(s) Upon sufficient interest

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. Repeatable

#### LIN 591 - Second Language Acquisition

##### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Survey of research on second-language acquisition; biological, cognitive, effective, and social factors.

PREREQ: LIN 301 OR LIN 601

#### LIN 600 - Selected Topics

##### *College of Arts and Sciences*

1-6 credit(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. Repeatable

#### LIN 601 - Introductory Linguistic Analysis

##### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 301

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.

#### LIN 611 - Semantics of Human Languages

##### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 411

Introduction to analysis of meaning in natural languages. Additional work required of graduate students.

PREREQ: LIN 601

#### LIN 612 - Pragmatics: Meaning and Context

##### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 412

## GRADUATE COURSE CATALOG

Introduction to aspects of linguistic meaning that are dependent on context and other non-linguistic factors.

PREREQ: LIN 601

### **LIN 621 - Introduction to Methodology of Teaching Languages: English/ Foreign Language Teaching**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 421

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 601

### **LIN 622 - Advanced Methods of Teaching Languages: English/Foreign Language Teaching**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 422

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 621/LIN 421

### **LIN 626 - Structure of Standard Arabic**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered with: LIN 426

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 631 - Phonological Analysis**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 431

Introduction to analysis of sound systems of natural languages. Extra work required of graduate students.

PREREQ: LIN 601/LIN 301

### **LIN 641 - Syntactic Analysis**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 441

Introduction to analysis of morphological and syntactic systems of natural languages. Extra work required of graduate students.

PREREQ: LIN 601/LIN 301

### **LIN 651 - Morphological Analysis**

#### **College of Arts and Sciences**

3 credit(s)

Double Numbered with: LIN 451

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 601

### **LIN 661 - Introduction to Historical Linguistics**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 461

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 601/LIN 301

### **LIN 671 - Dimensions of Bilingualism and Multiculturalism**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 471

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 672 - Language, Culture, and Society**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: ANT 672, WGS 672

Double Numbered with: LIN 472

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 673 - Language Variation and Change**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered with: LIN 473

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 675 - Forensic Linguistics**

#### **College of Arts and Sciences**

3 credit(s) Even Academic Yr e.g. 2004-5

Double Numbered with: LIN 475

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 681 - Global Communication Through World Englishes**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 481

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 691 - Universal Grammar and Second Language Acquisition**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: LIN 491

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 641

### **LIN 735 - Advanced Phonology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

A variety of phonological problems using an autosegmental or geometric approach. Stress and tone; gemination; compensatory lengthening; and certain morphological problems.

PREREQ: LIN 635/435

### **LIN 741 - Advanced Syntax**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8

Recent advances in syntactic theory and empirical studies conducted within the government and binding framework. Student construction of hypotheses and analysis of data.

PREREQ: LIN 641/441

### **LIN 997 - Masters Thesis**

#### **College of Arts and Sciences**

1-6 credit(s) Upon sufficient interest

## GRADUATE COURSE CATALOG

### Literature in English Translation

#### LIT 510 - Studies in Greek and Roman Literature in Translation

**College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Selected topics in Greek or Roman literature studied in English. No knowledge of Greek or Latin required.

Repeatable

#### LIT 521 - Mythology

**College of Arts and Sciences**

3 credit(s) Irregularly

Greek, Roman, and Norse myths. Knowledge of foreign languages not required.

### Mathematics

#### MAT 511 - Advanced Calculus

**College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

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

**College of Arts and Sciences**

3 credit(s) Every semester

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

**College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

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 MAT 511 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

#### MAT 517 - Partial Differential Equations and Fourier Series

**College of Arts and Sciences**

3 credit(s) Every semester

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

**College of Arts and Sciences**

3 credit(s) Irregularly

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

**College of Arts and Sciences**

3 credit(s) Every semester

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

**College of Arts and Sciences**

3 credit(s) Every semester

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

**College of Arts and Sciences**

3 credit(s) Every semester

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

**College of Arts and Sciences**

3 credit(s) Every semester

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

**College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

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

**College of Arts and Sciences**

3 credit(s) Every semester

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

**College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

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

**College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

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

**College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

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

## GRADUATE COURSE CATALOG

### **MAT 554 - Differential Geometry**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

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 MAT 511 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 562 - Elementary Topology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Metrics and metric spaces, topologies and topological spaces, separation properties, compactness, connectedness, and continuity. PREREQ: ((MAT 375 OR CIS 275) AND MAT 412) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 581 - Numerical Methods with Programming**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

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**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

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**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Topic Chosen by the instructor. Permission of department.

### **MAT 601 - Fundamentals of Analysis I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Real and complex numbers, elementary point set topology, sequences and series, continuity, differentiation.

PREREQ: MAT 512 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 602 - Fundamentals of Analysis II**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Riemann-Stieltjes integration, functional sequences and series, functions of several variables.

PREREQ: (MAT 601 AND MAT 631) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 631 - Introduction to Algebra I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Linear algebra, linear transformations, eigenvectors, diagonalization, inner product spaces, groups, quotient groups, group actions, Sylow theorems, finitely generated Abelian groups, rings, unique factorization domains, finitely generated modules over principal ideal domains, fields, Galois theory.

PREREQ: (MAT 531 AND MAT 534) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 632 - Introduction to Algebra II**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Continuation of MAT 631.

PREREQ: MAT 631 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 645 - Graph Theory**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 645

Fundamentals of graph theory and special topics including networks, matching, connectivity, planarity, and automorphism groups.

PREREQ: MAT 531 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 646 - Enumeration, Designs, and Matroids**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: CIS 646

Generating functions, Polya enumeration, set systems, design parameters, finite projective planes, matroids.

PREREQ: MAT 531 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 651 - Probability and Statistics I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Calculus of probabilities, univariate and multivariate random variables and distribution functions, expectations and variance, conditional distributions, transformations of random variables, characteristic functions, basic limit theorems including Borel-Cantelli, Khinchin, Lindeberg-Feller.

PREREQ: MAT 521 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 652 - Probability and Statistics II**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Point and interval estimation, consistent, efficient, and sufficient statistics, Rao-Blackwellization, hypothesis testing, brief treatment of ranking and selection, decision theory.

PREREQ: MAT 651 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 653 - Statistical Simulation and Nonstandard Data Analysis**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Simulation and Monte Carlo techniques appropriate where statistical theory does not yet provide a solution. Design and analysis of experiments under nonstandard conditions.

PREREQ: MAT 651 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 654 - Linear Models**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Point estimation by least squares, regression, curve fitting, testing a linear hypothesis, analysis of variance, simple experimental designs.

PREREQ: (MAT 525 AND MAT 531) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 661 - Introduction to Topology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Topological spaces, continuous mappings, compactness, connectedness, path connectedness, separation axioms, metric spaces, quotient spaces, CW complexes, the fundamental group, and the classification of 2-dimensional manifolds.

PREREQ: MAT 512 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 682 - Numerical Linear Algebra**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8

Solution of linear equations. Norms and conditioning. Calculation of eigenvalues and eigenvectors. Least squares approximation and orthogonal functions. Error analysis and writing computer programs.

PREREQ: MAT 511 AND MAT 531

### **MAT 683 - Methods of Numerical Analysis I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Numerical methods of interpolation,

## GRADUATE COURSE CATALOG

approximation, integration, and differentiation, solutions of nonlinear equations.  
PREREQ: MAT 512 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 684 - Methods of Numerical Analysis II**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Analysis of numerical methods for approximating solutions of ordinary and partial differential equations.  
PREREQ: MAT 683 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 687 - Introduction to Applied Mathematics**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Mathematical model building, dimensional analysis, scaling, and perturbation theory. Models selected from the natural and social sciences according to the interests of instructor and students. Examples are: planetary orbits, fluid flow, isomers in organic chemistry, biological competition, biochemical kinetics, and physiological flow.

### **MAT 690 - Independent Study**

#### **College of Arts and Sciences**

1-6 credit(s) Upon sufficient interest  
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.  
Repeatable

### **MAT 701 - Real Variables I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Measure and integration, including basic theorems on integration and differentiation of sequences of functions; modes of convergence, product measures.  
PREREQ: MAT 602 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 702 - Functional Analysis I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Norms, seminorms, and inner products on linear spaces. Standard theorems on linear functionals and operations. Dual spaces and weak topologies, classical spaces and their duals. Applications.  
PREREQ: (MAT 631 AND MAT 661 AND MAT 701) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 704 - Differential Equations**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Existence theorems for ordinary differential equations, linear differential equations and systems, Euler variational equations, typical Cauchy and boundary-value problems for partial differential equations.  
PREREQ: (MAT 632 AND MAT 701) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 705 - Calculus on Manifolds**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Differentiable manifolds, differential forms, exterior calculus, integration over manifolds, Stokes' Theorem, other selected topics.  
PREREQ: (MAT 602 AND MAT 632 AND MAT 661) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 712 - Functions of a Complex Variable I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Cauchy theory, power series, analytic continuation, entire functions, the residue theorem, contour integration, maximum modulus theorem and applications, conformal representation. Dirichlet series, special functions.  
PREREQ: MAT 602 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 721 - Probability I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Measure and integration. Random variables, their distributions and transforms. Modes of convergence. Classical limit laws. Markov chains.  
PREREQ: (MAT 602 AND MAT 701) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 722 - Probability II**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Conditional expectation. Martingales. Brownian motion. Ergodic theorem. Random walks.  
PREREQ: MAT 721 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 731 - Rings and Modules**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Submodules, factor modules, chain conditions, Hilbert basis theorem, division rings, Schur's lemma, Jacobson density theorem, semi-simple modules, socles, Jacobson radical, semi-primitive rings, Artin-Wedderburn theorem, integral extensions, completions, localization.  
PREREQ: (MAT 631 AND MAT 632) OR GRADUATE

STANDING IN MATHEMATICAL SCIENCES

### **MAT 732 - Homological Algebra**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Projective and injective resolutions, Tor and Ext, flatness, homology, derived categories, spectral sequences.  
PREREQ: MAT 731 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 733 - Commutative Algebra**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Localization, primary decomposition, and dimension theory; Nullstellensatz; Artin-Rees lemma and completion; integral and flat extensions; Koszul complex, Cohen-Macaulay and regular rings.  
PREREQ: MAT 731

### **MAT 737 - Representations of Groups and Algebras**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
The course covers representations of finite groups and finite-dimensional algebras. Topics will come from: ordinary and modular representations of finite groups, Auslander-Reiten theory, representations of quivers, Koszul algebras, Hopf algebras and Frobenius algebras.  
PREREQ: MAT 731

### **MAT 738 - Introduction to Algebraic Geometry**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
The study of the zeros of polynomials. Classical algebraic varieties in affine and projective space, followed by introduction to modern theory of sheaves, schemes, and cohomology.  
PREREQ: MAT 632 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 750 - Statistical Consulting**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Crosslisted with: STT 750  
Experience in working with real data taken from current projects in the statistical laboratory and from published papers.  
Repeatable

### **MAT 752 - Statistical Ranking, Selection, and Multiple Comparisons**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Statistical selection of the best category or population. Preference-zone and subset formulations. Multivariate preferences and

## GRADUATE COURSE CATALOG

populations. Applications. Recent developments, including Multiple Comparisons with the Best (MCB) and the Heteroscedastic Method (HM). PREREQ: MAT 652 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 753 - Decision Theory**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Minimax theorems, completeness of the class of Bayes procedures. Invariance. Criteria for admissibility.

PREREQ: MAT 525 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 754 - Sequential Analysis**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

General sequential decision problems, sequential probability ratio test, sequential test among three hypotheses, sequential estimation, optimal stopping, Wald's identity. Generalized SPRT's, Cox's theorem, sequential regression, functional equations, dynamic programming, sequential choice of experiments.

PREREQ: MAT 525 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 755 - Multivariate Statistical Analysis**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Multivariate normal distribution, conditional densities, partial correlation, multiple correlation, regression coefficients, maximum likelihood estimates, Hotelling's statistic, Wishart distribution, tests of hypotheses, and linear discriminant functions.

PREREQ: MAT 525 OR MAT 532 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 761 - Introduction to Algebraic Topology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Fundamental group covering spaces, chain complexes, simplicial or singular homology and cohomology theory, exact sequences, and the Eilenberg-Steenrod axioms.

PREREQ: (MAT 632 AND MAT 661) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 762 - Algebraic Topology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Homology, cohomology ring, universal coefficient theorem, duality, homotopy, theory, selected topics.

PREREQ: (MAT 632 AND MAT 761) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 771 - Differential Geometry**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Differential manifolds, tensor fields and mappings, differential forms and Stokes's theorem, affine connections, exponential mapping, covariant differentiation, torsion and curvature tensors, Riemannian connections, complete Riemannian manifolds, other modern topics.

PREREQ: (MAT 602 AND MAT 632 AND MAT 661) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 781 - Advanced Numerical Methods I**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Numerical methods of linear algebra. Numerical treatment of large linear systems. Matrix inversions and eigenvalue analysis. Boundary and eigenvalue problems for ordinary and partial differential equations. Laboratory.

PREREQ: (MAT 632 AND MAT 684 AND MAT 704) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 782 - Advanced Numerical Methods II**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Continuation of MAT 781.

PREREQ: MAT 781 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 800 - Topics In Analysis**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **MAT 802 - Real Variables II**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Topics in real variables and measure theory, such as differentiation theory in euclidean and abstract spaces, generalized derivatives and integrals, ergodic theory, martingales, surface area.

PREREQ: MAT 701 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 804 - Functional Analysis II**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Abstract integration, Radon-Nikodym theorem. Representation of set functions by integrals.

Ergodic theorems. Duality. Weak topologies, convex sets, and extreme points. Elements of spectral theory.

PREREQ: MAT 702 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 805 - Partial Differential Equations**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

First-order linear equations. Hamilton, Jacobi, and Lie transformations. Classifications of second-order linear equations. Boundary- and initial-value problems. Sturm-Liouville problems and connections with integral equations. Nonlinear equations.

### **MAT 807 - Integral Equations**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Classification and examples of regular integral equations. Fredholm's theorems, Hilbert-Schmidt theory. Applications to differential equations. Nonlinear integral equations. Connections with general functional analysis.

PREREQ: MAT 804 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 812 - Functions of a Complex Variable**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Continuation of MAT 712

PREREQ: MAT 602 OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

### **MAT 820 - Topics in Probability**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Repeatable

### **MAT 830 - Topics in Modern Algebra**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Repeatable

### **MAT 850 - Topics in Statistics**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Contents vary from semester to semester. May be repeated for credit with permission.

### **MAT 860 - Topics in Topology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Repeatable

### **MAT 880 - Topics in Numerical Analysis and Applied Mathematics**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Repeatable

## GRADUATE COURSE CATALOG

### **MAT 890 - Advanced Seminar**

#### **College of Arts and Sciences**

1-6 credit(s) Irregularly  
For advanced graduate students and staff members; credit determined by extent of participation in the seminar.  
Repeatable

### **MAT 999 - Dissertation**

#### **College of Arts and Sciences**

0-15 credit(s) Every semester  
Research work on a doctoral dissertation, under supervision of some member of the graduate staff. Credit depends on amount of time devoted to the work; course may be repeated up to a maximum of 30 credits.  
Repeatable 14 time(s), 30 credits maximum

## **Neuroscience**

### **NEU 613 - Readings in Neuroscience**

#### **College of Arts and Sciences**

0-3 credit(s) Irregularly  
Crosslisted with: BEN 613, BIO 624, CSD 753, PSY 778  
A literature-based team-taught course focusing on in depth discussions of classical or recent papers of exceptional import to neuroscience. Students will complete weekly readings assigned by faculty and participate in a 3-hr/wk group facilitated discussion

### **NEU 614 - Interdisciplinary Methods of Neuroscience**

#### **College of Arts and Sciences**

0-3 credit(s) Irregularly  
Crosslisted with: BEN 614, BIO 625, CSD 754, PSY 779  
A practical interdisciplinary survey course whereby neuroscience faculty introduce students to a wide array of methodologies, including molecular, cellular, developmental, systems, behavioral, and cognitive neuroscientific approaches to investigate basic, pre-clinical, translational, and clinical questions to unravel the relationship between brain and behavior.

### **NEU 777 - Advanced Cognitive Neuroscience**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Crosslisted with: PSY 777  
The science of how thought processes are instantiated in the brain including advanced techniques for behavioral and neural data and approaches for linking them together. Applications that demonstrate the brain-behavior relationship.

## **Philosophy**

### **PHI 500 - Selected Topics**

#### **College of Arts and Sciences**

1-6 credit(s) Irregularly  
Study of a significant philosopher or philosophical movement.  
Repeatable

### **PHI 510 - Topics in Ancient Philosophy**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
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.  
Repeatable

### **PHI 550 - Selected Topics in Philosophy**

#### **College of Arts and Sciences**

1-3 credit(s) Irregularly  
Study of a significant philosophical problem.  
Repeatable

### **PHI 551 - Mathematical Logic**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
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**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
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**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
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**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Concept and phenomenon of language. Logical, epistemological, and metaphysical ramifications of natural language and speech.  
PREREQ: PHI 251

### **PHI 573 - Philosophy of Physical Science**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
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**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8  
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**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Advanced study of topics in philosophy of mind.  
PREREQ: PHI 301 OR 376 OR 377 OR 378 OR GRADUATE STANDING

### **PHI 583 - Metaphysics**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Introduction to metaphysical inquiry.  
PREREQ: ANY PHI OR JUNIOR OR SENIOR STANDING

### **PHI 593 - Ethics and the Health Professions**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
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**

#### **College of Arts and Sciences**

3 credit(s)  
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.

### **PHI 600 - Selected Topics**

#### **College of Arts and Sciences**

1-6 credit(s) Irregularly



## GRADUATE COURSE CATALOG

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **PHI 615 - Kant's Critique of Pure Reason**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Readings, papers, and discussions aimed at appraising value of the Critique, both as a historical document and as a continuing source of philosophical questions and answers.

### **PHI 617 - Proseminar:History of Philosophy**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Analysis of arguments and concepts in the history of philosophy. At least two major philosophical problems, as examined in the works of at least three major philosophers. Writing-intensive.

### **PHI 618 - Hegel, Marx, and Nietzsche**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Double Numbered with: PHI 418

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.

### **PHI 622 - Twentieth Century French and German Philosophy**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Double Numbered with: PHI 422

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.

### **PHI 629 - Islamic Metaphysics and Epistemology**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Crosslisted with: REL 629

In-depth study of the main epistemological systems and theories of metaphysics developed in Islamic intellectual tradition. Explores the systems of interpretation of the Qur'an and Sunnah developed by legal scholars, mystics and philosophers.

### **PHI 640 - Continental Philosophy of Religion**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Crosslisted with: REL 660

Continental philosophers such as Husserl, Heidegger, Levinas, Derrida, Foucault, Deleuze, Irigaray, and Marion. Their influence on theology, religious theory. Topics include overcoming onto-theology; phenomenology, deconstruction and theology; return of religion.

Repeatable 1 time(s), 6 credits maximum

### **PHI 650 - Selected Topics in Philosophy**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Repeatable

### **PHI 651 - Logic and Language**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Introduction to systems of formal logic and their relationships with natural language. Standard logic; its relationships with linguistics, philosophy, and mathematics. Translation and the limits of formalization.

### **PHI 665 - Problems in Philosophy of Language**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Selected areas or problems in the philosophy of language, e.g., meaning and reference, speech-act theory, logical form, referential opacity, generative semantics, or semantics and ontology.

Repeatable

### **PHI 673 - The Structure of Science**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Such topics as relations among observations, laws, and theoretical construct: nature of scientific explanations, philosophical theories of probability, and character of inductive reference.

### **PHI 687 - Proseminar: Language, Epistemology, Mind and Metaphysics**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Selected major philosophical problems in philosophy of language, epistemology, philosophy of mind, and/or metaphysics, as examined in the works of at least three major philosophers. Writing intensive.

### **PHI 693 - Proseminar: Moral and Political Philosophy**

#### ***College of Arts and Sciences***

3 credit(s) Every semester

Selected major philosophical problems in moral and political philosophy as examined in the works of at least three major philosophers. Writing intensive.

### **PHI 695 - Aesthetics**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Chief aesthetic theories from Plato to the present. Application to literature and the fine arts.

### **PHI 696 - Selected Problems in Aesthetics**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Philosophical issues that arise within the various arts and literature.

PREREQ: PHI 695

### **PHI 700 - Research in History of Philosophy**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **PHI 710 - Seminar in Ancient and Medieval Philosophy**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Repeatable

### **PHI 730 - Seminar in Modern Philosophy**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Repeatable

### **PHI 740 - Seminar in Contemporary Philosophy**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Repeatable

### **PHI 750 - Seminar in Current Philosophical Problems**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Repeatable

## GRADUATE COURSE CATALOG

### PHI 840 - Seminar in Metaphysics

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Repeatable

### PHI 850 - Seminar in Theory of Knowledge

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Repeatable

### PHI 860 - Seminar in Ethics and Value Theory

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Repeatable

### PHI 870 - Seminar in Aesthetics

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Repeatable

### PHI 880 - Seminar in Social and Political Philosophy

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Repeatable

### PHI 997 - Masters Thesis

#### *College of Arts and Sciences*

1-15 credit(s) Every semester  
Repeatable

### PHI 999 - Dissertation

#### *College of Arts and Sciences*

1-15 credit(s) Every semester  
Repeatable

## Physics

### PHY 523 - Advanced Mechanics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

4 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

1-12 credit(s)  
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.  
Repeatable

### PHY 581 - Methods of Theoretical Physics I

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

### PHY 607 - Computational Physics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Necessary numerical and computations tools for research in physics. The scope and implementation of scientific simulation algorithms for solving specific physics problems.  
PREREQ: PHY 211 OR 215 OR AP PHYSICS C (MECH) EXAM SCORE MIN 3

### PHY 614 - Graduate Laboratory

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
The student will select a topic in experimental physics and undertake an open-ended investigation with research-quality equipment in an active research laboratory or in a departmental facility. Ideas and progress will be discussed at a weekly seminar.

### PHY 615 - Biological and Medical Physics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: PHY 315  
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 621 - Classical Mechanics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Aspects of classical mechanics of significance to modern physical theory. Conceptual structure of Newton's mechanics, Lagrange's equations, Hamilton's principle, canonical equations and canonical transformations, Hamilton-Jacobi theory, small oscillations, rigid-body motion.

### PHY 635 - Physical Cell Biology

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Crosslisted with: BEN 635, BIO 635, CEN 635, CHE 635  
This interdisciplinary class for science and engineering students provides an introduction to the quantitative description of biological systems and processes. The focus is on the biological and physical aspects of structure and function of cells and their subsystems.

## GRADUATE COURSE CATALOG

### PHY 638 - Open Problems in Soft Interfaces

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Crosslisted with: BEN 638, BIO 638, CEN 638, CHE 638

In this seminar course on soft and biological materials and interfaces, teams from science and engineering will identify, discuss and assess current articles from the literature. Writing skills related to publishing peer-reviewed research are introduced.

### PHY 641 - Advanced Electromagnetic Theory I

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Review of Maxwell's equations, Relativity and Covariant electrodynamics, conservation laws, Green function approach. Radiation from point and extended sources. Radiation reaction.  
PREREQ: PHY 425 OR ELE 325

### PHY 642 - Advanced Electromagnetic Theory II

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Advanced topics illustrating electrodynamics of continuous media; plasmas; superconductivity and vacuum phenomena; particle optics; classical field theory, etc.  
PREREQ: PHY 641 AND MAT 511

### PHY 651 - Instrumentation in Modern Physics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Double Numbered with: PHY 351  
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 661 - Quantum Mechanics I

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Origins of quantum mechanics. Schrödinger and Heisenberg formulation. Problems in one, two, and three dimensions. Abstract formalism. Angular momentum and spin. Scattering theory. Symmetry properties. Perturbation methods. Identical particles. Applications to atomic and nuclear systems.

PREREQ: PHY 567

### PHY 662 - Quantum Mechanics II

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Origins of quantum mechanics. Schrödinger and Heisenberg formulation. Problems in one, two, and three dimensions. Abstract formalism. Angular momentum and spin. Scattering theory. Symmetry properties. Perturbation methods. Identical particles. Applications to atomic and nuclear systems.  
PREREQ: PHY 567 AND PHY 661

### PHY 663 - Problem Solving in Graduate Physics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Problem solving skills and topics not covered in courses the previous year.  
PREREQ: PHY 662

### PHY 676 - Condensed Matter Physics

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Dielectric, optical, and magnetic properties of matter. Magnetic and superconducting phases. Quantum transport and quantum Hall effect.  
PREREQ: (PHY 576 OR ELE 642) AND PHY 662

### PHY 690 - Independent Study

#### *College of Arts and Sciences*

1-6 credit(s) Every semester  
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.  
Repeatable

### PHY 731 - Thermodynamics and Statistical Mechanics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
First and second laws of thermodynamics, Boltzman's integrodifferential equation, Gibb's statistical mechanics, petit and grand ensembles, quantum statistics.  
PREREQ: PHY 531

### PHY 750 - Topics in Advanced Condensed Matter/Physics Theory

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Electron band theory. Electron-phonon interaction. Superconductivity. Impurities in crystals. Many-body Green's function. Disorder and localization. Amorphous materials.  
PREREQ: PHY 731  
Repeatable

### PHY 765 - Models of Condensed Matter

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Theoretical models for phases of condensed matter. Superconductivity, weak and strong disorder, magnetism, renormalization group theory of phase transitions. Many-body Green's functions and broken-symmetry concept.  
PREREQ: PHY 576 OR ELE 642

### PHY 771 - High Energy Particle Physics I

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Classification of subatomic particles. Passage of particles through matter. Production, selection, and detection of high-energy particles. Invariance principles and dynamic laws of strong, electromagnetic, and weak interactions: their experimental discovery and confirmation. Review of outstanding problems.  
PREREQ: PHY 662

### PHY 772 - High Energy Particle Physics II

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Classification of subatomic particles. Passage of particles through matter. Production, selection, and detection of high-energy particles. Invariance principles and dynamic laws of strong, electromagnetic, and weak interactions: their experimental discovery and confirmation. Review of outstanding problems.  
PREREQ: PHY 662

### PHY 775 - High Energy Particle Theory I

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Detailed treatment of modern unified weak-electromagnetic and strong theories of matter. Methods of treating the underlying gauge theories. Applications to elementary particle processes.  
PREREQ: PHY 763

### PHY 776 - High Energy Particle Theory II

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Detailed treatment of modern unified weak-electromagnetic and strong theories of matter. Methods of treating the underlying gauge theories. Applications to elementary particle processes.  
PREREQ: PHY 763

## GRADUATE COURSE CATALOG

### PHY 785 - Theory of Relativity I

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Special and general theory of relativity. First semester: technical introduction to established theory. Part of second semester: current research topics.  
PREREQ: PHY 621

### PHY 786 - Theory of Relativity II

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Special and general theory of relativity. First semester: technical introduction to established theory. Part of second semester: current research topics.  
PREREQ: PHY 621

### PHY 795 - Modern Cosmology

#### *College of Arts and Sciences*

3 credit(s) Upon sufficient interest  
Introduction to main ideas of modern cosmology. Expanding universe within general relativity; thermodynamics and cosmology; the cosmic microwave background; dark matter; dark energy and inflation; structure formation in the universe and connections between cosmology and particle physics.  
PREREQ: PHY 763 AND PHY 785

### PHY 831 - Statistical Mechanics of Fields and the Renormalization Group

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
A continuation of graduate statistical physics. Topics include: collective modes and quasiparticles, Ginzburg-Landau theory, modern theory of phase transitions, and the renormalization group.  
PREREQ: PHY 731

### PHY 880 - Selected Topics in Advanced Theoretical Physics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Topics vary over advanced field theory, gravitational physics, condensed matter theory, solitons, supersymmetry, cosmology, string theory, and others. With permission, may be taken more than once for credit.  
PREREQ: PHY 662  
Repeatable 1 time(s), 3 credits maximum

### PHY 885 - Quantum Field Theory I

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
Physical foundations of field quantization. Free fields. Fock space. Lagrangian and functional formulations. Interacting fields: quantum electrodynamics, weak and strong interactions.

Renormalization. Path integrals. Symmetry and invariance. Nonabelian gauges.

### PHY 886 - Quantum Field Theory II

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Physical foundations of field quantization. Free fields. Fock space. Lagrangian and functional formulations. Interacting fields: quantum electrodynamics, weak and strong interactions. Renormalization. Path integrals. Symmetry and invariance. Nonabelian gauges.

### PHY 890 - Minor Problems In Physics

#### *College of Arts and Sciences*

1-3 credit(s) Every semester  
Independent study and experimentation in some subject in physics.  
Repeatable

### PHY 990 - Independent Study

#### *College of Arts and Sciences*

1-6 credit(s) Every semester  
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.  
Repeatable

### PHY 997 - Masters Thesis

#### *College of Arts and Sciences*

1-6 credit(s) At least 1x fall or spring  
Repeatable

### PHY 999 - Dissertation

#### *College of Arts and Sciences*

0-15 credit(s) At least 1x fall or spring  
Repeatable

## Polish

### POL 620 - Language Training in Preparation for Research Using Polish

#### *College of Arts and Sciences*

3 credit(s) Every semester  
Language training to prepare students to conduct research in areas that require knowledge of Polish.  
Repeatable 3 time(s), 12 credits maximum

## Portuguese

### POR 620 - Language Training in Preparation for Research Using Portuguese

#### *College of Arts and Sciences*

3 credit(s) Every semester  
Language training to prepare students to conduct research in areas that require knowledge of

Portuguese.  
Repeatable 3 time(s), 12 credits maximum

## Persian

### PRS 620 - Language Training in Preparation for Research Using Persian

#### *College of Arts and Sciences*

3 credit(s) Every semester  
Language instruction to prepare students to conduct research in areas that require knowledge of Persian. Permission of instructor.  
Repeatable 3 time(s), 12 credits maximum

## Political Science

### PSC 500 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

## Psychology

### PSY 611 - Proseminar Methods and Topics in Cognitive Psychology

#### *College of Arts and Sciences*

3 credit(s) Only during the summer  
Discussion of methods, theories, and findings for student selected and faculty-selected topics in cognitive psychology.  
Repeatable 3 time(s), 12 credits maximum

### PSY 612 - Advanced Experimental Psychology

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
Current theories, topics, and methods in experimental psychology. Analysis and critique of research that uses experimental methods.  
Permission from Instructor.

### PSY 614 - Cognitive and affective bases of behavior

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
This course is intended to provide a scientific basis for students understanding of cognition and affect, and how both of these impact/relates to typical and atypical development through classic and contemporary readings.

### PSY 615 - Behavioral Pharmacology

#### *College of Arts and Sciences*

3 credit(s) Upon sufficient interest

## GRADUATE COURSE CATALOG

Behavioral effects of major psychoactive drugs. Basic concepts in pharmacology, behavioral techniques in drug research, the current status of minor and major tranquilizers, antidepressants, stimulants, hallucinogens, and drugs of abuse. Permission from Instructor.

### **PSY 617 - Individual differences and developmental disability**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8

This course is intended to provide a scientific basis for students understanding of individual differences and their stability over development with a special focus on developmental disability.

### **PSY 621 - Contemporary Behavioral Approaches in Health Psychology**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Theory and methods derived from advances in psychology. Biofeedback autogenic training, guided imagery, hypnosis, and multimodal psychophysiological techniques. Permission from Instructor.

### **PSY 622 - Cognitive Psychology: Memory and Attention**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8

Theory and experimentation in human cognition emphasizing how information processing models are constructed, tested, and modified. Permission from Instructor.

### **PSY 623 - Psychological Research of Family Systems**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8

General systems theory as related to psychological processes. Current research programs on psychopathology and family systems. Psychological and empirical focus; not a therapy course. Permission from Instructor.

### **PSY 624 - Research Methods in Clinical Psychology**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Application of experimental and correlational methods to clinical psychology. Experimental design. Regression techniques. Single-subject research. Writing and critiquing research in clinical psychology. Permission from Instructor.

### **PSY 626 - Cognitive Neurochemistry**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Double Numbered with: PSY 426

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.

### **PSY 631 - Alcohol Use and Abuse**

#### ***College of Arts and Sciences***

3 credit(s)

Double Numbered with: PSY 431

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.

### **PSY 640 - Psychology of Gender**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Crosslisted with: WGS 640

Research and literature related to sex differences. Process of socialization of girls and boys, women and men in American society. Permission of Instructor.

Repeatable

### **PSY 647 - Clinical Assessment I**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Experience in administration, interpretation, and report writing with individual intelligence tests, objective personality measures, and related clinical tools. Discussion of testing theory. Permission of Instructor.

### **PSY 648 - Assessment II**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Advanced assessment training in clinical and diagnostic interviewing, administering and interpreting psychological assessment instruments, providing consultation in response to a specific referral question, writing assessment reports, and providing feedback. PREREQ: PSY 647

### **PSY 649 - Ethical and Professional Issues in Clinical Psychology**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Professional, ethical, scientific, training, and practice issues in clinical psychology. Detailed coverage of some recent assessment, treatment, and conceptual issues. Permission of Instructor.

### **PSY 651 - Introduction to Statistical Methods**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Application of statistical methods. Exploratory data analysis and graphical display. Statistical indices, distributions, and data reexpression. Uses and limitations of correlation and regression. Foundations of statistical inference. Additional work required of graduate students. Permission of Instructor.

### **PSY 653 - Psychological Measurement**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest

Double Numbered with: PSY 353

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.

### **PSY 655 - Experimental Design and Statistical Methods I**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

Experimental research design. Distributions, graphs, exploratory data analysis, and descriptive statistics. Sampling and basic probability. Between-participants and within-participants designs. Inferential statistics: t-tests, one-way ANOVA, factorial ANOVA, and ANCOVA..

### **PSY 674 - Advanced Social Psychology**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Recurrent methodological problems in social psychology. Integration of experimental design, research findings, and theoretical formulations. Permission of Instructor.

### **PSY 675 - Social Influences on Human Sexual Behavior**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Double Numbered with: PSY 475

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.

### **PSY 676 - Group Processes**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

Research and theory. Social communication, group cohesiveness, social norms and roles, leadership, group productivity, and related topics. Permission of Instructor.

## GRADUATE COURSE CATALOG

### **PSY 677 - Social Cognition**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8  
Social inference, attribution theory, psychological control, social schemata, attention, person memory and social cognition biases. Permission of Instructor.

### **PSY 678 - Attitude Change**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5  
Research and theory concerning the formation and change of beliefs and attitudes. Factors that influence the effectiveness of persuasive communications, cognitive organization, the relation of belief to action, and related topics. Permission of Instructor.

### **PSY 679 - Research Methods in Social Psychology**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Methodology of research in social psychology. Experimental design, sampling procedures, observational methods, questionnaires and interviews, sociometric methods, attitude scaling, analysis and interpretation of data. Permission of Instructor.

### **PSY 680 - Seminar in Health Psychology**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Psychological factors as they interact with health and illness. Includes presentation on cardiovascular disorders, pain, diabetes, issues pertaining to health care, primary care psychology, spirituality and health, and prevention, among other selected topics. Permission of Instructor.

### **PSY 682 - Physiological Processes and Health Psychology**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Graduate level introduction to basic human physiology within the context of health psychology. Particular focus on multi-directional interactions between physiological processes, behavior, and psychological variables. Permission of Instructor.

### **PSY 691 - Meta-Analysis**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Statistical procedures, as well as practical issues involved in the conduct of meta-analyses. Permission of Instructor.  
PREREQ: PSY 655

### **PSY 693 - Advanced Personality**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Concepts and research in the development, motivation, and organization of personality. Recent empirical findings.

### **PSY 696 - Neuropsychology**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Theoretical, empirical, and clinical diagnosis, understanding, and treatment of individuals with neurological disturbance. In-depth study of human brain function and dysfunction. Implications for new theory, research, and treatment. Permission of Instructor.

### **PSY 730 - Seminar in Experimental Psychology**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5  
Discussion, readings, and projects in experimental psychology. Topics vary. Permission of Instructor. Repeatable 1 time(s), 6 credits maximum

### **PSY 734 - Developmental Psychology: Infancy and Childhood**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Infant and child behavior. Research methods and strategies, empirical relationships, theories of child development, and theories of behavior. Permission of Instructor.

### **PSY 736 - Developmental Psychology: The Adult Years and Aging**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8  
Developmental theory relating to the adult years and aging. Developmental trends in such areas as psychomotor function, performance, abilities motivation, personality. Permission of Instructor.

### **PSY 737 - Experimental Psychology: Cognition and Human Aging**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Basic and applied experimental psychological research in the area of cognition and human aging. Emphasizing aging and perception, attention, learning, memory, and intelligence. Permission of Instructor.

### **PSY 739 - Lifespan Developmental Psychology**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Permission of Instructor.

### **PSY 745 - Introduction to Psychotherapy**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Major approaches to adult psychotherapy and their relationship to personality development and change. Permission of Instructor.

### **PSY 746 - Survey to Psychotherapy Research**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest  
Seminar on research philosophies, experimental designs, methodological issues, and major findings in psychotherapy research. Permission of Instructor.

### **PSY 756 - Experimental Design and Statistical Methods II**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Correlational and survey research design. Reliability, bivariate correlation, partial and part correlation, bivariate regression, multiple regression, and logistic regression. Statistical mediation and moderation. Introduction to bootstrapping.  
PREREQ: PSY 655

### **PSY 757 - Multiple Correlation and Regression**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Regression versus correlation models. Interpreting regression coefficients, and multiple, partial, and semipartial correlation coefficients. Choosing and cross-validating models. Locating outlying and influential cases. Computer packages and extensive application to behavioral science data.  
PREREQ: PSY 756

### **PSY 761 - Introductory Seminar in School Psychology**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8  
Scientist-practitioner model: theory, research, legal and ethical issues in databased practice of school psychology. Roles, functions, and goals. Service-delivery approaches within educational and sociocultural contexts. Permission of Instructor.

### **PSY 762 - Cognitive Intellectual Assessment**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8  
Theory and research on intellectual change and standardization of intelligence tests. Experience in administering, scoring, and interpreting recent

## GRADUATE COURSE CATALOG

measures of intelligence and cognitive functioning in practicum component. Measurement, bias, legal and ethical issues in assessment component. Permission of Instructor.

### **PSY 763 - Direct Academic Assessment**

#### **College of Arts and Sciences**

3 credit(s) Even Academic Yr e.g. 2004-5  
Direct assessment of children's academic performance using curriculum-based measures and systematic observation. Research comparing direct assessment to norm-referenced testing and legal and ethical issues in using direct assessment for classification and intervention. Permission of Instructor.

### **PSY 764 - Socioemotional Assessment**

#### **College of Arts and Sciences**

3 credit(s) Even Academic Yr e.g. 2004-5  
Research on socioemotional assessment from multiple theoretical perspectives. Experience administering, scoring, and interpreting diverse measures of socioemotional functioning. Measurement, legal, and ethical issues in assessment for classification and intervention. Permission of Instructor.

### **PSY 765 - Principles of Behavior Modification**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8  
Experimental and theoretical advances in learning relevant to the management of clinical phenomena. Operant and classical conditioning, modeling, aversive controls, extinction, and issues in behavior therapy. Permission of Instructor.

### **PSY 775 - Seminar in Social Psychology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Discussion, readings, and projects in selected topics in social psychology. Permission of instructor.  
Repeatable 3 time(s), 12 credits maximum

### **PSY 777 - Advanced Cognitive Neuroscience**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Crosslisted with: NEU 777  
The science of how thought processes are instantiated in the brain including advanced techniques for behavioral and neural data and approaches for linking them together. Applications that demonstrate the brain-behavior relationship.

### **PSY 778 - Readings in Neuroscience**

#### **College of Arts and Sciences**

0-3 credit(s) Irregularly

Crosslisted with: BEN 613, BIO 624, CSD 753, NEU 613

A literature-based team-taught course focusing on in depth discussions of classical or recent papers of exceptional import to neuroscience. Students will complete weekly readings assigned by faculty and participate in a 3-hr/wk group facilitated discussion

### **PSY 779 - Interdisciplinary Methods of Neuroscience**

#### **College of Arts and Sciences**

0-3 credit(s) Irregularly  
Crosslisted with: BEN 614, BIO 625, CSD 754, NEU 614

A practical interdisciplinary survey course whereby neuroscience faculty introduce students to a wide array of methodologies, including molecular, cellular, developmental, systems, behavioral, and cognitive neuroscientific approaches to investigate basic, pre-clinical, translational, and clinical questions to unravel the relationship between brain and behavior.

### **PSY 780 - Introduction to Structural Equation Modeling**

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8  
Multivariate statistical model-building and applications of structural equation modeling techniques to date in the behavioral and psychological sciences. Path analysis, confirmatory factor analysis, and structural regression models.  
PREREQ: PSY 756

### **PSY 840 - Advanced Practicum in Clinical Health Psychology**

#### **College of Arts and Sciences**

3 credit(s) Every semester  
Health psychology field placement. Practicum experience in multidisciplinary settings. Interviewing, brief intervention, ethics, diversity, contemporary issues in the field. Permission of Instructor.

### **PSY 843 - Seminar in Psychopathology**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Discussion, readings, and projects on selected topics in psychopathology and related areas. Presupposes a knowledge of personality theory and abnormal psychology. Permission of Instructor.

### **PSY 847 - Practicum in Psychotherapy**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Theory, technique, and supervised experience in conducting psychotherapy. Supervision and

training of novice psychotherapists. Permission of Instructor.

### **PSY 849 - Advanced Practicum in Clinical Psychology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
For advanced students in psychological diagnosis and treatment. Supervised experience in counseling, play therapy, group therapy, and psychological diagnosis with children and adults. May be taken for a maximum of six credits. Repeatable 1 time(s), 6 credits maximum

### **PSY 851 - Clinical Therapy Experience Practicum**

#### **College of Arts and Sciences**

0 credit(s) Odd academic yr e.g. 2007-8  
Clinical psychology graduate students will conduct intake assessments, psychotherapy, and interventions as necessary with clients in the Psychological Services Center or other placement. They will receive supervision and develop their clinical intervention skills.

### **PSY 853 - Experimental Design and Statistical Tests**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring  
Experimental design and appropriate statistical tests. Use of the analysis of variance and covariance techniques.

### **PSY 854 - Statistical Analysis in Research Design**

#### **College of Arts and Sciences**

3 credit(s) Even Academic Yr e.g. 2004-5  
Applications of logic transformation to models for binary responses and design of observational studies. Issues of reliability, research design, and analysis.  
PREREQ: PSY 853

### **PSY 857 - Multivariate Analysis**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Statistical techniques dealing with situations involving many variables. Multivariate analysis of variance, discriminant analysis, canonical correlations, and classification procedures.

### **PSY 860 - Topics in Psychology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly  
Special topics of current interest. Topics vary from semester to semester. May be taken for credit three times. Permission of Instructor.  
Repeatable 2 time(s), 9 credits maximum

## GRADUATE COURSE CATALOG

### **PSY 861 - Consultation Processes**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5  
Research on consultation processes from diverse theoretical perspectives. Laboratory involving role playing and simulation of stages of consultation. Ethical and legal issues of indirect service delivery.

### **PSY 862 - Consultation Practicum**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5  
Supervised practical experience in consultation process: problem identification and analysis, treatment implementation, and process and outcome evaluation. Databased indirect service delivery consistent with ethical and legal guidelines.

### **PSY 863 - Developmental Psychopathology**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest  
Developmental perspective on problems of childhood adjustment from infancy to adolescence. Theoretical concepts of etiology, descriptive characteristics, differential diagnosis, and intervention approaches for each disorder. Permission of Instructor.

### **PSY 865 - Behavioral Assessment: Research and Theory**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Theoretical and empirical issues in assessing interaction between people and environments. Direct observation in naturalistic and analogous settings, interviews and other self-report measures, and psychophysiological measures. Permission of Instructor.

### **PSY 866 - Behavior Theory Practicum**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8  
Review of literature, research, and ethical/legal issues concerning the treatment of children's learning and adjustment problems using behavioral principles. Supervised experience in behavioral assessment, treatment implementation, and outcome evaluation.  
PREREQ: PSY 765 OR PSY 865

### **PSY 870 - Internship in School Psychology**

#### ***College of Arts and Sciences***

0-6 credit(s) At least 1x fall or spring  
Supervised internship in school and/or other child/youth agency. Permission of Instructor.  
Repeatable

### **PSY 880 - School Psychology Practicum**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Supervised experience in school settings, applying direct and indirect psychological services with outcome evaluation. Consideration of legal and ethical issues and broader community context for child-related services. Permission of Instructor.  
Repeatable

### **PSY 894 - History and Systems Psychology**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly  
Detailed treatment of principal forces that have played an important role in the evolution of modern psychology. Permission of Instructor.

### **PSY 895 - Theories of Health and Behavior**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Major theories of health and behavior, including issues in theory construction and model building are examined. Practical exercises teach theory integration in designing behavior change interventions in behavioral medicine, health promotion, and disease prevention. Permission of instructor is required.

### **PSY 896 - Neuropsychological Assessment**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8  
Neuropsychological assessment with administration of neuropsychological test batteries to adults and children with suspected neurological problems. Case analysis, interpretation, and report writing. Permission of Instructor.  
PREREQ: PSY 596

### **PSY 899 - Projects in Psychology**

#### ***College of Arts and Sciences***

3-6 credit(s) At least 1x fall or spring  
Permission of Instructor.

### **PSY 970 - Experience Credit**

#### ***College of Arts and Sciences***

1-6 credit(s) At least 1x fall or spring  
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 of Instructor.  
Repeatable

### **PSY 990 - Independent Study**

#### ***College of Arts and Sciences***

1-6 credit(s) At least 1x fall or spring  
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.  
Repeatable

### **PSY 996 - Internship in Clinical Psychology**

#### ***College of Arts and Sciences***

0-6 credit(s) Every semester  
Supervised internship at an accredited clinical psychology internship site.  
Repeatable

### **PSY 997 - Masters Thesis**

#### ***College of Arts and Sciences***

1-6 credit(s) Every semester  
Permission of Instructor.  
Repeatable

### **PSY 999 - Dissertation**

#### ***College of Arts and Sciences***

1-15 credit(s) Every semester  
Permission of Instructor.  
Repeatable

## **Queer Sexuality**

### **Q SX 746 - Queer Rhetorics**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: CCR 746, CRS 746, WGS 746  
Explores contemporary queer scholarship and activism from a rhetorical perspective. Analyzes purposes, arguments, tropes, figures, exigencies, modes of delivery, and audiences in historical and transnational contexts

## **Religion**

### **REL 500 - Selected Topics**

#### ***College of Arts and Sciences***

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **REL 551 - Ethics and the Health professions**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring  
Crosslisted with: PHI 593  
Ethical theories in professional, organizational, and political-economic fields in health care.



## GRADUATE COURSE CATALOG

Specific issues: assisted suicide, professional codes, ethics of “cost- cutting” and justice with respect to care.

### REL 552 - Bioethics

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

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

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

Introduction to major figures and movements in twentieth- century theology. Upper division standing.

### REL 595 - Religion, Art, and Aesthetics

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Intersection between religion, art, and philosophy. Sources culled from Western religious thought and philosophy.

### REL 600 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) At least 1x fall or spring

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### REL 601 - Theories and Methods in the Study of Religion

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Introduction to “classic” literature and issues in the field of religion.

### REL 602 - Gnosticism

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Gnosticism as a structure of religious belief; as sectarian movement within “mainline” traditions of late antiquity (Judaism, Christianity, paganism); as a literary-critical perspective on religious texts and traditions in antiquity and contemporary thinking.

### REL 603 - Theories and Methods in the Study of Religion II

#### *College of Arts and Sciences*

3 credit(s)

Introduction to “classic” twentieth-century literature and issues in the field of religion.

### REL 605 - Religion and the Body in Late Antiquity

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: WGS 605

History of the human body as history of its modes of construction in Graeco-Roman antiquity.

Problems that arise when the body becomes a topic for religious inquiry. Readings in ancient texts and contemporary theory.

### REL 607 - Ancient Religious Rhetoric

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Rhetoric of ancient Near Eastern and Mediterranean religious texts, including parts of the Bible; role of persuasion in ancient religion and its effects on literature, power, and on conceptions of knowledge and text in antiquity.

### REL 610 - Textual Practices in the Study of Religion

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

A theoretical and practical exploration of different textual practices and ways of approaching and interpreting them, focusing on an extended consideration of a single religious text or a single genre of religious texts.

Repeatable 2 time(s), 9 credits maximum

### REL 611 - The Idea of Scripture

#### *College of Arts and Sciences*

3 credit(s) Irregularly

The religious, literary, and political factors that affected the development and canonization of Jewish and Christian scriptures and shaped the idea of authoritative scripture in Western religious traditions.

### REL 619 - Ritual Theory and Religious Practice

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: ANT 619

Survey and evaluation of major ritual theories, tested against a particular set of religious and cultural practices, such as those involving purification and pollutions, or holidays and festivals.

### REL 620 - Textual Scripts in the Study of Religion

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

Theories and descriptions of how texts shape people’s words, actions and experiences, both religious and secular, and how people use and perform texts for spiritual and social effects

on religious objects, cultures, traditions and themselves.

Repeatable 1 time(s), 9 credits maximum

### REL 621 - Teaching World Religions in Theory and Practice

#### *College of Arts and Sciences*

3 credit(s) Irregularly

The complexities of teaching introductory courses in world religions, especially in the context of recent debates on comparison as well as the very concept of “religion.” Graduate standing.

### REL 622 - Sacrifice

#### *College of Arts and Sciences*

3 credit(s) Irregularly

An investigation of “sacrifice” as a name for ritual and non-ritual practices in contemporary and historical societies and in academic discourse about religions and cultures.

### REL 625 - Pluralism in Islam

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Historical development of multiple discourses within the Muslim world. Role of Islamic texts, institutions, and contexts on intra-Islamic politics of identity, representation, and religious authority. Hybridity and syncretism of Islams in contemporary local contexts.

### REL 626 - Beyond the Veil: Gender Politics in Islam

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Crosslisted with: MES 626

Double Numbered with: REL 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.

### REL 627 - Globalization and Religion: Processes and problems

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Sophisticated works in globalization theory emerge from sociology, economics, political history, and contemporary cultural studies with broad significance for the study of religion. Bringing these into conversation with religious studies is the project of this seminar. Graduate standing.

### REL 628 - Muslim Rituals, Practices, and Performances

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

## GRADUATE COURSE CATALOG

Crosslisted with: ANT 628

Historical, cultural, and sociological analysis of pan-Islamic festivals and rituals. Local, culturally-specific, unofficial practices in Islam.

### REL 629 - Islamic Metaphysics and Epistemology

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: PHI 629

In-depth study of the main epistemological systems and theories of metaphysics developed in Islamic intellectual tradition. Explores the systems of interpretation of the Qur'an and Sunnah developed by legal scholars, mystics and philosophers.

### REL 630 - Textual Bodies in the Study of Religion

#### *College of Arts and Sciences*

3 credit(s) Upon sufficient interest

An exploration of the intersections of texts and bodies within religious cultures texts as bodies (from literary corpus to material object), bodies as texts (inscribed and read), and above all bodies in texts.

Repeatable 2 time(s), 9 credits maximum

### REL 640 - The Philosophical Foundations of Religion

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Philosophic and religious heritage highlighted by Pythagoras, Socrates, Plato, Aristotle, Plotinus, Augustine, and Aquinas. Focus varies from year to year.

Repeatable

### REL 642 - Critical Issues in the Study of Native Americans

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: ANT 691

Methodological issues related to studies of indigenous traditions and develops interpretive strategies for using literature about Native American religions.

### REL 644 - Feminist Theology

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: WGS 644

Feminist theology as a global religious movement from its roots in U.S. feminism to its current political and philosophical battles.

### REL 650 - Themes in 19th Century Religious Thought

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Religious thought in 19th century Europe and America. Themes may include God, freedom, and selfhood; Romanticism and religion; and religion, freedom, and slavery. Figures examined may include Kierkegaard, Kant, Douglass, Emerson, and others.

Repeatable 1 time(s), 6 credits maximum

### REL 651 - Classics in the Sociology of Religion and Morals

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: ANT 651, SOC 651

Classical sociological writings of Emile Durkheim and Max Weber and their contemporary significance.

### REL 652 - Psychoanalysis and Religious Ethics

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Psychoanalysis and its implications for religious ethics.

### REL 653 - Postmodern Ethics

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Selected philosophical and religious perspectives on postmodern ethics. Readings from Rorty, Stout, Kristeva, Wyschogrod, MacIntyre, Nussbaum, and others.

### REL 654 - Religious Corporealities

#### *College of Arts and Sciences*

3 credit(s) Upon sufficient interest

Ways in which corporealities are shaped by and shape religious texts and traditions, philosophically and practically. Potential topics include nudity, body, flesh, skin, and sensuality, with attention to sexuality and biopolitics.

### REL 656 - Christianity and the Enlightenment

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Theological responses of representative thinkers to the challenges of the new science, natural religion, Deism, and the philosophies of the European Enlightenment.

### REL 658 - The Other in Ethics

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

The significance of the Other in contemporary religious and philosophical ethics. Readings in

Levinas, Lacan, Derrida, Kristeva, Critchley, Caputo.

### REL 659 - Kierkegaard Seminar

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

This seminar examines a wide array of themes and issues in Kierkegaard's religious thought which may include Kierkegaard and Romanticism; Kierkegaard on Love, God and Selfhood; Kierkegaard and Politics; Kierkegaard's Existential Aesthetics.

Repeatable 2 time(s), 9 credits maximum

### REL 660 - Continental Philosophy of Religion

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

Crosslisted with: PHI 640

Continental philosophers such as Husserl, Heidegger, Levinas, Derrida, Foucault, Deleuze, Irigaray, and Marion. Their influence on theology, religious theory. Topics include overcoming onto-theology; phenomenology, deconstruction and theology; return of religion.

Repeatable 1 time(s), 6 credits maximum

### REL 661 - Self, Body, Transcendence

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: WGS 661

Examines Continental and American feminist and gender theory for intersections between religion, subjectivity, and bodily practice.

### REL 662 - Marx and Foucault

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Texts from Marx and Foucault are read for their implications for Religion scholars.

### REL 663 - Religion and Revolution

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Texts from theology and political theory that examine their mutual terms, themes, and concerns.

### REL 665 - Religion and Mass Culture

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Twentieth-century theories of mass culture are read for their use and implications for religion scholars. [Effective spring 2009]

### REL 667 - Postmodern Theology

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

Philosophical background of postmodernism and its theological and cultural expressions. Content varies.

## GRADUATE COURSE CATALOG

Repeatable

### REL 668 - Critical Theory in Theology

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
Theories of discourse formation and textual production in theology in relationship to the critique of ideologies of theory.

### REL 671 - Religion and Post-Freudian Depth Psychologies

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5  
Contemporary psychoanalytic theories and their implications for interpreting religious phenomena: Melanie Klein, Jacques Lacan, D.W. Winnicott, Erick Erickson, Hans Leowald, Heinz Kohut, Christopher Bollas, and others.

### REL 676 - Religion and Jewish Literature

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Crosslisted with: JSP 676  
Readings in Jewish literature, with emphasis on allegorical, hasidic, neohasidic, and anti-hasidic writing by Nahman of Bratslav, Joseph Perl, I.L. Peretz, Franz Kafka, Isaac Babel, and S. Y. Agnon.

### REL 686 - Zen Master Dogen

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Selected writings of the thirteenth-century Japanese Zen master dogen Zenji. Related Mahayana Buddhist texts.

### REL 687 - Global Hinduism

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: REL 487  
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 689 - Memory, Culture, Religion

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Crosslisted with: ANT 689  
Collective memory and constructions of the past as cultural phenomena; the roles religious identities, values, and institutions play as individuals, communities, and nations recollect particular moments, eras, crises, and localities.

### REL 691 - Approaches to the Study of Religion

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Introduction to classic texts, methods and approaches used in the field of religion and in this department. Must be enrolled in the Religion Department M.A. or Ph.D. programs.

### REL 692 - Other People's Religions

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Explores the ways that Western studies of non-Western religions have dealt with difference. Central aim is to understand the politics of knowledge and the arts of interpretation involved in research and writing about other people's religious traditions.

### REL 693 - Materiality of Religion

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Methodological issues related to the interpretation of diverse religious phenomena including architecture, the body, and land.

### REL 696 - Gender and Religion: Theory and Practice

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Focus on the intertwining of gender and religion; emphasis on gendered visions of power in mythic, symbolic, and ritual phenomena. Readings in feminist and anthropological theory as well as cultural cases in ethnography and history of religions.

### REL 699 - Writing Religions and Cultures: Ethnographic Practice

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Crosslisted with: ANT 699  
A range of aims and strategies for writing ethnographies of religion in the multiple contexts of culture, history, and politics.

### REL 719 - Research and Writing in the History and Thought of the New Testament

#### *College of Arts and Sciences*

3-6 credit(s) Every semester

### REL 739 - Research and Writing in the History and Thought of Israel

#### *College of Arts and Sciences*

3-6 credit(s) Every semester

### REL 749 - Research and Writing in Religion and Society

#### *College of Arts and Sciences*

3-6 credit(s) Every semester  
Repeatable

### REL 759 - Research and Writing in Religious History and Thought

#### *College of Arts and Sciences*

3-6 credit(s) Every semester

### REL 769 - Research and Writing in Philosophy of Religion and Theology

#### *College of Arts and Sciences*

3-6 credit(s) Every semester  
Repeatable

### REL 779 - Research and Writing in Religion and Culture

#### *College of Arts and Sciences*

3-6 credit(s) Every semester

### REL 789 - Research and Writing in History of Religions

#### *College of Arts and Sciences*

3-6 credit(s) Every semester

### REL 799 - Research and Writing in Methodology

#### *College of Arts and Sciences*

3-6 credit(s) Every semester

### REL 997 - Master's Thesis

#### *College of Arts and Sciences*

1-6 credit(s) Every semester  
Repeatable

### REL 999 - Dissertation

#### *College of Arts and Sciences*

1-15 credit(s) Every semester  
Repeatable

## Russian

### RUS 620 - Language Training in Preparation for Research Using Russian

#### *College of Arts and Sciences*

3 credit(s) Every semester  
Language training to prepare students to conduct research in areas that require knowledge of Russian.  
Repeatable 3 time(s), 12 credits maximum

## Science Teaching

## GRADUATE COURSE CATALOG

### SCI 544 - Teaching of College Science

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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.

### SCI 670 - Experience Credit

#### *College of Arts and Sciences*

1-6 credit(s)  
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.  
Repeatable

### SCI 701 - General Science Comprehensive Paper

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
Comprehensive science paper required for the M.S. degree in general science. Topic selected by student and advisor. Given in cooperation with the various science departments.

### SCI 990 - Independent Study

#### *College of Arts and Sciences*

1-6 credit(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.  
Repeatable

## Sociology

### SOC 500 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) Upon sufficient interest  
In-depth selected study of certain social problems.  
Repeatable

### SOC 513 - Statistics for Social Science

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring  
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

#### *College of Arts and Sciences*

3 credit(s) Upon sufficient interest  
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. Repeatable 1 time(s), 6 credits maximum

## Social Science

### SOS 575 - Philosophy of Social Science

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8  
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 601 - Literary Theory and Research Methods

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Reading in semiotics and research theory concerning literary texts.

### SPA 620 - Language Training in Preparation for Research Using Spanish

#### *College of Arts and Sciences*

3 credit(s)  
Language training to prepare students to conduct research in areas that require knowledge of Spanish.  
Repeatable 3 time(s), 12 credits maximum

### SPA 635 - Spanish Phonetics and Phonology

#### *College of Arts and Sciences*

3 credit(s)  
Double Numbered with: SPA 435  
Introduction to formal linguistic analysis of the Spanish sound system. Survey of dialectal variation. Additional work required of graduate students.

### SPA 636 - The Structure of Spanish

#### *College of Arts and Sciences*

3 credit(s)  
Double Numbered with: SPA 436  
Introduction to the formal linguistic analysis of the structure of Spanish sentences. Additional work

required of graduate students.

### SPA 637 - Introduction to Spanish Linguistics

#### *College of Arts and Sciences*

3 credit(s)  
Double Numbered with: SPA 437  
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.

### SPA 638 - History of the Spanish Language

#### *College of Arts and Sciences*

3 credit(s)  
Double Numbered with: SPA 438  
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 639 - Community Outreach: Language in Action

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Double Numbered 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.

### SPA 641 - Medieval and Golden Age Literature

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Critical reading of significant literary works drawn from the Middle Ages and the 16th and 17th centuries.

### SPA 643 - Cervantes

#### *College of Arts and Sciences*

3 credit(s) Irregularly  
Don Quixote, with selections from other representative works by Cervantes.

### SPA 652 - Spanish Enlightenment to Modernism: Aesthetics and Power

#### *College of Arts and Sciences*

3 credit(s)  
Through a diverse theoretical approach, analyzes the construction of the following notions: literature, nation, identity, and gender. Representations of women in literary and cinematic texts.

## GRADUATE COURSE CATALOG

### **SPA 653 - Sinner and Saints in 19th and 20th Century Spanish Literature and Film**

#### ***College of Arts and Sciences***

3 credit(s)

Crosslisted with: WGS 653

Representations of women in novel, poetry, theater, and film through diverse theoretical approaches. Issues of power, sex, hierarchy, and institution.

### **SPA 655 - Caribbean Spaces**

#### ***College of Arts and Sciences***

3 credit(s) Odd academic yr e.g. 2007-8

This course explores visions of urban imaginaries in Caribbean and U.S. Caribbean cultures. It analyzes the intersections between urban spaces and the formation of local/global subjectivities.

### **SPA 656 - Reality and Desire: Theater and Poetry (20th Century)**

#### ***College of Arts and Sciences***

3 credit(s)

A diachronic study of the Spanish theater and poetry. Literary works will include texts by Valle-Inclán, Machado, Garcia Lorca, Aleixandre, Cernuda, Sastre, Buero Vallejo, among others.

### **SPA 658 - Narrative and Film in Spain (1940 to the Present)**

#### ***College of Arts and Sciences***

3 credit(s)

Diachronic study of the "art of adaptation" in Spain. Exploration of the language of translation. Exchange between literature and film during and after Franco.

### **SPA 662 - Latin American Colonial Literature**

#### ***College of Arts and Sciences***

3 credit(s)

Literature written during the Colonial period and contemporary criticism and theory about that period.

### **SPA 663 - Latin American Theater**

#### ***College of Arts and Sciences***

3 credit(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

### **SPA 664 - Nineteenth Century Latin American Literature**

#### ***College of Arts and Sciences***

3 credit(s)

Narratives and poetry written during the 19th century in Latin America. Analyzed in relation to literary movements such as costumbrism, romanticism, realism, naturalism, and the gaucho trend.

### **SPA 665 - Performance and Postmodernism in Latin America**

#### ***College of Arts and Sciences***

3 credit(s)

Latin American theater written or performed from 1990 to the present alongside theories on performance and postmodernism related to Latin America and its theater.

### **SPA 671 - Latin American Literature and Feminist Theory**

#### ***College of Arts and Sciences***

3 credit(s)

Crosslisted with: WGS 671

Includes reading and critical discussion of novels by 20th-century Latin American women writers and an introduction to feminist theory as it pertains to Latin America.

### **SPA 672 - Gay and Lesbian Hispanic Caribbean Literature**

#### ***College of Arts and Sciences***

3 credit(s)

Caribbean poetry and fiction in homosexual literature. Includes literary theories and social, political, cultural, and religious values related to homosexuality.

### **SPA 673 - Afro-Hispanic Literature of the Caribbean**

#### ***College of Arts and Sciences***

3 credit(s)

Evolution of the African culture within the Cuban Literature of the 20th century. The relationship of Santería/Revolution is especially emphasized.

### **SPA 674 - Cuban Neo-Baroque**

#### ***College of Arts and Sciences***

3 credit(s)

Analysis of three contemporary Cuban writers: Alejo Carpentier, José Lezama Lima, and Severo Sarduy. Literary theories of novel, poetry, and lectures.

### **SPA 678 - Latin American Literature in the New Millennium**

#### ***College of Arts and Sciences***

3 credit(s) Upon sufficient interest

This course will trace the major developments in

Latin American literature and cultural phenomena that followed the Boom, with emphasis on the production of the 21st century.

### **SPA 679 - The Literature of Postmodernism in Latin America**

#### ***College of Arts and Sciences***

3 credit(s)

Contemporary trends in Latin-American literature.

### **SPA 681 - U.S. Latina/o Literature**

#### ***College of Arts and Sciences***

3 credit(s)

Literary texts written by Latina/os in Spanish from the 17th century to the present. Focus from late 19th century to the present; examining socio-historic, cultural and literary contexts.

### **SPA 685 - Contemporary Spanish-American Literature**

#### ***College of Arts and Sciences***

3 credit(s) Irregularly

Precursors, modernists, and postmodernists

### **SPA 686 - Thinking/Writing the Nation**

#### ***College of Arts and Sciences***

3 credit(s) At least 1x fall or spring

An introduction to texts within the variety of discursive modernity models of 19th century Latin America. From Independence Era to the end of that century.

### **SPA 687 - Revisiting Foundational Fictions**

#### ***College of Arts and Sciences***

3 credit(s) Even Academic Yr e.g. 2004-5

A discussion of Anderson's Imagined Communities and Sommer's Foundational Fictions, to determine how helpful they are today in the study and mapping of 19th century Latin American narrative texts.

### **SPA 690 - Independent Study**

#### ***College of Arts and Sciences***

1-6 credit(s) Every semester

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. Repeatable

## **Applied Statistics**

### **STT 690 - Independent Study**

#### ***College of Arts and Sciences***

1-6 credit(s)

Exploration of a problem, or problems, in depth. Individual independent study upon a plan

## GRADUATE COURSE CATALOG

submitted by the student. Admission by consent of supervising instructor(s) and the department. Repeatable

### STT 750 - Statistical Consulting

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: MAT 750

Experience in working with real data taken from current projects in the statistical laboratory and from published papers.

Repeatable

### Kiswahili

### SWA 620 - Language Training in Preparation for Research Using Kiswahili

#### *College of Arts and Sciences*

3 credit(s) Every semester

Language instruction to prepare students to conduct research in areas that require knowledge of Kiswahili. Permission of instructor.

Repeatable 3 time(s), 12 credits maximum

### Tamil

### TML 620 - Language Training in Preparation for Research Using Tamil

#### *College of Arts and Sciences*

3 credit(s) Every semester

Crosslisted with: SAS 620

Language training to prepare students to conduct research in areas that require knowledge of Tamil.

Repeatable 3 time(s), 12 credits maximum

### Turkish

### TRK 620 - Language Training in Preparation for Research Using Turkish

#### *College of Arts and Sciences*

3 credit(s) Every semester

Language training to prepare students to conduct research in areas that require knowledge of Turkish.

Repeatable 3 time(s), 12 credits maximum

### Women's and Gender Studies

#### WGS 500 - Selected Topics

##### *College of Arts and Sciences*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### WGS 512 - African American Women's History

#### *College of Arts and Sciences*

3 credit(s) Odd academic yr e.g. 2007-8

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

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

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

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

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

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

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

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

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

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Crosslisted with: GEO 576

Contemporary debates in feminist geography

on the gendered construction of space and the spatial construction of gender.

### WGS 600 - Selected Topics

#### *College of Arts and Sciences*

1-6 credit(s) At least 1x fall or spring

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### WGS 601 - Feminist Theories

#### *College of Arts and Sciences*

3 credit(s) At least 1x fall or spring

Examines the conceptual underpinnings of multiple and interrelated forms of inequality; critiques existing theoretical paradigms of sex/gender; explores the politics of power, knowledge, and subjectivity; and fosters intersectional, transnational, and decolonial feminist thinking.

### WGS 605 - Religion and the Body in Late Antiquity

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: REL 605

History of the human body as history of its modes of construction in Graeco-Roman antiquity. Problems that arise when the body becomes a topic for religious inquiry. Readings in ancient texts and contemporary theory.

### WGS 612 - French Women Writers

#### *College of Arts and Sciences*

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: FRE 612

Double Numbered with: WGS 412

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 614 - Introduction to Qualitative Research

#### *College of Arts and Sciences*

3 credit(s) Every semester

Crosslisted with: EDU 603, SOC 614

Developing and using qualitative methods used by sociologists to conduct research. Underlying assumptions and limitations.

### WGS 615 - Communication, Power & Gender

#### *College of Arts and Sciences*

3 credit(s) Irregularly

Crosslisted with: CRS 614

Consideration of the ways in which communication structures power and gender relations. Reviewing Continental and North American literature on power, and feminist literature on gender, students

## GRADUATE COURSE CATALOG

study how communication produces social identities and hierarchies.

### **WGS 625 - Feminist Organizations**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: SOC 625

Double Numbered with: WGS 425

Analyzes feminist organizing/activist work within and beyond the U.S. Interrogates what counts as feminist organizing and how different organizations use feminist principles in work for social change. Additional work required of graduate students.

### **WGS 626 - Persons in Social Context**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: SWK 626

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 627 - New York City: Black Women Domestic Workers**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: AAS 627, SOC 627

Double Numbered with: WGS 427

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 628 - Human Diversity in Social Contexts**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: SWK 628

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 635 - Readings in Feminist Psychological Theories**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Crosslisted with: SWK 635

Feminist psychological theories will be identified and analyzed. The intersection of feminist theory and traditional psychological theory, with particular critique to mental health interventions and programs will be examined.

### **WGS 636 - Feminist Rhetoric(s)**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: CCR 636, CRS 636

Double Numbered with: 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.

### **WGS 640 - Psychology of Gender**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Crosslisted with: PSY 640

Research and literature related to sex differences. Process of socialization of girls and boys, women and men in American society. Permission of Instructor. Repeatable

### **WGS 644 - Feminist Theology**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: REL 644

Feminist theology as a global religious movement from its roots in U.S. feminism to its current political and philosophical battles.

### **WGS 645 - The Caribbean: Sex Workers, Transnational Capital, and Tourism**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: AAS 645, SOC 645

Double Numbered with: WGS 445

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 649 - Seminar on Women in Art**

#### **College of Arts and Sciences**

3-4 credit(s) Irregularly

Crosslisted with: HOA 640

Women artists and images of women in the works of their contemporaries. Students conduct original research, relating topic to their specific areas of interest (interdisciplinary studies).

### **WGS 652 - Feminism and Postcolonial Studies**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Double Numbered with: WGS 452

Critical exploration of the relationship between women, gender, and violence within transnational feminist frameworks. This course also examines

women's experiences of, participation in, and resistance to different forms of violence. Additional work required of graduate students.

### **WGS 653 - Sinner and Saints in 19th and 20th Century Spanish Literature and Film**

#### **College of Arts and Sciences**

3 credit(s)

Crosslisted with: SPA 653

Representations of women in novel, poetry, theater, and film through diverse theoretical approaches. Issues of power, sex, hierarchy, and institution.

### **WGS 655 - Culture and AIDS**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: ANT 655

Double Numbered with: WGS 455

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 661 - Self, Body, Transcendence**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: REL 661

Examines Continental and American feminist and gender theory for intersections between religion, subjectivity, and bodily practice.

### **WGS 662 - Youth, Schooling and Popular Culture**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: CFE 662

Double Numbered with: 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.

### **WGS 664 - Aging and Society**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: SOC 664

Double Numbered with: WGS 364

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.

## GRADUATE COURSE CATALOG

### **WGS 671 - Latin American Literature and Feminist Theory**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: SPA 671

Includes reading and critical discussion of novels by 20th-century Latin American women writers and an introduction to feminist theory as it pertains to Latin America.

### **WGS 672 - Language, Culture, and Society**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: ANT 672, LIN 672

Double Numbered with: WGS 472

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 673 - Women, Rap and Hip-Hop Feminism**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered 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.

### **WGS 690 - Independent Study**

#### **College of Arts and Sciences**

1-6 credit(s) Every semester

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. Repeatable

### **WGS 700 - Selected Topics**

#### **College of Arts and Sciences**

1-6 credit(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. Repeatable

### **WGS 701 - Intersectionality**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Introduces intersectionality as an analytic. Offers an overview of intersectionality applications in theory, methods, and politics. Focuses on contemporary and historical intersectionality literatures, particularly in Black feminist and women of color theorizing.

### **WGS 705 - Negotiating Difference: Coming of Age Narratives**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Using a range of genres, explores influence of place, family, and social expectations on self-definition; examines politics of everyday life, including untellable silences and violence; considers how authors craft to resist marginalization.

### **WGS 710 - Feminist Inquiries**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Focus on developing and applying interdisciplinary feminist methods. Raises issues of bridging research/theory/practice. Engages intersectional, transnational, and decolonial frameworks.

Examines feminist approaches to and critiques of ontological, epistemological and methodological assumptions in research.

### **WGS 725 - Gender and Race in Higher Education**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: CFE 725, HED 725

Examines the influence of gender and race in historical and contemporary higher education from interdisciplinary perspective; considers dynamics of power, privilege, and oppression; includes topics related to student and faculty experiences, and curricular issues.

### **WGS 740 - Feminist Theories of Knowing**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Engages interdisciplinary, intersectional, and decolonial knowledge models. Examines feminist theoretical debates about: knowledge/power nexus; epistemic salience of location, identity, and difference; contesting dominant or hegemonic imaginaries; and subjugated knowledges and marginalized knowers.

### **WGS 746 - Queer Rhetorics**

#### **College of Arts and Sciences**

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: CCR 746, CRS 746, QSX 746

Explores contemporary queer scholarship and activism from a rhetorical perspective. Analyzes purposes, arguments, tropes, figures, exigencies, modes of delivery, and audiences in historical and transnational contexts

### **WGS 757 - Black Feminist Theories**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: AAS 757

Explores historical backgrounds and contemporary expressions of Black feminist thought around the globe to broaden our knowledge of feminist theory. We take an interdisciplinary approach to Black feminist theory that crosses genres and disciplines.

### **WGS 764 - Gender and Globalization**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: ANT 764, GEO 764

The impact of the increasing hypermobility of capital and culture flows across borders on gender relations.

### **WGS 776 - Gender, Education & Culture**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Crosslisted with: CFE 776, DSP 776

How gender is culturally constructed in American society with particular reference to education broadly conceived; how race and social class influence gender analysis.

### **WGS 795 - Practice of Transnational Feminism**

#### **College of Arts and Sciences**

3 credit(s) Irregularly

Advanced seminar on core theoretical, methodological, and ethical issues in transnational feminist praxis. Focus on feminist anti-capitalist critique, counterhegemonic struggles, and emancipatory knowledge production. Working space for ongoing student research and pedagogy.

### **WGS 812 - Advanced Seminar in Qualitative Research I**

#### **College of Arts and Sciences**

3 credit(s) At least 1x fall or spring

Crosslisted with: EDU 810, SOC 811

Expand fieldwork skills and increase theoretical understanding: emphasis on "thinking qualitatively;" intensive fieldwork.

### **WGS 821 - Feminist Methodologies**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Crosslisted with: SOC 821

The feminist critique and its implications for planning, conducting, and reporting on empirical studies.

### **WGS 833 - Race, Class and Gender**

#### **College of Arts and Sciences**

3 credit(s) Upon sufficient interest

Crosslisted with: SOC 833

Intersecting dimensions of inequality that structure social life in contemporary societies.



## GRADUATE COURSE CATALOG

Multiple effects of cross cutting oppressions and privileges, including sexuality and ability/disability.

### WGS 876 - Feminist Geography

#### **College of Arts and Sciences**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: GEO 876

The relationships between gender, space, and place. Topics include the gendered spaces of everyday life, identity and spatial metaphor, geographies of the body and the border, human migration, gender and the city.

### Writing Program

#### **WRT 617 - Technical Documentation & Usability**

##### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered with: WRT 417

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.

#### **WRT 619 - Advanced Technical Writing Workshop**

##### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered with: WRT 419

Intensive experience in writing technical texts. Additional work required of graduate students.

#### **WRT 627 - Emerging Technologies in Professional & Technical Writing**

##### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered with: WRT 427

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.

#### **WRT 637 - Rhetoric and Information Design**

##### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered with: WRT 437

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.

#### **WRT 647 - Professional & Technical Writing in Global Contexts**

##### **College of Arts and Sciences**

3 credit(s) Irregularly

Double Numbered with: WRT 447

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.

#### **WRT 670 - Practicum: Teaching College Writing**

##### **College of Arts and Sciences**

0-3 credit(s) At least 1x fall or spring

Presentation and discussion of classroom, conference, and paper grading techniques.

Planning and evaluating the student's own teaching.

Repeatable

### College of Arts and Sciences Faculty

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; Lawpsychology, 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 Babiacki, 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, Michael G. and Susan T. Thonis Professor of Earth Sciences  
Ph.D., State University of New York at Albany, 1988  
Mineralogy, petrology, thermochronology, 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, English  
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, English  
Ph.D., University of Virginia, 2001  
Nineteenth-century American literature and

## GRADUATE COURSE CATALOG

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, 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

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

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, English

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, William Safire Professor of

Modern Letters, English

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 postcolonial discourse; Third World feminisms

Carlos Castañeda, Assistant Professor

Ph.D., Johns Hopkins University, 2009

Biophysics, biophysical chemistry, protein structure, dynamics and function, posttranslational modifications, chemical biology, structural biology, nuclear magnetic resonance of proteins and protein complexes, neuroscience

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, Associate 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;

## GRADUATE COURSE CATALOG

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, Associate Professor  
Ph.D., SUNY Buffalo, 2008  
Organic and organometallic chemistry; catalytic  
reaction development; natural product synthesis

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

Sally Cornelison  
Ph.D., Courtauld Institute of Art, University of  
London, 1998  
Italian Renaissance Art

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

Jonathan Dee, Assistant Professor, English  
B.A., Yale, 1984  
Creative writing, fiction

Jeanne Denti, Visiting Assistant Professor of  
Psychology  
Ph.D., Syracuse University, 1989  
Eating disorders, abnormal and clinical  
psychology.

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, Associate 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, English  
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

Ji Ji 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,  
Associate Dean of Science Mathematics and  
Research  
Ph.D., University of Melbourne (Australia), 1988  
Tectonics, Low temperature thermochronology

## GRADUATE COURSE CATALOG

(fission track, U-T h/He)

Arthur Flowers, Associate Professor, English  
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, English  
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

Casarae Gibson, Assistant Professor of African American Literature  
Ph.D., Purdue University, 2015  
African American Protest Movements and Civil Unrest between 1964-1992, The Black Arts Movement, themes of resistance in Black women's writing in Jamaica and Salvador de Bahia, Brazil, and Hip Hop Studies

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, English  
Ph.D., University of Chicago, 2001  
British Romantic and early Victorian literature and culture, gender studies

Jerry Goodisman, Professor Emeritus  
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, Associate 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, English  
Ph.D., New York University, 2002  
Film, documentary, visual culture, LGBT studies

M. Gail Hamner, Professor  
Ph.D., Duke University, 1997  
Pragmatism, critical theory, women's studies, film, and popular culture

Chris Hanson, Assistant Professor, English  
Ph.D., University of Southern California, 2010  
Screen studies: new media, television, film, and game studies

John F. Harkulich, Adjunct Assistant Professor  
Ph.D., Florida State University, 1979

Brooks Haxton, Professor, English  
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 Emeritus  
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

## GRADUATE COURSE CATALOG

- 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, Associate 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 L. Houglund, 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
- 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
- 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, stable isotope paleobiology
- 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
- Jean Jonassaint, 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, paleoceanography, geobiology, and stable isotope and organic geochemistry
- 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  
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
- Christa A. Kelleher, Assistant Professor  
Ph.D., The Pennsylvania State University, 2013  
Hydrology/Hydrogeology
- Christopher Kennedy, Associate Professor, English  
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, English  
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

## GRADUATE COURSE CATALOG

- 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, nanometerscale 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, English  
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, Associate 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 Merdith 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, Professor  
Ph.D., University of Massachusetts-Amherst, 2004  
Metaphysics, philosophy of religion, ethics
- Moira 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,

## GRADUATE COURSE CATALOG

- 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, 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
- Kevin Morrison, Assistant Professor, English  
Ph.D., Rice University, 2009  
Victorian literature and culture
- Donald E. Morton, Professor, English  
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, Writing Program  
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
- Aesoon Park, Associate 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
- Louise Wetherbee Phelps, Professor Emeritus  
Ph.D., Case Western Reserve University, 1980  
Rhetoric & composition/writing studies, including theory, method, and disciplinary histories; writing program design and administration; and graduate curriculum and pedagogy.
- 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
- Jonathan Preston, Assistant Professor  
Ph.D., Syracuse University, 2008  
speech sound disorders, persistent articulation difficulties, childhood apraxia of speech
- 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
- 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, Associate Professor  
Ph.D., University of Toronto, 2008  
Medieval philosophy, early modern philosophy
- Brian Rieger, Adjunct Assistant Professor  
Ph.D., Fordham University, 1996
- Michael Rieppel

## GRADUATE COURSE CATALOG

- Ph.D., University of California, Berkeley, 2013  
Philosophy of language, philosophical logic, and metaphysics. Properties and predication, predicative quantification, referential expressions, and attitude reports. The intersection of philosophy of language and philosophy of mind, and in the history of early analytic philosophy.
- Ellyn Riley, Assistant Professor  
Ph.D., Northwestern University, 2011  
Adult acquired neurogenic disorders, particularly aphasia, acquired alexia, and patient-related factors affecting treatment outcomes.
- 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, Associate Professor, English  
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, 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 erogens
- Jurepan 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, English  
M.F.A., Syracuse University, 1988  
Creative writing, fiction
- Douglas J. Scaturo, Adjunct Associate Professor  
Ph.D., Claremont Graduate School, 1979
- Joseph Schechter, Professor  
Ph.D., University of Rochester, 1965  
Elementary particle theory
- Will Scheibel, Assistant Professor, English  
Ph.D., Indiana University, 2014  
Film and media studies
- 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, 2002  
Composition Theory, Political Economics of Writing, Writing Assessment, Writing Program Administration
- Kari A. Segraves, Associate Professor  
Ph.D., Vanderbilt University, 2003  
Plant-insect interactions, mutualism, coevolution, and phylogenetics
- Nathaniel Sharadin  
Ph.D., University of North Carolina at Chapel Hill, 2014  
Ethics, epistemology, social and political philosophy, and aesthetics
- Lixin Shen, Professor  
Ph.D., Zhongshan University, 1996  
Wavelets and image processing
- Stephanie Shirilan, Assistant Professor, English  
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, Jazz guitarist, chef and raconteur
- 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, English  
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



## GRADUATE COURSE CATALOG

- Ph.D. University of Michigan, 2006  
Elementary particles, experiment
- 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, English  
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, Dean's Professor for the Public Humanities in English  
Ph.D., University of Chicago, 1986  
Twentieth-century American literature and culture, Marxist theory, American studies
- Jay B. Thomas, Assistant Professor  
Ph.D., Virginia Tech, 2003  
Petrology and geochemistry, experimental studies of mineral and rock formation
- Laurence Thomas, Professor, Philosophy and Political Science  
Ph.D., University of Pittsburgh, 1976
- Ethical theory, social philosophy, the Holocaust
- Maria Emma Ticio Quesada, Associate 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, English  
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
- Victoria Tumanova, Assistant Professor  
Ph.D. University of Iowa, 2010  
Fluency, stuttering in young children
- 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, Berkeley, 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
- Mathieu 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. Venable, 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

## GRADUATE COURSE CATALOG

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

Weiwei Zheng  
Ph.d., Florida State University, 2011  
Inorganic chemistry, materials science, nanotechnology, assembly, green energy harvesting

Jon Zubieta, Distinguished Professor  
Ph.D., Columbia University, 1971  
Inorganic chemistry, coordination complexes, polyoxometalates, microporous materials, technetium-based radiopharmaceuticals

# School of Education

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.

## Accreditation

The Syracuse University Unit for Preparing School Professionals (Unit) is accredited by the National Council for Accreditation of Teacher Education (NCATE). The Unit spans five colleges (College of Arts & Sciences, College of Visual and Performing Arts, School of Education, David B. Falk College of Sport and Human Dynamics, and the School of Information Studies) and includes twenty four (24) program areas. The Unit will host its next accreditation visitor in spring 2018.

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/>

## Graduate Education

### Degree Requirements

Each graduate degree offered by the school represents a different level of achievement.

The Master of Science (M.S.), or Master of Art (M.A.), is the first degree beyond the bachelor's degree. Each M.S. and M.A. program is designed to develop in-depth knowledge of a particular field of professional education.

The Certificate of Advanced Study (C.A.S.) offers greater scope, depth, and thoroughness of preparation than the M.S. or the M.A.

A doctoral degree is considered the highest level of academic achievement. The Ph.D. is an academic degree. The Ed.D. is a professional degree. Students with an interest in research or in university teaching usually pursue the Ph.D. Their programs emphasize intensive study in a major area of specialization and often a minor area as well, leading to the development or extension of theory and research in the major field. Many Ed.D. candidates seek positions as administrators, supervisors, consultants, college professors, and as non-teaching education specialists.

General information about degree requirements is listed below. For details on degree requirements, see information provided by the Office of Academic and Student Services, 111 Waverly Avenue, Suite 230, 315-443-9319. Information on specific requirements is available from the office of the chair or coordinator of each program of study.

### Master's Degree

The School of Education offers the M.S. in more than 30 areas, the M.Mus. in music education and the M.A. in media and education. Selected areas of study lead to public school teacher certification; others prepare students for roles in various educational and non-educational settings. Many master degree programs are available to applicants with no previous study in that field.

Preparation programs meet the academic requirements for those with a bachelor's degree in a field other than education who pursue their first certificate for public school service in a specific area. Preparation programs also serve those who are certified in one area but seek certification in a new area.

Master's professional certification programs are designed for those who are already certified in a subject area but want a master's degree in that same area to meet academic requirements for the next level of certification.

## GRADUATE COURSE CATALOG

A select number of master's programs prepare students for roles not requiring certification, while others lead to doctoral candidacy. For a complete listing, see "Programs Offered and Degrees Conferred."

All master's degree programs require a minimum of 30 credits; some require more. Some programs allow students to elect one or more courses offered by other academic units of Syracuse University, such as the Maxwell School of Citizenship and Public Administration or the Colleges of Arts and Sciences, Visual and Performing Arts, The David B. Falk College of Sport and Human Dynamics. No more than 9 credits (6 credit limit for Higher Education) taken outside of Syracuse University may be transferred into a 30-credit master's degree program.

All master's programs require one of the following: a thesis, a portfolio review, or an intensive examination. Graduate students must maintain a GPA of 3.0 to graduate.

### Certificate of Advanced Study (C.A.S.)

The C.A.S. program is a step beyond the master's level, but is distinct from doctoral study. The certificate is not an intermediate step to a doctoral degree but is considered a terminal degree providing the specialization necessary for a variety of positions. The C.A.S. programs in Educational Leadership and Counselor Education may also meet the academic requirements for New York State certification in those areas.

### C.A.S. Requirements

Generally, the C.A.S. includes 60 credits with at least half at Syracuse University, an overall B average, a qualifying examination, an appropriate field project/activity, an extended internship, and at least 30 credits in the field and 9-21 credits outside the field of study.

In addition to the traditional C.A.S. offered by the School of Education, both the School's Department of Cultural Foundations of Education (CFE) and its Instructional Design, Development and Evaluation Department (IDD&E) offer non-traditional Certificates of Advanced Study:

CFE offers a Certificate of Advanced Study in Disability Studies. This is a 15 credit program, with the additional requirement of an oral or written examination at the completion of the coursework. The C.A.S. in Disability Studies is available to students enrolled in any Syracuse University graduate program as well as to applicants who wish to pursue the C.A.S. as a single course of study. This Department also offers a 15 credit C.A.S. in media & education. This C.A.S. is designed to be completed in one year of part-time study. The program is capped on each end with a

full-time, on-campus residency (first weeks of July, then last weeks of the following June). Fall and Spring courses are completed online.

IDD&E offers three Certificate of Advanced Study programs in Educational Technology (15 credits), Professional Practice in Educational Technology (24 credits) and Instructional Design Foundations (12 credits). These programs are designed for students who require additional knowledge and expertise in order to advance in their professional careers.

### Doctoral Degree

Candidates must first decide whether to pursue the Ed.D. or the Ph.D. Before applying for the doctoral degree, the candidate should correspond with the program coordinator of the specific program of interest and, if possible, arrange for a personal interview.

Programs for both the Ph.D. and the Ed.D. degrees require a minimum of 90 graduate credits beyond the bachelor's degree, usually distributed among core requirements, major area requirements, supporting minor areas, research tools, and dissertation credits. One-half of pre-dissertation course credits must be taken at Syracuse University. Successful candidates for either doctoral degree must pass a preliminary examination early in the program, and qualifying examinations in the field of specialization and any supporting minor areas later in the program; demonstrate competence in research; write a dissertation based upon an independent investigation that adds to existing knowledge in the field; and pass an oral defense of the dissertation. An overall B average, completion of a residency or time-to-completion requirement, and completion of all requirements within 5 years of the qualifying examination are also required. All candidates for the Ph.D. degree are required to complete a research apprenticeship, including a supervised research activity over a period of not less than one year, under the direction of a University faculty member. Ed.D. students must complete a practicum requirement.

### Non-matriculated Students

Students with a bachelor's degree from an accredited institution may take courses in the School of Education without enrolling in a degree program (non-matriculated student). Some courses require approval of the instructors. Enrolling in coursework as a non-matriculated student does not allow the non-matriculated student the same academic advisement as matriculated students. No more than 9 credits taken before matriculation may be transferred to a degree program. No more than 6 credits may be taken prior to matriculating into the Higher Education M.S. degree program. All such courses

must be approved by the student's advisor. A registration hold will be put on students' accounts who have reached this limit.

## Graduate Admissions

Graduate study at Syracuse University's School of Education offers students opportunities to participate in a vibrant learning community. Students and faculty work together in a variety of laboratory research and clinical settings on campus, in schools, and in related educational agencies. Graduate students acquire the advanced knowledge and skills needed to be successful leaders. Advantages to pursuing graduate study at the School of Education include the insight of professors holding dual appointments in the school and other colleges in the University, cooperative relations of colleges and departments, and availability of supporting services.

The school is composed of the following seven academic departments:

Counseling and Human Services  
Cultural Foundations of Education  
Exercise Science  
Higher Education  
Instructional Design, Development, and Evaluation  
Reading and Language Arts  
Teaching and Leadership

Why students consider graduate study at the School of Education:

- Syracuse University's School of Education has prepared scholars from around the world.
- Students become part of a community that has a commitment to inclusion and diversity. The School of Education pioneered the inclusion movement in the United States, making it possible for all learners to participate in typical classrooms.
- Both teaching and non-teaching degree programs are offered.
- Students are assured opportunities for research, clinical practice, and internships designed to clarify relationships of theory and practice.
- Students are assured the assistance of a mentoring faculty to help them truly benefit from their experiences at Syracuse University.
- The School of Education is comprised of approximately 700 graduate students who have the opportunity to develop personal and professional relationships that will last a lifetime.
- Students enjoy the advantages of a multidisciplinary approach to learning.

## How to Apply

# GRADUATE COURSE CATALOG

For more information about graduate study, please contact Laurie Deyo, Graduate Admissions Recruiter, School of Education, 111 Waverly Avenue, Suite 230, Syracuse, N.Y. 13244-2340; e-gradrcrt@syr.edu, 315-443-2505.

## Ready to Apply?

The Syracuse University online application is available at <https://apply.embark.com/grad/syracuse/37/>.

## Deadlines

Individuals interested in applying to a master's or doctoral degree program should contact the academic department overseeing the program of study to obtain deadline information.

In general, most graduate programs within the School of Education participate in rolling admissions and admit students on a space-available basis. The School of Education will continue to receive and review applications on a space-available basis.

## Graduate Application Fee

The Graduate Application Fee is \$75.

## Internal Admission Process

Students who are currently enrolled in a Syracuse University graduate program, or who have completed a Syracuse University graduate program within the last 12 months may apply for a new graduate program by using the Graduate Enrollment Internal Admission Application. The internal admission application and instructions are available in the Office of Academic and Student Services, located at 111 Waverly Avenue, Suite 230. Students enrolled in concurrent master's programs must complete the requirements for both programs prior to graduation. There is no fee for the internal admission process.

## Graduate Financial Aid

The School of Education offers a variety of funding opportunities for graduate students. This funding includes scholarships, graduate and teaching assistantships, in addition to opportunities for grants. The School of Education provides merit based as well as non-competitive scholarships. A number of the funding opportunities offered have deadlines for application submission. There are several categories of scholarships available only to School of Education students.

Click here and use the links in the left hand column to learn more about funding opportunities.

## The Office of Financial Aid and

## Scholarship Programs

The Office of Financial Aid and Scholarship Programs is available to address questions, offer options for payment, assist in filing student loan and grant applications, and suggest financial planning options. For additional financial aid information, call (315) 443-1513 or email [FinAidG1@syr.edu](mailto:FinAidG1@syr.edu).

## Assistantships

The School of Education offers graduate and teaching assistantships to graduate students with superior qualifications. These graduate assistantships may include tuition support and a stipend. Assistants have responsibilities to the University not exceeding an average of 20 hours a week and devote the remainder of their time to study and research. Applicants for assistantships should write to the chair of the program to which they are applying, highlighting relevant background for the type of assistantship in which they are interested and emphasizing information not included in the admissions application. Applicants interested in assistantships in other University departments should send inquiries directly to those departments.

## Graduate Student Tuition Scholarship Program

This scholarship was created to assist students who have graduated from Syracuse University (any degree program) within the last five years and who enroll full-time in a selected School of Education Master of Science (M.S.) program listed below. This tuition scholarship program offers graduate students in eligible programs funding covering 33% of the student's tuition.

Students in the following preparation/professional M.S. programs are eligible to receive the scholarship:

- Art Education
- Clinical Mental Health Counseling (for SU Selected Studies in Education graduates ONLY)
- Early Childhood Special Education
- English Education
- Exercise Science (for SU Health and Exercise Science graduates ONLY)
- Inclusive Special Education (Grades 1-6 and 7-12)
- Inclusive Special Education (Severe/Multiple Disabilities)
- Instructional Technology
- Literacy Education (Birth-Grade 12)
- Mathematics Education
- Music Education

- School Counseling
- Student Affairs Counseling (for SU Selected Studies in Education graduates ONLY)
- Science Education (Earth Science, Biology, Chemistry, and Physics)
- Social Studies Education
- Teaching English Language Learners
- Teaching and Curriculum

The tuition scholarship program covers 33% of the tuition charges students are responsible for paying each semester during which the student is enrolled as a full-time student in an approved program (or part-time master's students who are Syracuse City School District employees).. Full-time study is defined as registered for 9 credits for fall and spring (or a total of 6 credits for summer). Students must formally be admitted and matriculated into one of the specified M.S. programs and maintain satisfactory academic progress toward that degree, which includes attaining and maintaining a 3.0 cumulative grade point average by the end of the second semester in an eligible program. The tuition scholarship program applies to Master's programs only. While the scholarship may be combined with most other financial aid, the scholarship is applied first to the tuition owed before all other funding is awarded. There will be no cash refunds or payouts. The scholarship is offered to eligible students in their admission packet from the Graduate School. Students who sign the letter of acceptance for the scholarship are automatically credited 33% of their tuition each semester of study in their program.

For further information please contact Laurie Deyo (315) 443-2505 or e-gradrcrt@syr.edu.

## The High Needs Fields Graduate Student Scholarship

The Professional Preparation for High Needs Fields Graduate Student Scholarship identifies high-needs areas as science, mathematics, special education, literacy, instructional technology, and teaching English language learners and offers graduate students in these programs scholarships covering 33% of the cost of tuition. The scholarships are available to all qualified full-time master's students as well as part-time master's students who are Syracuse City School District employees.

To be eligible, full-time students must be enrolled in one of the programs listed below. Full-time study is defined as registered for 9 credits for spring or fall (or a total of 6 credits for summer) in a program approved by the student's graduate advisor. Part-time students who are employees of the Syracuse City School District and enrolled in one of the programs listed below also are eligible.

## GRADUATE COURSE CATALOG

All eligible students must be formally admitted into one of the specified master's programs and maintain satisfactory academic progress toward that degree, which includes attaining and maintaining a 3.0 cumulative grade point average by the end of the second semester in the program. The scholarship does not cover tuition for undergraduate courses even if required as a condition of full admission to the master's program. (Undergraduate coursework may be required in order to fulfill prerequisites for graduate study.) While the award may be combined with most other financial aid, there will be no cash refunds or payouts.

Students in the following professional preparation MS programs are eligible to receive the award:

- Instructional Technology
- Literacy Education (Birth - Grade 12)
- Mathematics Education
- Science Education (Earth Science, Biology, Chemistry, or Physics)
- Special Education Programs:

Early Childhood Special Education B-2

Inclusive Special Education 1-6

Inclusive Special Education 7-12 (Generalist)

Inclusive Special Education Severe/Multiple Disabilities

- Teaching English Language Learners (T.E.L.L.)
- Students in the Teaching and Curriculum M.S. program who will be seeking New York State Teacher Certification (on their own) in Science or Math
- Current "non-high needs" M.S. teacher preparation programs taken simultaneously with a documented "high needs" program

Eligible students complete an on-line scholarship application each semester. Scholarships are awarded and credited to student bursar accounts typically within two weeks of the University financial aid deadline for dropping courses. The value of the scholarship is calculated based on the total number of credit hours for which the student is registered, combined with any outside scholarships/funding. The tuition bill for which the students is responsible is then credited 33% of the student's tuition. The deadline for submitting scholarship forms is typically one week after the University add deadline of the current semester, although forms should be submitted as soon as students have completed their registration for the semester. No exceptions will be made for late submissions.

For additional information contact:  
Laurie Deyo  
e-gradrcrt@syr.edu-gradrcrt@syr.edu  
(315) 443-2505

### School of Education Scholarships

The School of Education offers several competitive scholarships. These scholarships are specific to the School of Education and vary in number of tuition credits and monetary awards. Approximately 15% of School of Education students will receive one of these scholarships.

For additional information contact:  
Angela Flanagan, Scholarship Coordinator  
Awards & Scholarship Committee  
250 Huntington Hall  
Syracuse, New York 13244-2340  
Phone: (315) 443 - 4752

### SU Office of Sponsored Programs

This office offers information on a wide range of external funding opportunities for SU graduate students. Click on the Funding Opportunities link and then the Graduate Student Funding Opportunities link at <http://osp.syr.edu>.

### TEACH Grant

The College Cost Reduction and Access Act of 2007 created the Teacher Education Assistance for College and Higher Education (TEACH) 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.

For additional information, call (315) 443-1513, email [finmail@syr.edu](mailto:finmail@syr.edu) or visit: [http://www.syr.edu/financialaid/financialliteracy/teach\\_grant.html](http://www.syr.edu/financialaid/financialliteracy/teach_grant.html)

## 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

## GRADUATE COURSE CATALOG

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

**\*\*Required for all New York State Teacher Certifications and for all initial certification (teacher preparation) programs:**

EDU 366 (formerly EDU 400) Safe and Healthy Learning Environments (0 credits for graduate students, 1 credit for undergraduates), 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. Students who have already met requirements for a New York State certificate may already have this completed. Those who earned their other certificate in another area before the DASA requirement was instituted will have to complete DASA training.

### Initial Certification

- Is the first New 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 Bachelor s Level

- Earn a Masters degree leading to professional certification in area of initial certification.
- Earn a Masters degree in a new certification area.
- Earn a 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.
- 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.

### 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 the Career Services Coordinator.
- 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.

## GRADUATE COURSE CATALOG

- Resume and cover letter review and assistance. Please email request for an appointment to the Career Services Coordinator.

### 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 recruiters visiting from a variety of school districts.

### 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 both Domestic and Abroad:  
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

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

- 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
- Collegiate Science and Technology Entry Program (CSTEP)
- Science and Technology Entry Program (STEP)
- Louis Stokes Alliance for Minority Participation (LSAMP)
- Arthur O. Eve Higher Education Opportunity Program (HEOP)
- Student Support Services (SSS)
- Intergroup dialogue
- Regional Holocaust and Genocide Initiative
- McNair Scholars Program
- Extended Campus
- Office of Professional Research and Development

### Master's

### Art Education: Preparation, MS

### Contact:

James H. Rolling Jr., Comstock Art Facility Rm 043,  
315-443-2355, jrolling@syr.edu



## GRADUATE COURSE CATALOG

Graduate programs in Art Education are focused upon three distinct areas of study emphasis:

- arts & design practices as a means for personal agency and social responsibility,
- developing arts & design curricula for teaching and learning in multiple contexts,
- and interdisciplinary research promoting creative leadership and entrepreneurship.

The Art Education Preparation M.S. program is one of two master's degree programs in the department, and meets the academic requirements for New York State initial teaching certification in Visual Arts (all grades). This program is designed for students who already have an undergraduate degree in studio art or another discipline outside of teaching with sufficient credits in art, but do not have an education background. This 45 credit hour program awards the M.S. degree from the School of Education, in cooperation with the College of Visual and Performing Arts (VPA). The college's programs are accredited by the Council for the Accreditation of Educator Preparation and the National Association of Schools of Art and Design. Art Education faculty members hold dual appointments in both the School of Education and the College of Visual and Performing Arts.

The Department of Art Education is housed in the Comstock Art Facility, a building which also features facilities for sculpture, printmaking and ceramics, a foundry, and other various workshop areas. Art Education Preparation students participate as teachers of the Syracuse University Saturday Art Workshops for Young People, and may also contribute to additional community-engaged projects run by the Art Education Department, each serving as a laboratory allowing for valuable firsthand experience prior to the final student teaching internship. Through the School of Education, SU Art Education also works with a number of area teachers and schools who supervise other early field experiences and the two culminating student teaching placements.

The Student Art Education Association at Syracuse University (SAEASU), affiliated with the National Art Education Association, offers opportunities to enrich pedagogical practice by facilitating social and networking opportunities for professional development, hosting guest speakers, and promoting and practicing outreach and community service.

### Program requirements

#### Master's degree courses (45 credits total):

- **AED 617 - Philosophy & Foundations of Art Education Practice 3 credit(s)**

- **AED 510 - Special Problems in Art Ed 1-6 credit(s)**
- **EDU 778 - Narrative Inquiry in Research and Creative Practice 3 credit(s)** or
- **AED 798 - Making Methodology: Exploring Arts-based Research 3 credit(s)** or
- **EDU 603 - Introduction to Qualitative Research 3 credit(s)**
- **SED 640 - Participation in the Professional Development School 0-1 credit(s)** (This is taken during each fall and spring semester except the student teaching semester.)
- **EDU 601 - Methods and Practice in Teaching Art 4 credit(s)**
- **AED 621 - Making Meaning: Socially Responsible Arts & Design Practices 3 credit(s)**
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s)**
- **EDU 602 - Methods and Curriculum in Teaching Art 4 credit(s)**
- **EDU 660 - Field Workshop 3-6 credit(s)** (topics vary)
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** (two different grade levels)

#### Note:

\*EDU 605 and EDU 607 may be replaced with EDU 606 Understanding Teaching & Learning (4)

### Intensive Examination

The final requirement of master's degree study also requires the completion of an Intensive Examination. Completing a take-home Master's Examination can fulfill this requirement. However, with departmental approval, a Master's thesis or special project is also an option in this program.

### Liberal Arts and Art and Design Credits required:

It is expected that students will enter the program with most of these requirements completed. However, if not, all requirements must be completed before a master's degree can be granted.

Art and design content. This is met by either an undergraduate degree in an appropriate area of art, or a degree in another area with 36 semester hours of art content. The art content should

include 9 credits of art history; depth of study in a two-dimensional, three-dimensional, or time based mode of artmaking; and breadth of study through a variety of other studio courses. Typically, a 3.0 average in these courses is required.

Liberal arts distribution. In addition to art history study students are expected to have met with appropriate courses and grades, one course each in mathematics, natural science, social science (not history or psychology), and humanities (not arts related). In addition a writing course or its equivalent is required, and a language other than English requirement must be met by either one college course, successful completion of level 3 or higher in high school, or appropriate testing.

## Art Education: Professional Certification, MS

### Contact:

James H. Rolling Jr., Comstock Art Facility Rm 043, 315-443-2355, jrolling@syr.edu

Graduate programs in art education are operated in accordance with the following purposes, undertakings, and core values: the exploration of the ideas, materials, and aesthetics through which we shape meanings, negotiate identity, and organize society; the development of arts-based and design-oriented curricula promoting multiliteracies, inclusivity, critical inquiry, and social responsibility; the promotion of interdisciplinary and collaborative research opportunities intersecting arts praxis, educational theory, community scholarship, and qualitative methodologies.

### Major Requirements

The Art Education: Professional Certification M.S. program is designed for students who seek a master's degree leading to New York State professional certification. This program requires 30 credits of study with either a research or studio arts concentration. The prerequisite to this program is initial New York State teaching certification in visual arts.

The Syracuse University Student Art Education Association (SUSAEA), a chapter of the National Art Education Association, offers opportunities to enrich pedagogical practice by facilitating social and networking opportunities for professional development, hosting guest speakers, and promoting and practicing outreach and community service.

## Clinical Mental Health Counseling, MS

## GRADUATE COURSE CATALOG

### Contact:

Nicole Hill, Ph.D., Chair, Hoople Building, lower level 315-443-2266, nrhill@syr.edu

### Major Requirements

The Master of Science in Clinical Mental Health Counseling prepares students for employment in a variety of human service settings, including:

- Community Mental Health Agencies
- Schools
- Colleges/Universities
- Hospitals
- Government Agencies
- Domestic Violence and other Social Service Organizations

Students develop skills in clinical mental health counseling, multicultural/social justice counseling, career counseling, substance abuse services, empowerment approaches for urban youth, and crisis counseling. Students who graduate from this program meet all educational requirements for the New York State license in clinical mental health counseling (LMHC). After completion of the program, students may apply for a limited permit to practice mental health counseling, while accumulating the required post degree hours to sit for the licensure exam. Students also meet the educational requirements for licensure as a mental health counselor in most other states.

The Department of Counseling and Human Services has been a pioneer in training highly skilled practitioners and leaders in a wide range of counseling settings. Syracuse's programs are nationally accredited and can lead to national certification or state certification in school counseling or licensure as a clinical mental health counselor.

Programs include extensive fieldwork opportunities in which students gain hands-on experience working with students and clients in a wide range of counseling and educational settings. Students work closely with their advisor, and the fieldwork coordinator to identify settings that meet their individual interests and career goals. The faculty is nationally recognized for their leadership in the profession and all classes are taught by skilled experts and experienced clinicians.

The faculty is deeply committed to the growth and development of their students; faculty work closely with both our master's and doctoral students. Students are trained in the most current information in counseling and provided the opportunity to develop their skills and succeed in their chosen area of specialization. The department's goal is to prepare national leaders in counseling. It seeks to develop a diverse group of professionals who will excel in knowledge,

skills, commitment, and service in a wide range of educational and community settings.

### S.U. Re-Accredited through 2016:

After an extensive review of the Counseling and Human Services Programs, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) recently announced that Syracuse University's programs have met all expectations, and granted us the full eight year accreditation period for all of our accredited master's degree programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling), as well as our Counselor Education Ph.D. program. This means each of these programs will be accredited by CACREP until 2016. This decision is a testament to the quality education offered here at Syracuse University, and a signal of support for the work that is done here.

### Cultural Foundations of Education, MS

#### Contact:

Barbara Applebaum, Chair, 363 Huntington Hall, 315-443-3343, bappleba@syr.edu

Cultural Foundations of Education is a highly demanding and nationally prominent interdisciplinary graduate program created to support fundamental inquiry into the nature of education. Graduate students draw on the disciplines of history, philosophy, and sociology to analyze issues related to inequality in education. Faculty interests include disability, the relationship of popular culture and mass media to education, race, racism and multiculturalism, identity and difference, democracy and education, intergroup dialogue, theories of knowledge and feminist theory. Our alumni have success finding jobs in higher education, foundations, policy research, school systems, and government agencies.

Each program is individually designed, allowing students to work with their advisors to build their own program around their research interests. This may include courses from other Syracuse University programs and colleges, including the Maxwell School of Citizenship and Public Affairs, the S.I. Newhouse School of Public Communications, and the College of Arts and Sciences. At the same time, cohorts of students take courses in the department together so that students share a common vocabulary.

Faculty members are well-known in their fields and actively engaged in ongoing research. The department's outstanding graduate students collaborate with faculty in research, publishing, and professional activities. The department

regularly sponsors opportunities for students and faculty to share their work, discuss current issues, or read and critique current articles. There is a strong emphasis on community amongst scholars.

### Major Requirements

The Master of Science degree program in Cultural Foundations of Education is designed to foster and support fundamental inquiry into the nature of education. Students draw on history, philosophy, sociology and other disciplines to analyze such issues in education as inequality, disability, popular culture, mass media, the philosophy of multiculturalism and racism.

Graduate students choose Cultural Foundations of Education because each program of study is individually designed. Students may build their work around their own research interests and are encouraged to use diverse research approaches, such as combining philosophical analysis with empirical work or historical research with policy analysis. Cultural Foundations of Education supports interdisciplinary work and students are encouraged to choose courses from across the broad spectrum of Syracuse University's schools and colleges, including Maxwell School of Citizenship and Public Affairs, the S.I. Newhouse School of Public Communications and the College of Arts and Sciences.

A master's degree in Cultural Foundations of Education is designed for the student seeking a broad education with disciplinary competence as well as commitments to social purpose and academic excellence.

### Early Childhood Special Education, MS

#### Contact:

Gail Ensher, 150 Huntington Hall, 315-443-9650, glensher@syr.edu

The Early Childhood Special Education program leads to certification in both general early childhood and early childhood special education, birth through grade 2. This program reflects the most up-to-date thinking about teaching infants, young children, and primary-age children (with or without special needs). The primary goal of the program is to prepare teachers to work effectively with children of a variety of ages and cultural and linguistic abilities, and serve children who live in diverse family systems in a range of home, community, and educational settings. We seek to accomplish this through collaboration and teamwork among professionals of diverse disciplines and in partnership with the families we serve.

The ECSE program draws upon the expertise and

## GRADUATE COURSE CATALOG

scholarship of faculty members who are leaders in the fields of child and family studies, early childhood, special and elementary education, literacy, and other related professional disciplines, including neonatology, physical therapy, speech therapy, and occupational therapy. The program has a long-standing history of providing training that infuses clinical practice with current research. As they study areas such as early assessment and intervention with infants, students work closely with faculty members who have extensive clinical experience. Syracuse ECSE has developed close ties and strong relationships to community educators and other professionals who serve high-needs populations of young children and families.

The graduate program in ECSE admits students who have backgrounds or certification in childhood special education as well as qualified students entering the program from other fields.

It meets the academic requirements for both New York State early childhood birth-grade 2 and students with disabilities birth-grade 2 teaching certificates. We admit:

- students who have backgrounds or certification in one (but not both) of these areas (early childhood or children with disabilities);
- students who have certification in another teacher certification area;
- qualified students who do not have previous education coursework. Each student's credentials are evaluated on an individual basis, but here are some general guidelines concerning the length of the course of study.

Each applicant will have undergraduate transcripts reviewed (we encourage this to take place before applying) for the liberal arts requirements listed below. Missing coursework does not need to be completed before applying and in most cases can be completed during graduate study.

A liberal arts major or concentration of at least 30 credits, of which at least 15 credits represent upper division courses;

A college writing course completed with a grade of B- or higher or an equivalent demonstration of writing competency, as judged by the program; Two appropriate college-level mathematics courses, with grades averaging at least B- and neither grade below C.

Two appropriate natural science courses with laboratories, with grades averaging at least B- and neither grade below C; in some cases, appropriate non-laboratory science courses may be substituted, as judged by the program:

- A social science course other than psychology or history;
- A humanities course other than history or artistic expression;
- An artistic expression course or significant experience in one or more of the arts, as judged

by the program;

- A history course;

- A language other than English (which may be American Sign Language) through the first level of college study. This requirement can also be met through the passing of a Level 3 course of a language in high school.

***Those who have an active New York State initial certificate in childhood 1-6 or early childhood B-2 are considered as having met many of the requirements listed above. We do continue to review the writing, mathematics, and natural sciences requirement.***

### Sample Curriculum:

As noted above, each student's program varies according to interests, prior coursework, and professional experience. A program for a student without prior study or certification in Education or Early Childhood might look like the following:

A student with prior background may have courses waived.

### First Summer Semester

- **EED 643 - The Parent/Caregiver-Professional Partnership 3 credit(s)**
- **EED 654 - Teaching Mathematics, Science and Social Studies in Early Childhood Special Education 3 credit(s)**
- **SPE 653 - Positive Approaches to Challenging Behaviors 3 credit(s)**

### First Fall Semester

- **ELL 625 - Methods of Teaching Literacy to English Language Learners 3 credit(s)**
- **SPE 520 - Methods and Curricula in Early Childhood Special Education 3 credit(s)** with a 10 hours per week required practicum assignment or alternative by advisement.
- **SPE 618 - Augmentation of Communication in the Inclusive Classroom 3 credit(s)**
- **SPE 706 - Seminar in Early Childhood Special Education 3 credit(s)**

### Spring Semester

- **CFS 667 - Chld&Fam Crss/Citrl Persp 3 credit(s)**
- **SPE 623 - Families of Students with Disabilities 3 credit(s)**
- **SPE 627 - Early Intervention for Children's Reading Problems 3 credit(s)**

- **SPE 705 - Practicum in Psychoeducational Evaluation and Planning for Exceptional Children 3-6 credit(s)**

- Safe and Healthy Learning Environments (0 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. Students who have already met requirements for a New York State certificate may already have this completed. Those who earned their other certificate in another area before the DASA requirement was instituted will have to complete DASA training. These must be completed before student teaching.

### Second Summer Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** ECSE (offered at the Jowonio School)
- **EED 640 - Participation in the Professional Development School 0-1 credit(s)**
- **SPE 633 - The High-Risk Infant: Medical Treatment and Educational Interventions 3 credit(s)**

### Second Fall Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** Early Childhood Full-time, requiring 7 weeks in regular kindergarten; and 2 weeks of documented observation in Grade 1 or 2
- **SPE 613 - Developmental Therapy for Children with Disabilities 3 credit(s)**
- Students complete a portfolio of specified assignments as a culminating experience, including the edTPA and other evidence of professional competence.

### Note:

- Students admitted without any certification or prior training in education or special education typically require a total of 60 graduate credits to complete the program.
- Students with appropriate backgrounds may be able to complete fewer graduate credits (no fewer than 36) and possibly one less semester

## Educational Leadership, MS

(For International Applicants Only)

## GRADUATE COURSE CATALOG

### Contact:

Joseph Shedd, 150 Huntington Hall, 315-443-2685, jbshedd@syr.edu

The M.S. degree in Educational Leadership is reserved for international students with teaching experience only.

Inherent in the design of the Master of Science in Educational Leadership program is a definition of educational leadership exercised by teachers and other school professionals as well as administrators—a definition that requires our graduate students to grapple with a variety of theoretical and policy perspectives, and challenges them to identify and address the tensions inherent in different ways of understanding the purposes and processes of education.

### Major Requirements

Our program reflects these principles by requiring students to confront the demands of providing leadership for learning in both field and academic settings and by expecting them to integrate the insights afforded by each. We meet these objectives by cultivating closer connections between the university and the field, through active involvement of field leaders in the admissions, advising, instruction, and assessment processes, and through intensive involvement of students in a variety of forms of research, development, inquiry, and service in actual school settings.

### English Education: Preparation (7-12), MS

### Contact:

Dr. Kelly Chandler-Olcott, 200 Huntington Hall, 315-443-4755, kpchandl@syr.edu

### Description

The program graduates new professionals who are prepared to teach English language arts, composition and writing, digital literacies, and a wide range of literature to diverse students in grades 7-12. It aligns with the professional standards of the National Council for Teachers of English and the New York State Teaching and Learning Standards. From experiences in university classrooms, online, and in schools and communities, students learn to design inclusive, culturally relevant pedagogy for 21st century classrooms. Graduates understand the key role that English educators play in developing literacy across the curriculum and for life purposes that extend beyond school.

Historically, the Reading and Language Arts department has enjoyed cooperative relationships with area public schools, BOCES, and local companies that permit candidates to gain field experience and, where appropriate, conduct research in school and workplace settings. In addition, English Education maintains a close tie with the other programs in the Reading and Language Arts department.

This program is intended for those with an English major or major equivalent (see below) who are seeking teaching certification (preparation program). In combination with the English and liberal arts distribution credits described below, it meets the academic requirements for New York State initial teacher certification in English Language Arts for grades 7-12.

### Master's Degree Course Requirements

The program requires 35 credits, and may be completed in 12 months, beginning in May. However, students who enter with education study equivalent to one of the courses below may have their syllabi reviewed for waiver of courses. In no case will fewer than 30 graduate credits be required.

(courses with \* include field experience)

#### First Summer

- **EDU 606 - Understanding Learning and Teaching 4 credit(s)**
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s) \*** (4 credits required)

#### Fall - Candidacy Semester

- **SPE 613 - Developmental Therapy for Children with Disabilities 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** /English/Candidacy (3 credits) \*
- Safe and Healthy Learning Environments (0 credit), 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.

#### Spring - Standard Student Teaching Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** 6 credit(s) \*
- **RED 512 - Children's and Adolescent Literature 3 credit(s)**
- **SED 616 - Assessment & Data-Driven Instruction 3 credit(s)**

### Intensive Examination

A master's degree intensive examination is also required.

### Liberal Arts Course requirements

The requirements of this program include several undergraduate science and distribution courses. It is not unusual that an applicant will have one or more of these courses left to take. These do not need to be completed before applying and may be taken at an institution other than Syracuse University. However, some of the courses need to be done before starting the graduate program, and all must be finished before a degree can be granted. We help prospective students identify appropriate courses.

Interested students should contact the English Education program coordinator as early as possible (including before applying) to have unofficial transcripts reviewed against the liberal arts requirements. This allows more time to enroll in needed courses.

### English Content

This program requires a completed major in English; or a major in another area, with no fewer than 30 English credits before earning a master's degree, with a significant number of those completed before entering the program. For those without a major in English, 18 of the 30 credits must be upper division or its equivalent. A strong complement of writing should be included, with at least 9 credits of writing instruction or writing intensive courses. A limited number of related courses (e.g., journalistic writing; drama history, etc.) from departments other than English will be considered on a course-by-course basis.

### Additional Liberal Arts Distribution courses

(one from each, with no grade less than a C):

- Mathematics
- Natural Science
- History
- Social Science (other than history or psychology)
- Artistic Expression (course or equivalent)
- Language other than English, including

## GRADUATE COURSE CATALOG

American Sign Language (completion of high school Foreign Language Level 3 or higher may be substituted.)

### Exercise Science, MS

#### Contact:

Tom Brutsaert, Chair, 201 Women's Building, 315-443-9696, tdbruta@sy.edu

The master's program in exercise science is designed to train students for positions in hospitals and in corporate and private agencies that provide fitness and wellness programming and rehabilitative exercise programs. An emphasis on research in applied physiology also prepares students for doctoral programs in exercise science. Students in exercise science have the opportunity for supplemental study in areas such as nutrition, health promotion, and sports medicine. Because exercise science is functionally related to physical education, physical educators with provisional/initial teaching certification may use graduate study in exercise science to obtain permanent/professional teaching certification.

#### Major Requirements

The M.S. degree requires 36 credits of formal course work to be selected in consultation with the student's advisor. Three specialty tracks are available through careful selection of electives:

- Exercise Physiology and Fitness
- Clinical Exercise Physiology (including Cardiac Rehabilitation)
- Research in Exercise Physiology

The Master's degree requires 24 credits including:

- General Biology (8 credits)
- Human Anatomy & Physiology (8 credits)
- Chemistry (8 credits)
- PLUS: 6 credits of exercise science including:
  - Physiology of Exercise
  - General Science\*

#### Note:

\*May be used to constitute a minimum of 24 credits of sciences

#### Additional Information

Doctoral study with an emphasis in applied exercise physiology is presently offered in conjunction with the School of Education's Science Education Ph.D. program. This highly individualized doctoral degree in Science Education with a concentration in exercise physiology is a research intensive program offered

through the Science Education Department. In addition to course work, students work with their faculty mentor on various research projects. Students are encouraged to contact their potential faculty mentor directly prior to applying.

### Higher Education, MS

#### Contact:

Cathy Engstrom, Chair, 350 Huntington Hall, 315-443-4763, cmengstr@sy.edu

Higher Education focuses on issues of diversity and inclusion, as applied to both the theory and practice of student success, development and learning in higher education. Given the increasing diversity of college student backgrounds, critical reforms are needed in higher education in order to develop diverse curricular and non-curricular structures, practices, policies, and pedagogies that embrace and build upon students' talents, experiences, and potential so they learn, develop, and succeed. Due to the complexity of the issues facing higher education around the world, students draw on resources in the School of Education and across the University to provide an interdisciplinary, foundational perspective supplemented by ongoing, integrated practical experiences. Students analyze higher education at a variety of levels, including individual students, student populations, institutions, and systems of higher education, and the policies and practices related to each that foster the success of all college students.

#### Major Requirements

Course offerings cover student development and learning, student attainment and retention; race and gender in higher education; student affairs administration; administrative theory and practice in higher education; learning communities; legal issues in higher education and history.

A hallmark of these programs and their coursework is community and collaboration. Many courses require collaborative group work that involves students as active learners in class and in our program learning community. At the same time, the program is structured to promote collaboration among students, faculty, and administrators. Whenever possible, students and faculty will work together on collaborative research and administrative projects.

The Doctoral degree program include coursework throughout the University so students can draw upon the expertise of faculty from departments in the School of Education (e.g., Cultural Foundations of Education) and a variety of schools including the Maxwell School of Citizenship and Public Affairs and the School of Management. Both degree programs also offer

field and internship experiences (required for all master's degree students) which are available at the University and a diversity of neighboring institutions. Doctoral students specializing in higher education are required to have a minimum of three years of full-time experience in higher education. Because the department and its faculty have a strong reputation within the field, graduates of the program are typically embraced by a vibrant market offering a variety of positions.

#### Note:

No more than 6 credits may be taken prior to matriculating into the higher education M.S. degree program. No more than 9 credits post master's degree may be taken before matriculating into the Ph.D. program. All master's students must take a minimum of 9 credits per academic year. All doctoral students must complete 12 credits per academic year.

### Inclusive Special Education (Generalist) Grades 7-12, MS

#### Contact:

Christine Ashby, 376 Huntington Hall, 315-443-8689, ceashby@sy.edu

The program leading to the master of science (M.S.) degree in Inclusive Special Education (Grades 7-12) Generalist builds on the long and distinguished traditions of inclusive education and disability studies at Syracuse University that examines disability as a social, cultural, and political construct, linked to issues of race, class and gender. A grounding assumption of the program is that students with disabilities must have access to academic instruction and social learning that is available to all students.

Students with no prior study in education, or with a certificate in another area, who are interested in working in supporting roles in grades 7-12 may apply to this program. Master's degree candidates explore innovative approaches to modifying and adapting instruction, curriculum, and classroom structures to maximize active, meaningful participation of all learners. Students in the program participate half days during the Fall and Spring semester in area schools and collaborate on planning, assessment and teaching teams. This intensive fieldwork helps students connect theory and practice. Through coursework students build competencies in using alternative assessments, integrating instructional and assistive technologies, and meeting the social, communication and academic needs of students. Students also learn to regard individuals with disabilities as important sources of knowledge

## GRADUATE COURSE CATALOG

and planning, based on the perspectives of these individuals themselves.

This 30-42 credit program (depending on prior coursework) can accommodate either full-time or part-time students, although availability for student teaching/field placements during the day is necessary. Full time students may complete the program in 15 months, following a summer-fall-spring-summer sequence of courses. A liberal arts concentration and appropriate coursework in core academic areas are also required; students often enter with many of these courses already completed, and have the opportunity to complete remaining courses before, during, or after the graduate coursework.

The program, along with the liberal arts requirements listed below, meets the academic requirements for the New York State Students with Disabilities 7-12 Generalist teaching certificate. There are also application, testing and other requirements for certification.

### M.S. in Inclusive Special Education (7-12) Generalist course requirements:

- **EDU 606 - Understanding Learning and Teaching 4 credit(s)**
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s)**
- **DSP 614 - Critical Issues in Dis/Ability and Inclusion 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **SPE 665 - Positive Behavior Supports in Secondary Schools 3 credit(s)**
- **SPE 634 - Collaboration/Cooperation in Schools 3 credit(s)**
- **SPE 615 - Seminar in Teaching 1-2 credit(s)** (fall) 1 credit(s)
- **EDU 508 - Student Teaching 2-15 credit(s)** (fall) 3 credit(s)
- **SPE 724 - Inclusive Professional Practices in Special Education 3 credit(s)**
- **SPE 644 - Significant Disabilities: Shifts in Paradigms and Practices 3 credit(s)**
- SPE 615 - Seminar in Teaching 1-2 credit(s) (spring) 1 credit(s)
- EDU 508 - Student Teaching 2-15 credit(s) (spring) 3 credit(s)
- **SPE 705 - Practicum in Psychoeducational Evaluation and Planning for Exceptional Children 3-6**

### credit(s)

- **SPE 618 - Augmentation of Communication in the Inclusive Classroom 3 credit(s)** or
- **SPE 652 - Assistive Technologies for Integrating Students with Special Needs 3 credit(s)**
- **RED 621 - Literacy Intervention for Special Educators, Grades K-12 3 credit(s)**

### Culminating Experience

In addition, students must submit a peer reviewed Professional Teaching/Learning Portfolio for evaluation.

Total Credits Required: 30-42 depending on background

### Also required:

Safe and Healthy Learning Environments (0 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.

### Liberal Arts Course requirements/Prerequisites:

The requirements of this program include several undergraduate liberal arts concentration and distribution courses, with no less than a C grade. It is not unusual that an applicant will have one or more of these courses left to take. These do not need to be completed before applying and may be taken at an institution other than Syracuse University. All must be finished before a degree can be granted. The program helps prospective students identify appropriate courses, and encourages interested students to have early contact about these.

### Liberal Arts Concentration or Major

A liberal arts concentration or major of at least 30 semester hours, with 15 upper division credits, or equivalent, is required. The program does admit students with college majors in non-liberal arts areas. The transcript review process includes determining the best concentration area choice and how many additional courses students may need to take. If appropriate, concentration courses may also be used to meet the distribution course requirements listed below.

### Distribution course requirements:

- Writing
- Literature
- Mathematics (2 courses)
- Natural Science with laboratory
- Other Natural Science
- Artistic Expression
- History
- Social Science other than History
- Language other than English including American Sign Language (completion of high school Foreign Language Level 3 or higher may be substituted.)

### Inclusive Special Education: 1-6 Preparation, MS

### Contact:

Christine Ashby, 376 Huntington Hall, 315-443-8689, ceashby@syr.edu

This master's degree program in inclusive special education is designed to prepare students to work with individuals with disabilities in grades 1-6. It meets the academic requirements for initial/professional New York State teacher certification in Students with Disabilities (1-6). Students may complete the 32-credit program either full (in 15 months) or part-time (although daytime availability for field experience and student teaching is required) or concurrently with another master's program. Applicants must first have met the requirements for the New York State initial childhood teaching certificate, with all requirements met before beginning the program.

The program builds on the long and distinguished traditions of inclusive education and disability studies at Syracuse University. The philosophies of the program expand on these traditions to examine disability as a social, cultural, and political construct inextricably linked to issues of race, class, and gender. A grounding assumption of the program is that students with disabilities must have access to academic instruction and social learning available to students without disabilities. To this end, students in this program explore innovative approaches to modifying and adapting instruction, curriculum, and classroom structures to maximize each student's strengths and encourage meaningful participation in inclusive classrooms..

### M.S. in Inclusive Special

Education 1-6 course requirements:

- **DSP 614 - Critical Issues in Dis/Ability and Inclusion 3 credit(s)**
- **SPE 653 - Positive Approaches to Challenging Behaviors 3 credit(s)** or
- **SPE 634 - Collaboration/Cooperation in Schools 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **SPE 600 - Selected Topics 1-6 credit(s)** Practicum in Special Education
- **SPE 627 - Early Intervention for Children's Reading Problems 3 credit(s)**
- **SPE 609 - Teaching Children and Adolescents with Autism 3 credit(s)** or
- **SPE 644 - Significant Disabilities: Shifts in Paradigms and Practices 3 credit(s)**
- **SPE 705 - Practicum in Psychoeducational Evaluation and Planning for Exceptional Children 3-6 credit(s)**
- **SPE 724 - Inclusive Professional Practices in Special Education 3 credit(s)**
- **SPE 618 - Augmentation of Communication in the Inclusive Classroom 3 credit(s)** or
- **SPE 652 - Assistive Technologies for Integrating Students with Special Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** Inclusive Special Education 4 credit(s)

### Culminating Experience

In addition, students must submit a Peer-Reviewed Professional Teaching/Learning Portfolio for evaluation.

Total Credits Required: 32

### Also required:

Students who obtained their New York teaching certificate before DASA training was required must complete DASA training as part of degree requirements.

## Inclusive Special Education: Severe/

## Multiple Disabilities, MS

### Contact:

Gail Ensher, 150 Huntington Hall, 315-443-9650, glensher@syr.edu

### Program Features:

- This 31-credit program is designed for master's degree candidates who already have a NYS Initial Certificate for teaching students with disabilities, and seek to enhance their professional credentials by satisfying requirements for a NYS Annotation in Severe Disabilities as they earn their graduate degrees;
- Special emphases on working in inclusive classrooms, serving diverse student populations, using technology (including assistive technology), and achieving full professional practice as a teacher, researcher, and builder of practical theory;
- Flexible time options that allow full-time students to earn their degrees in 12-14 months and part-time students to proceed at a pace that satisfies their individual needs, with late afternoon classes.

## Admission

### Prerequisites:

Applicants to the program are expected to have completed requirements for the following before they begin the program:

- A bachelor's degree from an accredited institution;
- NYS initial certification in Students with Disabilities (Birth-2, 1-6, 5-9, or 7-12).

Admission is competitive. Decisions are based on grade point average (GPA), recommendations, field experience, and the stated goals of candidates. An undergraduate GPA of at least 3.0 is required, with exceptions considered on a case-by-case basis at the discretion of the faculty. An interview is required of each candidate (a telephone interview option is available for applicants from outside the Central New York area). Standard tests, such as the Graduate Record Examinations (GRE's) are not required.

## New York State Teacher Certification Information

Students who successfully complete this program qualify for an Annotation in Severe and Multiple

Disabilities and may also use this master's degree as a credential to meet academic requirements for additional professional certificates after initial certification. Students apply for the Annotation in Severe and Multiple Disabilities through the NYS Approved Program pathway to certification, i.e., with Syracuse University's verification of completion of this approved program. Applications for other New York State professional certificates are made by the student directly to the NYS Education Department through the Certificate Progression Pathway. Some teaching experience is required before the professional certificate is awarded. No additional NYS teacher examinations are required for the Annotation in Severe and Multiple Disabilities.

### Program Requirements:

#### Core Courses

- **SPE 613 - Developmental Therapy for Children with Disabilities 3 credit(s)**
- **SPE 618 - Augmentation of Communication in the Inclusive Classroom 3 credit(s)**
- **SPE 623 - Families of Students with Disabilities 3 credit(s)**
- **SPE 634 - Collaboration/Cooperation in Schools 3 credit(s)**
- **SPE 644 - Significant Disabilities: Shifts in Paradigms and Practices 3 credit(s)**
- **SPE 649 - Practicum in Significant Disabilities 1 credit(s)** (at grade level of certification)
- **SPE 653 - Positive Approaches to Challenging Behaviors 3 credit(s)** or
- **SPE 705 - Practicum in Psychoeducational Evaluation and Planning for Exceptional Children 3-6 credit(s)**
- **SPE 690 - Independent Study 1-6 credit(s)** (Final Capstone Program Project) 3 credits

### Capstone Project Requirement

The Capstone Project requires a review of research and analysis relating to research on a mutually agreed upon topic (by student and advisor). To complete the Capstone Project, students must register for SPE 690 - Independent Study (3 credits). The study must address at least one of three major proficiency areas in working with students with severe-to-profound disabilities: content knowledge, inclusive and culturally responsive pedagogy; or assessment of student learning. The research paper and supporting data

## GRADUATE COURSE CATALOG

collected during the course of a semester are presented as an in fulfillment of final program requirements.

### Elective Courses (Two Required) by Advisement (6 credits)

Examples include:

- **DSP 614 - Critical Issues in Dis/Ability and Inclusion 3 credit(s)**
- **DSP 688 - Social Policy and Disability 3 credit(s)**
- **COU 723 - Psychological, Social, and Cultural Aspects of Disability 3 credit(s)**
- **LAW 763 - Disability Law 3 credit(s)**
- **RED 626 - Early Intervention for Children's Reading Problems 3 credit(s)**
- **SPE 633 - The High-Risk Infant: Medical Treatment and Educational Interventions 3 credit(s)**

Total Credits Required: 31

## Instructional Design, Development and Evaluation, MS

### Contact:

Tiffany A. Koszalka, Chair, 330 Huntington Hall, 315-443-3703, takoszal@syr.edu

The Instructional Design, Development and Evaluation Department (IDD&E) offers a variety of programs to help students develop the competencies required to identify and evaluate learning and performance problems and to design, develop, and implement appropriate instructional solutions to these problems. Students develop competencies to conduct instructional analysis, make appropriate design decision, develop instructional materials, implement and evaluate instructional programs, and assess learning. The curriculum includes courses that blend soft technologies (thinking models and theories, strategic planning, IDD&E processes, interpersonal communications, and software) and hard technologies. Through practical projects, students develop competencies to design, create, implement, and evaluate non-technology and technology-supported instructional solutions for a variety of educational and professional settings. Certificates are offered in educational technology (15 credits), professional practice in educational technology (24 credits), and instructional design

fundamentals (12 credits); a master's of science degree is offered in Instructional Technology for NYS K-12 permanent certification; and M.S., C.A.S., and Ph.D. degrees in Instructional Design, Development and Evaluation, are offered.

### Major Requirements

Master's students in the Instructional Design, Development and Evaluation (IDD&E) program are required to take 10 core courses (30 credits) listed below:

- **IDE 552 - Digital Media Production 3 credit(s)**
- **IDE 611 - Technologies for Instructional Settings 3 credit(s)**
- **IDE 621 - Principles of Instruction and Learning 3 credit(s)**
- **IDE 631 - Instructional Design and Development I 3 credit(s)**
- **IDE 632 - Instructional Design and Development II 3 credit(s)**
- **IDE 641 - Techniques in Educational Evaluation 3 credit(s)**
- **IDE 712 - Analysis for Human Performance Technology Decisions 3 credit(s)**
- **IDE 761 - Strategies in Educational Project Management 3 credit(s)**
- **IDE 737 - Advanced Instructional Design 3 credit(s)**
- **IDE 772 - Educational Technology in International Settings 3 credit(s)**

### Culminating Master's Degree Portfolio

The program also requires students to complete a culminating master's degree portfolio for the degree.

## Instructional Technology, MS

### Contact

Tiffany A. Koszalka, Chair, 330 Huntington Hall, 315-443-3703, takoszal@syr.edu

This program is offered by the Instructional Design, Development and Evaluation Department (IDD&E). IDD&E offers a variety of programs to help students develop the skills required to identify and evaluate learning problems and to design and develop appropriate instructional solutions to these problems. Students develop

the competencies to apply instructional analysis, design and develop instructional materials, evaluate instructional programs, and assess learning. The curriculum includes teaching students about a variety of soft (process and communication) and hard technologies. Through practical projects, students develop competencies to design, create, implement, and evaluate technology-supported instructional solutions for a variety of educational and professional settings. Certificates in educational technology, professional practice in educational technology and instructional design foundations, as well as M.S., C.A.S., and Ph.D. degree programs are also offered.

### Major Requirements

The M.S. program in Instructional Technology (IT) is intended for students who have completed prior studies in one or more fields of Pre K-12 education and who already hold or are eligible for a New York State (NYS) initial teaching certificate. The 30 credit program will advance professional practice by supporting leadership in the integration of technology in learning and enhancement of teaching with technology. Upon successful completion of the IT master's program candidates will be eligible to apply for: New York State initial teacher certification as an Educational Technology Specialist (Pre K-12). This program also fulfills the requirement for a related master's degree for New York State professional certification in most areas of initial New York State teaching certification.

The following courses and practicums constitute the required curriculum for the MSIT.

### FALL Courses

- **IDE 552 - Digital Media Production 3 credit(s) (T)**
- **IDE 611 - Technologies for Instructional Settings 3 credit(s) (T)**
- **IDE 621 - Principles of Instruction and Learning 3 credit(s) (LRN/D/C)**
- **IDE 631 - Instructional Design and Development I 3 credit(s) (D/C)**
- **IDE 681 - Instructional Technology K-12 Practicum and Seminar I 1 credit(s) (PRAC)**

### SPRING Courses

- **IDE 641 - Techniques in Educational Evaluation 3 credit(s) (E/RCH)**
- **IDE 652 - Assistive Technologies for Integrating Students with Special Needs 3 credit(s) (T)**



## GRADUATE COURSE CATALOG

- **IDE 682 - Instructional Technology K-12 Practicum and Seminar II 1 credit(s)** (PRAC)
- **IDE 761 - Strategies in Educational Project Management 3 credit(s)** (LEAD)

### SUMMER Courses

- **IDE 656 - Computers as Critical Thinking Tools 3 credit(s)** (FULLY ONLINE) (T)
- **IDE 683 - Instructional Technology K-12 Practicum and Seminar III 1 credit(s)** (PRAC)

30 credits / minimum of 1 year to complete, including summer semester

(T=tech; LRN=learning; D=design; C=curriculum; E=evaluation; RCH=research; LEAD=leadership; PRAC=practicum)

### Additional Degree Requirements

- Present final Master's portfolio for review
- Complete DASA training
- Complete NYS competency test

## Literacy Education: Birth to Grade 12, MS

### Contact:

Rachel Brown, 200 Huntington Hall, 315-443-4755, rfbrown@syr.edu

Syracuse University's 30-credit master's program in literacy education, birth through grade 12, reflects the latest thinking about literacy instruction. The program aligns with the professional standards of the International Reading Association and the New York State Teaching and Learning Standards. Through face-to-face instruction, online experiences, and community-based projects, you will learn to provide culturally responsive literacy instruction in classrooms and in school-wide programs where all students are helped to learn at high levels. The literacy education birth-grade 12 program prepares you for a range of jobs in the field of literacy education. Our graduates become outstanding classroom teachers, literacy specialists, and literacy coaches; with additional preparation, some become faculty members in higher education, school administrators, state department administrators, professional development providers, and language arts consultants.

The program can be pursued full time over a year, in a fall-spring-summer sequence, or part time over several years.

### Program Requirements

Total Credits Required: 30

### Required Courses

### Required Seminars

To be eligible for this New York State teacher certification, students in the literacy education birth-12 program must complete or have completed training in:

- Child Abuse Prevention
- Safe and Healthy Learning Environments 0 credits
- Child Abduction Prevention
- Violence Prevention
- Fire and Arson Prevention
- Prevention of Alcohol, Tobacco, and Drug Abuse
- Highway Safety
- Dignity for all Students

Degree Awarded: M.S. in Literacy Education: Birth to Grade 12

## Mathematics Education Preparation 7-12, MS

### Contact

Joanna Masingila, 203 Carnegie, 315-443-1483, jomasing@syr.edu

The School of Education, in cooperation with the Department of Mathematics, in the College of Arts and Sciences, offers a preparation program leading to the degree of Master of Science in Mathematics Education: Preparation 7-12. The program prepares students to become mathematics educators in 21st century classrooms, who are proficient in five areas:

- Critical reflection and explanations of practice.
- Content knowledge.
- Inclusive and culturally relevant pedagogy.
- Assessment of student learning and development of mathematical literacy.
- Professional conduct and collaboration.

The preparation program is designed for students who have attained a bachelor's degree with a major in mathematics or its equivalent, and seek initial New York State certification to teach mathematics in grades 7-12. The program aligns with the professional standards of the National Council of Teachers of Mathematics and the New York State Teaching and Learning Standards. Full time study is required.

For those students who already have initial certification to teach grades 7-12 mathematics, the School of Education offers a program leading to the degree of Master of Science in Teaching and Curriculum. Students may have a concentration in mathematics education through this program, which is designed to support professional development for teachers and to enhance understanding of the theories and practices associated with teaching.

## Master's Degree Course Requirements

The program requires 30-38 credits, and may be completed in 15 months, beginning in May. Students who enter with education study equivalent to one of the courses below may have their syllabi reviewed for waiver of courses. In no case will graduate credits required be below 30.

(courses with \* include field experience)

### First Summer

- **EDU 606 - Understanding Learning and Teaching 4 credit(s)** \*
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s)** \*

### Fall - Candidacy Semester

- **SED 613 - Methods and Curriculum in Teaching 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** (3 credits) \*
- Mathematics Course (3 credits)
- Safe and Healthy Learning Environments (0 credit), 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.

### Spring - Standard Student Teaching Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** (6 credits) \*
- **SED 616 - Assessment & Data-Driven Instruction 3 credit(s)**

### Second Summer

- Mathematics course (3 credits)
- Mathematics education course (3 credits)

## Intensive Examination

A written master's degree intensive examination is also required.

## Liberal Arts Course requirements

The requirements of this program include several undergraduate science and distribution courses. It is not unusual that an applicant will have one or more of these courses left to take. These do not need to be completed before applying and may be taken at an institution other than Syracuse University. However, some of the courses need to be done before starting the graduate program, and all must be finished before a degree can be granted. We help prospective students identify appropriate courses.

Interested students should contact the Mathematics Education program coordinator as early as possible (including before applying) to have unofficial transcripts reviewed against the liberal arts requirements. This allows more time to enroll in needed courses.

## Mathematics Content

This program requires either a completed mathematics major of 33 or more credits, including 12 credits of calculus, 3 credits of linear algebra, and 3 credits of analysis; or a major in another area, with at least 30 credits of major-level mathematics courses (calculus and above) at entry, including 12 credits of calculus, 3 credits of linear algebra, and 3 credits of analysis. Both groups must have a total of 36 credits minimum of major-appropriate mathematics courses before a degree can be granted.

## Additional Liberal Arts Distribution study

(typically one from each, with no grade less than a C):

- Writing (course or equivalent)
- Natural Science
- Humanities (other than history or arts related)
- History
- Social Science (other than history or psychology)
- Artistic Expression (course or equivalent)
- Language other than English including American Sign Language (successful completion of high school language Level 3 or higher may be substituted).

## Media & Education, MA

### Contact

Dr. Barbara Applebaum Co-director, M&E; Chair, CFE, bappleba@syr.edu, 315-443-3343.

Michael Schoonmaker, Co-director, M&E; Chair, TRF, msschoon@syr.edu.

Administrative assistant for program, Maryann Barker, mabarker@syr.edu, 315-443-3343.

### Description

This program brings together the fields of media and education, and is offered jointly by the School of Education and the S.I. Newhouse School of Public Communications. Using broad definitions, we see media as an umbrella term for a range of forms that communicate to a public and we define education as occurring in both formal settings like schools and informal arenas like popular culture. This program addresses media production and analysis in relation to visual storytelling, combining an analysis of core issues in education with visual storytelling creation and production skills. The program will also speak to the cultural terrain of how people both make and make sense of media.

### Program Requirements

### The MA degree explores areas such as:

- Media Education: educating teachers of media, including media literacy educators, community college professors, or those with an interest in film including licensed/certified K-12 teachers, in short those who want to bring the art of visual storytelling to educational settings.
- Youth Development: addressing the field of education that takes place outside schools. It includes youth development community projects and youth media organizations.
- Media Literacy: teach future educators of media literacy from a cultural studies perspective, which includes a tripartite focus on the text, the audience, and the political economy.
- Leadership in the Field: propelling some students to move on to doctoral studies and further research in the academy.

### Admission:

The MA program will follow Syracuse University's general guidelines for admission of graduate study. That is, applicants must present respectable

evidence of excellence with depth and dimension in their records. The review committee expects to admit students with an exemplary transcript, extraordinary letters of recommendation, a personal statement that reflects potential growth, and a demonstrated experience in education and/or media studies. Also, we will use the "Like-Live" interface to collect unrehearsed video responses to questions about goals and qualifications in relation to media and education.

### Financial Support:

The program will draw upon traditional graduate assistantship awards and scholarships. Furthermore, numerous scholarships are awarded to students whose backgrounds may have placed them at a disadvantage in academic and professional fields.

### Learning Outcomes:

The program has three goals:

- To teach students how to understand, interpret and demystify media and popular culture.
- To have them create media in relation to education, broadly conceived.
- To understand the social and political contexts of media in relation to education.

### Requirements:

Note: This program requires full time study except for the second summer session which requires only 3 credits.

### First summer - Summer Session II Summer Institute (7 Credits):

- **TRF 655 - Screenwriting and Production Workshop 3 credit(s)**
- **EDU 603 - Introduction to Qualitative Research 3 credit(s)**
- **M&E 610 - Media and Education Master's Colloquium 1 credit(s)**

This colloquium will create community and introduce students to legal, cultural and institutional issues in this field.

### Fall Semester (13 Credits):

The visual media electives expose students to both old and new visual media, focusing in both courses on storytelling skills. The educational courses engage students on how educational projects are culturally situated. The colloquium during this semester emphasizes the development of an idea for the capstone project.

- **M&E 610 - Media and Education Master's Colloquium 1 credit(s)**

## GRADUATE COURSE CATALOG

Cultural Foundations Elective - (3 credits) One course from:

- **CFE 605 - Race, Philosophy and Education 3 credit(s)**
- **CFE 614 - Critical Issues in Dis/Ability and Inclusion 3 credit(s)**
- **CFE 631 - Introduction to Sociology and Anthropology of Education 3 credit(s)**
- **CFE 776 - Gender, Education & Culture 3 credit(s)**

Visual Media Elective I - (3 credits) One course from:

- **COM 600 - Selected Topics 1-6 credit(s)** (section title) Social Media: Theory and Practice
- **ICC 565 - Designing Interactivity 3 credit(s)**
- **TRF 642 - Television Production Workshop 3 credit(s)**
- **TRF 648 - Producing Radio: On Air to Online 3 credit(s)**
- **TRF 651 - Filmmaking 3 credit(s)**
- **TRF 653 - Short-form Production 3 credit(s)**
- **TRF 654 - Music Recording 3 credit(s)**
- **TRF 656 - Sound for Picture 3 credit(s)**
- **TRF 659 - Documentary Production 3 credit(s)**

Education Elective - (3 credits) One course from:

- **EDU 610 - The American School 3 credit(s)**
- **CFE 621 - History of Education in the United States 3 credit(s)**
- **CFE 640 - Inequality and Intergroup Relations in Education 3 credit(s)**
- **CFE 775 - Gender, Sexuality, and Disability 3 credit(s)**
- **DSP 930 - Sociology and Anthropology of Education: Seminar in Special Topics 3 credit(s)**
- **IDE 651 - Message Design for Digital Media 3 credit(s)**
- **IDE 652 - Assistive Technologies for Integrating Students with Special Needs 3 credit(s)**
- **RED 607 - Issues in Multicultural**

**Literacy 3 credit(s)**

- **EDU 778 - Narrative Inquiry in Research and Creative Practice 3 credit(s)**

Public Communications Elective - (3 credits) One course from:

NOTE: Students are invited to petition public communications electives not on this list along with a rationale for using them in their program of study.

- **COM 646 - Media and Diversity 3 credit(s)**
- **COM 755 - Communications Theory 3 credit(s)**
- **TRF 640 - Topics in Critical and Historical Perspectives 3 credit(s)**
- **TRF 683 - Communications Industry Frontiers 3 credit(s)**

Spring Semester (13 Credits):

- **CFE 662 - Youth, Schooling and Popular Culture 3 credit(s)**
  - **M&E 610 - Media and Education Master's Colloquium 1 credit(s)**
- Spring semester colloquium focuses on the research and design of the summer capstone projects.
- **M&E 611 - Proseminar in Media and Education 3 credit(s)**

Pro-seminar covers the perspectives of Media and Education professionals. Students will develop the theoretical groundwork and documentation for their capstone projects. This covers legal issues in media education including copyright issues related to use of media in schools and education law relating to media and education

Culture Study Elective - (3 credits) One course from:

- **ANT 672 - Language, Culture, and Society 3 credit(s)**
- **PSC 753 - International Political Economy 3 credit(s)**
- **TRF 530 - Popular Culture Studies 3 credit(s)**
- **WGS 652 - Feminism and Postcolonial Studies 3 credit(s)**
- **SOC 880 - Seminar: Selected Areas of Social Organization and Change 3 credit(s)**

(approved sections, for example, section title: Sociology of Education)

- **ANT 553 - Women and Social Change 3**

**credit(s)**

Visual Media Elective II - (3 credits) One course from:

For their visual media elective, students may enroll in any of the courses listed under Visual Media Elective-I listed above, or the following courses if they have the necessary prerequisite.

- **TRF 600 - Selected Topics 1-6 credit(s)** Section title: Human-Computer Interaction
- **TRF 662 - Advanced TV Production 3 credit(s)**
- **TRF 668 - Advanced Audio 3 credit(s)**
- **TRF 669 - Advanced Filmmaking 3 credit(s)**

Summer Session I Finish (3 Credits):

- **M&E 689 - Media & Education Capstone 3 credit(s)**

Total Credits: 36

Transfer Credit:

Decisions made on a case-by-case basis up to a maximum of 6 credits.

Satisfactory Progress:

3.0 (B or better) average in all program courses.

## Music Education Preparation, MS

### Contact:

Colleen Reynolds, 301 Crouse College, 315-443-4309, cmreyn01@syr.edu

Elisa Macedo Dekaney, coordinator, music education, 109 Crouse College, 315-443-4854, emdekane@syr.edu

### Description

The Music Education Program at Syracuse University is consistent in its mission to provide an environment of excellence where students can develop the understanding and skills necessary to become competent, independent teachers of music. Our program provides students with opportunities to nurture and develop optimal teaching competencies and artistry and musicianship, as well as philosophical, theoretical, and historical perspectives of music and music education through research and reflective practice.

The School of Education, in cooperation with the

## GRADUATE COURSE CATALOG

Setnor School of Music in the College of Visual and Performing Arts, offers a preparation program leading to the M.S. degree in music education. The program prepares students to become music educators proficient in five areas:

- critical reflection and explanation of practice
- content knowledge
- inclusive and culturally responsive pedagogy
- assessment of student learning and
- professional conduct and collaboration.

This degree program provides meaningful opportunities for professional enhancement through comprehensive practice experiences in the field, exposure to current instructional technology with applications to music education, thoughtful examination of music research, and encouragement of continuing personal artistic growth. By providing knowledge and understanding of inclusive and diverse environments, and striving to promote a developed awareness of individual needs and social justice, we prepare our graduates to enter the field as music educators capable of creating learning environments that ensure successful outcomes for all students.

### Program Features:

- Prepares students for New York State (NYS) initial certification as music teachers at all grade levels as they earn master's degrees within one and one-half to two years;
- A 47-credit minimus program designed for full-time study, that exposes students to cutting-edge ideas in education in courses taught by faculty specialists, and offers students opportunities to expand content knowledge and develop artistic abilities through graduate music courses and performance events;
- Special emphases on these areas: serving diverse student populations, using latest technologies to promote active learning; developing skills in assessing student learning; and developing a knowledge of music for effective teaching and performance;
- Five field placements, allowing each candidate to learn from experiences in urban, rural, and suburban school settings, from contact with a variety of teaching professionals, and by working with students of diverse backgrounds and abilities;
- Professional development opportunities through shared experiences in core courses with a cohort of music education students as well as students from other secondary programs;
- Participation in the Music Educators Academy, whose weekly meetings bring candidates together with area teachers, educational

professionals, and SU faculty and staff to share professional development opportunities and;

- A music education faculty whose location in the Setnor School of Music affords opportunities for formal and informal interactions, and for continued study with accomplished musicians from diverse fields of music.

### The M.S. Teacher Preparation Program of study includes the following:

- One Graduate Music History Course 3 credit(s)
- Additional Graduate Education Course
- Graduate Music Education Method Courses 9 credit(s)
- **MUE 610 - Field Experience in Music Education 1-2 credit(s)** (1 credit required)
- **MUE 615 - Introduction to Research in Music 3 credit(s)**
- **MUE 616 - Psychological and Sociological Aspects of Music 3 credit(s)** or
- **MUE 618 - Current Problems in Music Education 3 credit(s)**
- **MUE 735 - Choral Rehearsal Techniques 2-3 credit(s)** (3 credits required) or
- **MUE 737 - Instrumental Rehearsal Techniques in Music Education 2-3 credit(s)** (3 credits required)
- **MTC 646 - Advanced Tonal Analysis 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)**
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- Safe and Healthy Learning Environments (0 credit), 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.

### Additional Degree Requirements

The requirements of this program include several undergraduate liberal arts distribution courses. Although some may have been completed at the time of application, it is not unusual for students to have one or more of these left to complete with appropriate grades, before a master's degree can

be granted. These include:

- A writing course or equivalent
- A social science course other than history or psychology
- A humanities course that is not arts related (can include history)
- One mathematics course
- One natural sciences course
- 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.

Total Minimum Credits: 47

Degree Awarded: M.S. in Teacher Preparation

## Music Education Professional Certification, MMus

### Contact:

Elisa Macedo Dekaney, coordinator, music education, 109 Crouse College, 315-443-4854, emdekane@syr.edu

Colleen Reynolds, 301 Crouse College, 315-443-4309, cmreyn01@syr.edu

## Description

The music education graduate degree program is designed for students who will have met all requirements for a New York State Music teaching certificate at the time of entry into the program. This one-year music education professional certification program (Master of Music-M.Mus degree) provides an environment of excellence under which one can continue to develop the understanding and skills necessary to become a competent, independent teacher of music.

The Master of Music (M.Mus) in Music Education allows for the concentration of graduate studies to focus on music and music education coursework with the possibility of degree completion within a one-year period (including some summer study).

## Program Requirements

### Required Courses

- **MUE 615 - Introduction to Research in Music 3 credit(s)**

## GRADUATE COURSE CATALOG

- **MUE 616 - Psychological and Sociological Aspects of Music 3 credit(s)**
- **MUE 618 - Current Problems in Music Education 3 credit(s)**
- **MTC 646 - Advanced Tonal Analysis 3 credit(s)**
- One Graduate Music History Course 3 credits
- One Graduate Education Course 3 credits
- Graduate Music Education Courses 6 credits
- Graduate Music Courses 9 credits

### Additional Degree Requirements

- Students must complete either a master's thesis or a comprehensive evaluation examination.

Students who obtained their New York teaching certificate before DASA training was required must complete DASA training as part of degree requirements.

Total Credits Required: 33

## Music Education Professional Certification, MS

### Contact:

Elisa Macedo Dekaney, coordinator, music education, 109 Crouse College, 315-443-4854, emdekane@syr.edu

Colleen Reynolds, 301 Crouse College, 315-443-4309, cmreyn01@syr.edu

### Description

The music education graduate degree program is designed for students who will have met all requirements for a New York State Music teaching certificate at the time of entry into the program. This one-year music education professional certification program (Master of Music-M.Mus degree) provides an environment of excellence under which one can continue to develop the understanding and skills necessary to become a competent, independent teacher of music.

The Master of Science (M.S.) in Music Education allows for the concentration of graduate studies to focus on education and music education coursework with the possibility of degree completion within a one-year period (including some summer study).

### Program Requirements

### Required Courses

- **MUE 615 - Introduction to Research in Music 3 credit(s)**
- **MUE 616 - Psychological and Sociological Aspects of Music 3 credit(s)**
- **MUE 618 - Current Problems in Music Education 3 credit(s)**
- **MTC 646 - Advanced Tonal Analysis 3 credit(s)**
- One Graduate Music History Course 3 credits
- Three Graduate Education Courses 9 credits
- Graduate Music Education Courses 6 credits
- Graduate Music Course 3 credits

### Additional Degree Requirements

- In addition students must complete either a master's thesis or a comprehensive evaluation examination.

Students who obtained their New York teaching certificate before DASA training was required must complete DASA training as part of degree requirements.

Total Credits Required: 33

## School Counseling, MS

### Contact

Melissa Luke, Ph.D., 259 Huntington Hall, 315-443-2266, mmluke@syr.edu

### Major Requirements

The Master of Science in School Counseling prepares students to work with children of all ages in urban, rural and suburban K-12 school settings. Beginning with their first courses, students gain practical hands-on experiences that prepare them for their clinical placements in schools. Students work closely with their advisor to develop a program of study that meets their interests and specific career goals. Through two unique school counseling specialty courses, students acquire the knowledge and abilities necessary to implement a comprehensive, developmental school counseling program that includes individual and group counseling, large group classroom guidance, advisement and consultative services, as well as systemic support skills. Students gain the tools necessary to be effective professional school counselors and change agents, so they can help to meet the needs of every student. Graduates from our program meet the requirements for provisional certification as a school counselor in

New York State and are employed in schools as:

- School Counselors
- Directors of Guidance
- Career Center Counselors
- Admissions Counselors
- Support Service Counselors
- Alcohol-Drug Abuse Prevention Education Program (ADAPEP) Counselors
- Student Assistance Counselors
- Family Support Counselors

The Department of Counseling and Human Services has been a pioneer in training highly skilled practitioners and leaders in a wide range of counseling settings. Syracuse University's programs are nationally accredited and can lead to national certification or State Certification in School Counseling or Licensure as a Clinical Mental Health Counselor.

Programs include extensive fieldwork opportunities in which students gain hands-on experience working with students and clients in a wide range of counseling and educational settings. Students work closely with their advisor, and the fieldwork coordinator to identify settings that meet their individual interests and career goals. The faculty is nationally recognized for their leadership in the profession and all classes are taught by skilled experts and experienced clinicians.

The faculty is deeply committed to the growth and development of their students; faculty work closely with both our master's and doctoral students. Students are trained in the most current information in counseling and provided the opportunity to develop their skills and succeed in their chosen area of specialization. The department's goal is to prepare national leaders in counseling. It seeks to develop a diverse group of professionals who will excel in knowledge, skills, commitment, and service in a wide range of educational and community settings.

### S.U. Re-Accredited through 2016:

After an extensive review of the Counseling and Human Services Programs, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) recently announced that Syracuse University's programs have met all expectations, and granted us the full eight year accreditation period for all of our accredited master's degree programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling), as well as our Counselor Education Ph.D. program. This means each of these programs will be accredited by CACREP until 2016. This decision is a testament to the quality education offered here at Syracuse University, and a signal of support for the work that is done here.

## Science/Biology Education: Preparation (7-12), MS

### Contact:

John W. Tillotson, 112 Heroy Geology Lab, 315-443-9137, jwtilot@syr.edu

### Description

A master's degree program in science/biology education is available for those with no education background seeking New York State teacher certification for grades 7-12 (preparation program). Our certification programs combine multiple clinically rich field experiences with campus-based coursework emphasizing theoretical and practical knowledge in research-based science teaching and learning. Faculty members are dual professors in the Teaching and Leadership Program in the School of Education and in the Department of Science Teaching in the College of Arts and Sciences.

The multidisciplinary nature of the department gives students numerous opportunities to interact with researchers in education in the natural sciences through collaborative projects and programs in the School of Education, the College of Arts and Sciences, and the State University of New York College of Environmental Science and Forestry. For decades, the department has been a national leader in promoting science literacy by advancing the knowledge base for effective science teaching and learning at all levels of education. We are well known for our commitment to both components of a seamless tradition: inquiry-based, student-centered science teaching and cutting edge research in pursuit of effective educational practices. We subscribe to the guiding principles that underlie the Next Generation Science Standards::

1. children are born investigators;
2. a focus on core scientific ideas and practices;
3. understanding develops over time;
4. science requires both knowledge and practice;
5. science education should connect students' interest and experiences;
6. all students should be provided with equitable opportunities to learn science and become engaged in science practices.

The program prepares students to become science educators in 21st century classrooms, who are proficient in five areas:

- Critical reflection and explanations of practice.
- Content knowledge.

- Inclusive and culturally relevant pedagogy.
- Assessment of student learning and development of scientific literacy.
- Professional conduct and collaboration.

The M.S. in Science/Biology Education, in combination with the science and liberal arts distribution credits described below, meets the academic requirements for New York State initial teacher certification in Biology 7-12. There are also application, tests, and other requirements.

### Master's Degree Course Requirements

The program requires 36 credits, and may be completed in 15 months, beginning in May. However, students who enter with education study equivalent to one of the courses below may have their syllabi reviewed for waiver of courses. In no case will fewer than 30 graduate credits be required.

#### First Summer

(courses with \* include field experience)

- **EDU 606 - Understanding Learning and Teaching 4 credit(s) \***
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s) \***
- **SCE 718 - Curriculum Problems in Science 3 credit(s)** or
- Science Education Course (3 credits)

#### Fall - Candidacy Semester

- **SCE 613 - Methods and Curriculum in Teaching Science 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** (3 credits) \*
- Safe and Healthy Learning Environments (0 credit), 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.

#### Spring - Standard Student Teaching Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** (6 credits) \*
- **SCE 616 - Assessment & Data-Driven Instruction 3 credit(s)**

#### Second Summer

- **SCE 614 - The Nature of Science in Science Education 3 credit(s)**
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- Science research experience (may be completed in an earlier term) 1 credit

#### Intensive Examination

A master's degree intensive examination is also required.

#### Liberal Arts Course requirements

The requirements of this program include several undergraduate science and liberal arts distribution courses. It is not unusual that an applicant will have one or more of these courses left to take. These do not need to be completed before applying and may be taken at an institution other than Syracuse University. However, some of the courses need to be done before starting the graduate program, and all must be finished before a degree can be granted. We help prospective students identify appropriate courses.

Interested students should contact the Science Teaching Department as early as possible (including before applying) to have unofficial transcripts reviewed against the liberal arts requirements. This allows more time to enroll in needed courses.

#### Science Content

This program requires: A major in biology or chemistry or earth sciences or physics; OR by the end of the MS program, a minimum of 30 semester hour credits in the science area in which certification is sought, with at least 18 credits beyond the introductory level, including at least two laboratory courses, with one laboratory beyond the introductory level. Courses from departments other than these science areas (e.g., engineering science) will be evaluated on an individual basis for appropriate science content to be used toward the 30 credits. A sufficient amount of science must be completed before beginning the program. Appropriate science content courses taken during the program may count toward the minimum requirement. Specific courses that must be included for those without a science major are the following:

Students without a biology major seeking biology certification must have completed coursework with some attention to three areas: organismic biology, genetics/molecular/cell biology; population biology/ecology.

Students without a chemistry major seeking chemistry certification must have completed courses with some attention to inorganic, organic,

## GRADUATE COURSE CATALOG

analytical, and physical chemistry - including engineering.

Students without a geology or earth sciences major seeking earth science certification must have completed courses with some attention to earth history, paleontology, mineralogy, structural geology, hydrology, and glacial geology. Earth science courses may include courses in geology, meteorology, and astronomy including applied courses in subjects such as soils or limnology.

Students without a physics major seeking physics certification must have completed courses with some attention to mechanics, electricity, thermodynamics, and modern physics such as relativity, kinetic theory, quantum theory, etc. Other courses might include such topics as optics, circuits, or particle physics.

### Liberal Arts Distribution courses

(one each, with no grade less than a C)

- Writing (course or equivalent)
- Mathematics
- History
- Social Science (other than history or psychology)
- Artistic Expression (course or equivalent)
- Humanities other than history or artistic expression
- Language other than English including American Sign Language (Completion of a high school Foreign Language Level 3 or higher may be substituted.)

## Science/Chemistry Education: Preparation (7-12), MS

### Contact:

John W. Tillotson, 112 Heroy Geology Lab, 315-443-9137, jwtilot@syr.edu

### Description

A master's degree program in science/chemistry education is available for those with no education background seeking New York State teacher certification for grades 7-12 (preparation program). Our certification programs combine multiple clinically rich field experiences with campus-based coursework emphasizing theoretical and practical knowledge in research-based science teaching and learning. Faculty members are dual professors in the Teaching and Leadership Program in the School of Education and in the Department of Science Teaching in the

College of Arts and Sciences.

The multidisciplinary nature of the department gives students numerous opportunities to interact with researchers in education in the natural sciences through collaborative projects and programs in the School of Education, the College of Arts and Sciences, and the State University of New York College of Environmental Science and Forestry. For decades, the department has been a national leader in promoting science literacy by advancing the knowledge base for effective science teaching and learning at all levels of education. We are well known for our commitment to both components of a seamless tradition: inquiry-based, student-centered science teaching and cutting edge research in pursuit of effective educational practices. We subscribe to the guiding principles that underlie the Next Generation Science Standards::

1. children are born investigators;
2. a focus on core scientific ideas and practices;
3. understanding develops over time;
4. science requires both knowledge and practice;
5. science education should connect students' interest and experiences;
6. all students should be provided with equitable opportunities to learn science and become engaged in science practices.

The program prepares students to become science educators in 21st century classrooms, who are proficient in five areas:

- Critical reflection and explanations of practice.
- Content knowledge.
- Inclusive and culturally relevant pedagogy.
- Assessment of student learning and development of scientific literacy.
- Professional conduct and collaboration.

The M.S. in Science/Chemistry Education, in combination with the science and liberal arts distribution credits described below, meets the academic requirements for New York State initial teacher certification in Chemistry 7-12. There are also application, tests, and other requirements.

### Master's Degree Course Requirements

The program requires 36 credits, and may be completed in 15 months, beginning in May. However, students who enter with education study equivalent to one of the courses below may have their syllabi reviewed for waiver of courses. In no case will fewer than 30 graduate credits be required.

#### First Summer

(courses with \* include field experience)

- **EDU 606 - Understanding Learning and Teaching 4 credit(s) \***
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s) \***
- **SCE 718 - Curriculum Problems in Science 3 credit(s)** or
- Science Education Course (3 credits)

#### Fall - Candidacy Semester

- **SCE 613 - Methods and Curriculum in Teaching Science 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** (3 credits) \*
- Safe and Healthy Learning Environments (0 credit), 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.

#### Spring - Standard Student Teaching Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** (6 credits) \*
- **SCE 616 - Assessment & Data-Driven Instruction 3 credit(s)**

#### Second Summer

- **SCE 614 - The Nature of Science in Science Education 3 credit(s)**
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- Science research experience (may be completed in an earlier term) 1 credit

#### Intensive Examination

A master's degree intensive examination is also required.

#### Liberal Arts Course requirements

The requirements of this program include several undergraduate science and liberal arts distribution courses. It is not unusual that an applicant will have one or more of these courses left to take. These do not need to be completed before applying and may be taken at an institution other than Syracuse University. However, some of the courses need to be done before starting the graduate program, and all must be finished before

## GRADUATE COURSE CATALOG

a degree can be granted. We help prospective students identify appropriate courses.

Interested students should contact the Science Teaching Department as early as possible (including before applying) to have unofficial transcripts reviewed against the liberal arts requirements. This allows more time to enroll in needed courses.

### Science Content

This program requires: A major in biology or chemistry or earth sciences or physics; OR by the end of the MS program, a minimum of 30 semester hour credits in the science area in which certification is sought, with at least 18 credits beyond the introductory level, including at least two laboratory courses, with one laboratory beyond the introductory level. Courses from departments other than these science areas (e.g., engineering science) will be evaluated on an individual basis for appropriate science content to be used toward the 30 credits. A sufficient amount of science must be completed before beginning the program. Appropriate science content courses taken during the program may count toward the minimum requirement. Specific courses that must be included for those without a science major are the following:

Students without a biology major seeking biology certification must have completed coursework with some attention to three areas: organismic biology, genetics/molecular/cell biology; population biology/ecology.

Students without a chemistry major seeking chemistry certification must have completed courses with some attention to inorganic, organic, analytical, and physical chemistry - including engineering.

Students without a geology or earth sciences major seeking earth science certification must have completed courses with some attention to earth history, paleontology, mineralogy, structural geology, hydrology, and glacial geology. Earth science courses may include courses in geology, meteorology, and astronomy including applied courses in subjects such as soils or limnology.

Students without a physics major seeking physics certification must have completed courses with some attention to mechanics, electricity, thermodynamics, and modern physics such as relativity, kinetic theory, quantum theory, etc. Other courses might include such topics as optics, circuits, or particle physics.

### Liberal Arts Distribution courses

(one each, with no grade less than a C)

- Writing (course or equivalent)
- Mathematics

- History
- Social Science (other than history or psychology)
- Artistic Expression (course or equivalent)
- Humanities other than history or artistic expression
- Language other than English including American Sign Language (Completion of a high school Foreign Language Level 3 or higher may be substituted.)

### Science/Earth Science Education: Preparation (7-12), MS

#### Contact:

John W. Tillotson, 112 Heroy Geology Lab, 315-443-9137, jwtilot@syr.edu

#### Description

A master's degree program in science/earth science education is available for those with no education background seeking New York State teacher certification for grades 7-12 (preparation program). Our certification programs combine multiple clinically rich field experiences with campus-based coursework emphasizing theoretical and practical knowledge in research-based science teaching and learning. Faculty members are dual professors in the Teaching and Leadership Program in the School of Education and in the Department of Science Teaching in the College of Arts and Sciences.

The multidisciplinary nature of the department gives students numerous opportunities to interact with researchers in education in the natural sciences through collaborative projects and programs in the School of Education, the College of Arts and Sciences, and the State University of New York College of Environmental Science and Forestry. For decades, the department has been a national leader in promoting science literacy by advancing the knowledge base for effective science teaching and learning at all levels of education. We are well known for our commitment to both components of a seamless tradition: inquiry-based, student-centered science teaching and cutting edge research in pursuit of effective educational practices. We subscribe to the guiding principles that underlie the Next Generation Science Standards::

1. children are born investigators;
2. a focus on core scientific ideas and practices;
3. understanding develops over time;
4. science requires both knowledge and practice;

5. science education should connect students' interest and experiences;
6. all students should be provided with equitable opportunities to learn science and become engaged in science practices.

The program prepares students to become science educators in 21st century classrooms, who are proficient in five areas:

- Critical reflection and explanations of practice.
- Content knowledge.
- Inclusive and culturally relevant pedagogy.
- Assessment of student learning and development of scientific literacy.
- Professional conduct and collaboration.

The M.S. in Science/Earth Science Education, in combination with the science and liberal arts distribution credits described below, meets the academic requirements for New York State initial teacher certification in Biology 7-12. There are also application, tests, and other requirements.

### Master's Degree Course Requirements

The program requires 36 credits, and may be completed in 15 months, beginning in May. However, students who enter with education study equivalent to one of the courses below may have their syllabi reviewed for waiver of courses. In no case will fewer than 30 graduate credits be required.

#### First Summer

(courses with \* include field experience)

- **EDU 606 - Understanding Learning and Teaching 4 credit(s) \***
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s) \***
- **SCE 718 - Curriculum Problems in Science 3 credit(s)** or
- Science Education Course (3 credits)

#### Fall - Candidacy Semester

- **SCE 613 - Methods and Curriculum in Teaching Science 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** (3 credits) \*
- Safe and Healthy Learning Environments (0 credit), which includes the following topics: Identifying/reporting child abuse, violence prevention, child abduction prevention, highway/general safety, alcohol/drug/tobacco



## GRADUATE COURSE CATALOG

prevention, fire and arson prevention, and training related to the Dignity for All Students (DASA) Act.

### Spring - Standard Student Teaching Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** (6 credits) \*
- **SCE 616 - Assessment & Data-Driven Instruction 3 credit(s)**

### Second Summer

- **SCE 614 - The Nature of Science in Science Education 3 credit(s)**
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- Science research experience (may be completed in an earlier term) 1 credit

### Intensive Examination

[A master's degree intensive examination is also required.](#)

### Liberal Arts Course requirements

The requirements of this program include several undergraduate science and liberal arts distribution courses. It is not unusual that an applicant will have one or more of these courses left to take. These do not need to be completed before applying and may be taken at an institution other than Syracuse University. However, some of the courses need to be done before starting the graduate program, and all must be finished before a degree can be granted. We help prospective students identify appropriate courses.

Interested students should contact the Science Teaching Department as early as possible (including before applying) to have unofficial transcripts reviewed against the liberal arts requirements. This allows more time to enroll in needed courses.

### Science Content

This program requires: A major in biology or chemistry or earth sciences or physics; OR by the end of the MS program, a minimum of 30 semester hour credits in the science area in which certification is sought, with at least 18 credits beyond the introductory level, including at least two laboratory courses, with one laboratory beyond the introductory level. Courses from departments other than these science areas (e.g., engineering science) will be evaluated on an individual basis for appropriate science content to be used toward the 30 credits. A sufficient amount of science must be completed before beginning the program. Appropriate science

content courses taken during the program may count toward the minimum requirement. Specific courses that must be included for those without a science major are the following:

Students without a biology major seeking biology certification must have completed coursework with some attention to three areas: organismic biology, genetics/molecular/cell biology; population biology/ecology.

Students without a chemistry major seeking chemistry certification must have completed courses with some attention to inorganic, organic, analytical, and physical chemistry - including engineering.

Students without a geology or earth sciences major seeking earth science certification must have completed courses with some attention to earth history, paleontology, mineralogy, structural geology, hydrology, and glacial geology. Earth science courses may include courses in geology, meteorology, and astronomy including applied courses in subjects such as soils or limnology.

Students without a physics major seeking physics certification must have completed courses with some attention to mechanics, electricity, thermodynamics, and modern physics such as relativity, kinetic theory, quantum theory, etc. Other courses might include such topics as optics, circuits, or particle physics.

### Liberal Arts Distribution courses

(one each, with no grade less than a C)

- Writing (course or equivalent)
- Mathematics
- History
- Social Science (other than history or psychology)
- Artistic Expression (course or equivalent)
- Humanities other than history or artistic expression
- Language other than English including American Sign Language (Completion of a high school Foreign Language Level 3 or higher may be substituted.)

### Contact:

John W. Tillotson, 112 Heroy Geology Lab, 315-443-9137, jwtilot@syr.edu

### Description

A master's degree program in science/physics education is available for those with no education background seeking New York State teacher certification for grades 7-12 (preparation program). Our certification programs combine

multiple clinically rich field experiences with campus-based coursework emphasizing theoretical and practical knowledge in research-based science teaching and learning. Faculty members are dual professors in the Teaching and Leadership Program in the School of Education and in the Department of Science Teaching in the College of Arts and Sciences.

The multidisciplinary nature of the department gives students numerous opportunities to interact with researchers in education in the natural sciences through collaborative projects and programs in the School of Education, the College of Arts and Sciences, and the State University of New York College of Environmental Science and Forestry. For decades, the department has been a national leader in promoting science literacy by advancing the knowledge base for effective science teaching and learning at all levels of education. We are well known for our commitment to both components of a seamless tradition: inquiry-based, student-centered science teaching and cutting edge research in pursuit of effective educational practices. We subscribe to the guiding principles that underlie the Next Generation Science Standards:

1. children are born investigators;
2. a focus on core scientific ideas and practices;
3. understanding develops over time;
4. science requires both knowledge and practice;
5. science education should connect students' interest and experiences;
6. all students should be provided with equitable opportunities to learn science and become engaged in science practices.

The program prepares students to become science educators in 21st century classrooms, who are proficient in five areas:

- Critical reflection and explanations of practice.
- Content knowledge.
- Inclusive and culturally relevant pedagogy.
- Assessment of student learning and development of scientific literacy.
- Professional conduct and collaboration.

The M.S. in Science/Physics Education, in combination with the science and liberal arts distribution credits described below, meets the academic requirements for New York State initial teacher certification in Biology 7-12. There are also application, tests, and other requirements.

### Master's Degree Course Requirements

The program requires 36 credits, and may be completed in 15 months, beginning in May. However, students who enter with education study

## GRADUATE COURSE CATALOG

equivalent to one of the courses below may have their syllabi reviewed for waiver of courses. In no case will fewer than 30 graduate credits be required.

### First Summer

(courses with \* include field experience)

- **EDU 606 - Understanding Learning and Teaching 4 credit(s) \***
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s) \***
- **SCE 718 - Curriculum Problems in Science 3 credit(s)** or
- Science Education Course (3 credits)

### Fall - Candidacy Semester

- **SCE 613 - Methods and Curriculum in Teaching Science 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** (3 credits) \*
- Safe and Healthy Learning Environments (0 credit), 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.

### Spring - Standard Student Teaching Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** (6 credits) \*
- **SCE 616 - Assessment & Data-Driven Instruction 3 credit(s)**

### Second Summer

- **SCE 614 - The Nature of Science in Science Education 3 credit(s)**
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- Science research experience (may be completed in an earlier term) 1 credit

### Intensive Examination

[A master's degree intensive examination is also required.](#)

### Liberal Arts Course requirements

The requirements of this program include several undergraduate science and liberal arts distribution

courses. It is not unusual that an applicant will have one or more of these courses left to take. These do not need to be completed before applying and may be taken at an institution other than Syracuse University. However, some of the courses need to be done before starting the graduate program, and all must be finished before a degree can be granted. We help prospective students identify appropriate courses.

Interested students should contact the Science Teaching Department as early as possible (including before applying) to have unofficial transcripts reviewed against the liberal arts requirements. This allows more time to enroll in needed courses.

### Science Content

This program requires: A major in biology or chemistry or earth sciences or physics; OR by the end of the MS program, a minimum of 30 semester hour credits in the science area in which certification is sought, with at least 18 credits beyond the introductory level, including at least two laboratory courses, with one laboratory beyond the introductory level. Courses from departments other than these science areas (e.g., engineering science) will be evaluated on an individual basis for appropriate science content to be used toward the 30 credits. A sufficient amount of science must be completed before beginning the program. Appropriate science content courses taken during the program may count toward the minimum requirement. Specific courses that must be included for those without a science major are the following:

Students without a biology major seeking biology certification must have completed coursework with some attention to three areas: organismic biology, genetics/molecular/cell biology; population biology/ecology.

Students without a chemistry major seeking chemistry certification must have completed courses with some attention to inorganic, organic, analytical, and physical chemistry - including engineering.

Students without a geology or earth sciences major seeking earth science certification must have completed courses with some attention to earth history, paleontology, mineralogy, structural geology, hydrology, and glacial geology. Earth science courses may include courses in geology, meteorology, and astronomy including applied courses in subjects such as soils or limnology.

Students without a physics major seeking physics certification must have completed courses with some attention to mechanics, electricity, thermodynamics, and modern physics such as relativity, kinetic theory, quantum theory, etc. Other courses might include such topics as optics, circuits, or particle physics.

### Liberal Arts Distribution courses

(one each, with no grade less than a C)

- Writing (course or equivalent)
- Mathematics
- History
- Social Science (other than history or psychology)
- Artistic Expression (course or equivalent)
- Humanities other than history or artistic expression
- Language other than English including American Sign Language (Completion of a high school Foreign Language Level 3 or higher may be substituted.)

### Social Studies Education: Preparation 7-12, MS

### Contact:

Jeffery A. Mangram, 154 Huntington Hall, 315-443-9077, jamangra@syr.edu

### Description

The M.S. degree in Social Studies Education: Preparation 7-12 offers:

- The opportunity for those holding a bachelor's degree with the appropriate social science and other liberal arts prerequisites (see below), but no prior coursework in teaching, to prepare for New York State initial adolescent certification as social studies teachers (grades 7-12) while earning a master's degree. (There are also testing, application and other requirements.) A program that exposes students to cutting-edge ideas in education courses taught by faculty specialists, Preparation with special emphasis on actively engaging middle and high school students, working with struggling students, and serving diverse student populations. 4 field placements allowing each candidate to learn from a variety of urban and suburban school settings, teachers, and youth with diverse backgrounds and abilities.
- Opportunity for sharing professional development with a cohort of students in social studies education, and in other secondary programs, through several common core courses.
- Participation in the Academy of Social Studies Educators. Syracuse University faculty and staff, and students meet a few times a year to share professional and program development ideas.
- A program that seeks to prepare students to become social studies educators who

## GRADUATE COURSE CATALOG

are committed to developing civic-minded individuals, and who are proficient in five areas important to 21st century classrooms:

- Critical reflection and explanations of practice.
- Critical reflection and explanations of practice.
- Content knowledge.
- Inclusive and culturally relevant pedagogy.
- Assessment of student learning and development of social studies literacy.
- Professional conduct and collaboration.

### Master's Degree Course Requirements

The program requires 35 credits, is designed with full-time students in mind, and may be completed in 12 months, beginning in May. However, students who enter with education study equivalent to one of the courses below may have their syllabi reviewed for waiver of course(s). In no case will fewer than 30 graduate credits be required.

(courses with \* include field experience)

#### First Summer

- **EDU 606 - Understanding Learning and Teaching 4 credit(s) \***
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- **RED 625 - Literacy Across the Curriculum 3-4 credit(s) \***

#### Fall - Candidacy Semester

- **EDU 522 - Social Studies and Democracy: The Reconstruction of Education 3 credit(s)**
- **SED 613 - Methods and Curriculum in Teaching 3 credit(s)**
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s) \***
- **SED 640 - Participation in the Professional Development School 0-1 credit(s)** (Social Studies Academy) 0 credits
- Safe and Healthy Learning Environments (0 credit), 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.

#### Spring - Standard Student Teaching Semester

- **EDU 508 - Student Teaching 2-15 credit(s)** /Social Studies 6 credits\*
- **EDU 622 - International Education for Transformation 3 credit(s)**
- **SED 640 - Participation in the Professional Development School 0-1 credit(s)** (Social Studies Academy) 0 credits
- **SED 616 - Assessment & Data-Driven Instruction 3 credit(s)** /Social Studies 3 credits

#### Intensive Examination

A master's degree intensive examination is also required.

#### Liberal Arts Course Requirements

The requirements of this program include several undergraduate social science and distribution courses. It is not unusual that an applicant will have one or more of these courses left to take. These do not need to be completed before applying and may be taken at an institution other than Syracuse University. However, some of the courses need to be done before starting the graduate program, and all must be finished before a degree can be granted. We help students identify appropriate courses.

Interested students should contact Marie Sarno, Program Specialist, as early as possible (including before applying) to have unofficial transcripts reviewed against the liberal arts requirements. This allows more time to enroll in needed courses.

#### Social Science Content

- A major in history or another social science area; OR by the end of the MS program, a minimum of 39 semester hour credits of social sciences, with at least 27 completed before beginning the master's program (including 9 upper division credits).
- The 39 credit hours must include:
- 18 credits total of American and global history.
- One social science geography course
- One course in economics
- One course in political science

#### Distribution courses (one each, with no grade less than a C)

- Writing
- Mathematics

- Natural Sciences
- Artistic Expression
- Humanities other than history or artistic expression
- Language other than English including American Sign Language (completion of high school Level 3 or higher may be substituted.)

### Student Affairs Counseling, MS

#### Contact:

Dr. Derek Seward, Hoople Building, lower level  
315-443-2266, dxseward@syr.edu

The Master of Science in Student Affairs Counseling prepares students for college and university positions within student affairs for which counseling skills are valuable. Students and graduates of the program work in settings such as:

- Student Services and Advisement
- Residence Life
- Campus Substance Abuse Programs
- Athletic Departments
- Rape Crisis Centers
- University Career Centers
- Multicultural and International Students' Offices
- Judicial Affairs' Office

#### Major Requirements

As part of the program, students acquire skills in individual and group counseling, career counseling, and multicultural counseling. Additionally, students complete 12 credits of content knowledge about various aspects of higher education. Upon completion of the program, students are immediately eligible to become National Certified Counselors with the National Board for Certified Counselors (NBCC).

Programs include extensive fieldwork opportunities in which students gain hands-on experience working with college students and clients in a wide range of counseling and educational settings. Students work closely with their advisor, and the fieldwork coordinator to identify settings that meet their individual interests and career goals. The faculty is nationally recognized for their leadership in the profession and all classes are taught by skilled experts and experienced clinicians.

The faculty is deeply committed to the growth and development of their students; faculty work closely with both our master's and doctoral students. Students are trained in the most current information in counseling and provided the

## GRADUATE COURSE CATALOG

opportunity to develop their skills and succeed in their chosen area of specialization. The department's goal is to prepare national leaders in counseling. It seeks to develop a diverse group of professionals who will excel in knowledge, skills, commitment, and service in a wide range of educational and community settings.

### S.U. Re-Accredited through 2016:

After an extensive review of the Counseling and Human Services Programs, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) recently announced that Syracuse University's programs have met all expectations, and granted us the full eight year accreditation period for all of our accredited master's degree programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling), as well as our Counselor Education Ph.D. program. This means each of these programs will be accredited by CACREP until 2016. This decision is a testament to the quality education offered here at Syracuse University, and a signal of support for the work that is done here.

## Teaching and Curriculum, MS

### Contact:

for M.S. program; Benjamin Dotger, 150  
Huntington Hall, 315-443-9659, bdotger@syr.edu

### Major Requirements

The M.S. program is available to those seeking advanced study in education, but not a teacher certification program. It is a 30 credit flexible degree program, which encompasses a number of fields of practice in education. Each program of study is developed individually with an advisor in a specific content area of teaching and/or areas of special interest. Consider these examples:

- A social studies teacher, one could elect courses on contemporary pedagogies, learn how to nurture literacy skills within a curriculum, learn how to address citizenship and counter the effects of the media on student biases, or study with world-class political scientists at Syracuse University's Maxwell School of Citizenship.
- An art educator could expand an understanding of curriculum by teaching in specialized workshops for children, could engage in an art medium with which they are less familiar through the School of Art and Design, or could studying cross-cultural arts and interdisciplinary curricula.
- An elementary education teacher could learn

how to promote reading progress among students for whom this is a challenge, how to teach children for whom learning English is difficult, or how to adapt instruction to the unique needs of children with different learning styles.

These personalized plans of study will also incorporate the following elements:

- At least one course in basic research methods, in analysis of research or in tests and assessments
- At least four graduate level courses in the student's field of teaching certification
- At least one course from outside the area of teaching certification

At the end of the program, students must successfully complete two requirements: compilation and presentation of an acceptable Professional Portfolio, and a Master's Intensive Exam.

Special permission is required for application to this program.

## Teaching English Language Learners (First Certification), MS

### Description

The TELL/First Certificate program prepares teachers to help students develop proficiency in English for academic and social purposes in integrated and free-standing services, compatible to current school programs, and to become effective advocates for integrated, fully inclusive classroom-based programs that draw on student strengths and address student needs. The program is grounded on the principles that the linguistic and cultural backgrounds of English language learners are valuable resources and that students best acquire and develop English language literacy - speaking, listening, reading and writing-in rich language contexts. Through academic work, TELL degree candidates gain knowledge of theories, strategies, and methodologies in teaching English language learners and become conversant in socio-cultural and socio-linguistic issues that impact acquisition of English as an additional language. The combination of coursework and practical experience prepares teachers as specialists in educating English language learners by providing them a thorough understanding of how theory is connected to effective practice in promoting second language acquisition and developing literacy for social and academic purposes.

This program is designed for those without certification and is a 39-credit course of study

to be pursued full-time over a year, summer-fall-spring-summer sequence.

The program also requires a minimum of 12 credits in one language other than English as an entry requirement.

### Required Courses

- **EDU 606 - Understanding Learning and Teaching 4 credit(s)** (35 hours including some hours of observation and analysis of video episodes of teaching)
- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **RED 607 - Issues in Multicultural Literacy 3 credit(s)**
- **ELL 625 - Methods of Teaching Literacy to English Language Learners 3 credit(s)** (25 hours of fieldwork, PreK-6)
- **RED 626 - Early Intervention for Children's Reading Problems 3 credit(s)**
- **ELL 615 - Linguistics for Teachers of English Language Learners 3 credit(s)**
- **ELL 635 - Methods of Literacy Across the Curriculum for English Language Learners 3 credit(s)** (25 hours of fieldwork, 7-12)
- **SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)** (15) hours
- **LIN 591 - Second Language Acquisition 3 credit(s)**
- **EDU 508 - Student Teaching 2-15 credit(s)** (one semester of daily work in schools)
- **ELL 655 - Teaching English Language Learners Practicum and Capstone Seminar 6 credit(s)** (minimum of 20 days student teaching in an ESL classroom)

### Required Seminars

To be eligible for these New York State teacher certifications, students in the Teaching English Language Learners programs must complete or have completed training in:

- Child Abuse Prevention
- Child Abduction Prevention
- Violence Prevention
- Fire and Arson Prevention
- Prevention of Alcohol, Tobacco, and Drug Abuse

## GRADUATE COURSE CATALOG

- Highway Safety
- Dignity for All Students Act

**Students must complete this requirement prior to their first student teaching experience.**

Degree Awarded: M.S. in  
Teaching English Language  
Learners (First Certification)

### Teaching English Language Learners (PreK-12), MS

#### Contact

Zaline Roy-Campbell, 200 Huntington Hall, 315-443-8194, zmroycam@syr.edu

This program leads to a master's degree and recommendation for New York State certification in teaching English to Speakers of Other Languages (ESOL), PreK-12. It reflects cutting edge theory and practice related to helping English language learners develop proficiency in English literacy and academic language skills. The program aligns with the professional standards of Teachers of English to Speakers of Other Languages (TESOL) Organization, and the New York State Teaching and Learning Standards and prepares teachers to be agents of change who work to transform education in ways that will fully serve the needs of English language learners.

This program is designed for those with NYS certification, and is a 30-credit course of study. It can be pursued full-time over a year, in a fall-spring-summer sequence, or part-time over a several-year period.

The program also requires a minimum of 12 credits in one language other than English as an entry requirement.

#### Required Courses

- **LIN 601 - Introductory Linguistic Analysis 3 credit(s)**
- **LIN 591 - Second Language Acquisition 3 credit(s)**
- **ELL 615 - Linguistics for Teachers of English Language Learners 3 credit(s)**
- **RED 607 - Issues in Multicultural Literacy 3 credit(s)**
- **RED 626 - Early Intervention for Children's Reading Problems 3 credit(s)**
- **ELL 625 - Methods of Teaching Literacy to English Language Learners 3 credit(s)**
- **ELL 635 - Methods of Literacy Across**

#### the Curriculum for English Language Learners 3 credit(s)

- **ELL 645 - Issues in Educating English Language Learners 3 credit(s)**
  - **ELL 655 - Teaching English Language Learners Practicum and Capstone Seminar 6 credit(s)**
- (minimum of 20 days student teaching in an ESL classroom)

#### Required Seminars

To be eligible for these New York State teacher certifications, students in the Teaching English Language Learners programs must complete or have completed training in:

- Child Abuse Prevention
- Child Abduction Prevention
- Violence Prevention
- Fire and Arson Prevention
- Prevention of Alcohol, Tobacco, and Drug Abuse
- Highway Safety
- Dignity for All Students Act

**Students must complete this requirement prior to their first student teaching experience.**

#### Doctorate

### Counseling and Counselor Education, PhD

#### Contact:

Nicole Hill, Ph.D., Chair, Hoople Building, lower level, 315-443-2266, nrhill@syr.edu

#### Major Requirements

The Doctor of Philosophy in Counseling and Counselor Education and Supervision is a CACREP-accredited program designed to prepare graduates for academic positions and other careers in Counselor Education, building on the entry level competencies of the master's degree in counseling. The doctoral program consists of approximately 96 graduate credits beyond the baccalaureate degree, with an additional 9-12 dissertation credits. Students must complete a minimum of 48 credits of course work (excluding dissertation) at Syracuse University. The doctoral program of study incorporates didactic and experiential learning and includes a cognate area of study involving at least nine semester credits, which are usually completed outside of the department.

In addition to meeting national accreditation standards, our program claims special expertise in five distinct areas. Students can expect unique opportunities, including conducting research, in any or all of the following:

- **Clinical Supervision**  
Developing the knowledge and skills necessary to train and supervise counselors and counselors-in-training, and to teach supervision to others.
- **College Mental Health Counseling**  
Developing the knowledge and clinical skills necessary to work within a college counseling context with students who present with a wide range of developmental and mental health concerns.
- **Counseling People with Disabilities**  
Developing the knowledge and skills necessary to ensure full participation of people with disabilities in all aspects of living.
- **The Future Professoriate**  
Developing the knowledge and skills necessary to assume academic, administrative, and professional leadership roles related to the professoriate.
- **Social Justice and Urban Youth**  
Developing the knowledge, skills, and awareness necessary to identify and confront the institutionalized forms of discrimination which continue to perpetuate disparities in social, academic, and career opportunities for urban youth.

The strengths of our doctoral program are numerous. Current and past doctoral students have offered the following comments on the quality of S.U.'s program:

- Faculty who are nationally recognized yet student-focused
- Multiple opportunities for clinical supervision
- Opportunities and support for developing teaching skills through the Future Professoriate program
- Solid financial support through graduate assistantships and excellent medical benefits
- Flexible policies allowing doctoral students to use GA support for summer courses
- Financial support to attend and present at national conferences
- Opportunities to develop research skills as part of on-going research teams

The Department of Counseling and Human Services has been a pioneer in training highly skilled practitioners and leaders in a wide range of counseling settings. Syracuse's programs are nationally accredited and can lead to national certification or State Certification in School Counseling or Licensure as a Clinical Mental

## GRADUATE COURSE CATALOG

Health Counselor.

Programs include extensive fieldwork opportunities in which students gain hands-on experience working with students and clients in a wide range of counseling and educational settings. Students work closely with their advisor, and the fieldwork coordinator to identify settings that meet their individual interests and career goals. The faculty is nationally recognized for their leadership in the profession and all classes are taught by skilled experts and experienced clinicians.

The faculty is deeply committed to the growth and development of their students; faculty work closely with both our master's and doctoral students. Students are trained in the most current information in counseling and provided the opportunity to develop their skills and succeed in their chosen area of specialization. Doctoral students have many opportunities to develop their teaching, research and supervision skills and are prepared to be nationally competitive in academic and practice settings.

The Department's goal is to prepare national leaders in counseling. It seeks to develop a diverse group of professionals who will excel in knowledge, skills, commitment, and service in a wide range of educational and community settings.

### S.U. Re-Accredited through 2016:

After an extensive review of the Counseling and Human Services Programs, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) recently announced that Syracuse University's programs have met all expectations, and granted us the full eight year accreditation period for all of our accredited master's degree programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling), as well as our Counselor Education Ph.D. program. This means each of these programs will be accredited by CACREP until 2016. This decision is a testament to the quality education offered here at Syracuse University, and a signal of support for the work that is done here.

## Cultural Foundations of Education, PhD

### Contact:

Barbara Applebaum, Chair, 363 Huntington Hall, 315-443-3343, bappleba@syr.edu

Cultural Foundations of Education is a highly demanding and nationally prominent interdisciplinary graduate program created to support fundamental inquiry into the nature of education. Graduate students draw on the

disciplines of history, philosophy, and sociology to analyze issues related to inequality in education. Faculty interests include disability, the relationship of popular culture and mass media to education, race, racism and multiculturalism, identity and difference, democracy and education, intergroup dialogue, theories of knowledge and feminist theory. Our alumni have success finding jobs in higher education, foundations, policy research, school systems, and government agencies.

Each program is individually designed, allowing students to work with their advisors to build their own program around their research interests. This may include courses from other Syracuse University programs and colleges, including the Maxwell School of Citizenship and Public Affairs, the S.I. Newhouse School of Public Communications, and the College of Arts and Sciences. At the same time, cohorts of students take courses in the department together so that students share a common vocabulary.

Faculty members are well-known in their fields and actively engaged in ongoing research. The department's outstanding graduate students collaborate with faculty in research, publishing, and professional activities. The department regularly sponsors opportunities for students and faculty to share their work, discuss current issues, or read and critique current articles. There is a strong emphasis on community amongst scholars.

### Major Requirements

The department supports interdisciplinary work and encourages the use of diverse research approaches including empirical and philosophical work, historical research, and policy analysis. The doctoral degree program is designed so that students both receive a broad education and develop disciplinary tools without being restricted to a narrowly specialized program of study. Students can choose a particular concentration—history of education, philosophy of education, or sociology of education—or they can work between these areas. Within these concentrations, students may want to focus on particular areas of research such as disability studies, popular culture, urban education, gender and education, popular culture and race, racism and education.

## Educational Leadership, EdD

### Contact:

Joseph Shedd, 150 Huntington Hall, 315-443-2685, jbshedd@syr.edu

### Major Requirements

The Ed.D. program in educational leadership is

designed for educators who want to engage in serious scholarship of issues of leadership and learning in pre-collegiate educational settings. The program's emphasis on applied research makes it particularly appropriate for those who expect to continue as educators in field settings, although it is not designed exclusively for such students.

## Higher Education, PhD

### Contact:

Cathy Engstrom, Chair, 350 Huntington Hall, 315-443-4763, cmengstr@syr.edu

Higher Education focuses on issues of diversity and inclusion, as applied to both the theory and practice of student success, development and learning in higher education. Given the increasing diversity of college student backgrounds, critical reforms are needed in higher education in order to develop diverse curricular and non-curricular structures, practices, policies, and pedagogies that embrace and build upon students' talents, experiences, and potential so they learn, develop, and succeed. Due to the complexity of the issues facing higher education around the world, students draw on resources in the School of Education and across the University to provide an interdisciplinary, foundational perspective supplemented by ongoing, integrated practical experiences. Students analyze higher education at a variety of levels, including individual students, student populations, institutions, and systems of higher education, and the policies and practices related to each that foster the success of all college students.

### Major Requirements

Course offerings cover student development and learning, student attainment and retention; race and gender in higher education; student affairs administration; administrative theory and practice in higher education; learning communities; legal issues in higher education and history.

A hallmark of these programs and their coursework is community and collaboration. Many courses require collaborative group work that involves students as active learners in class and in our program learning community. At the same time, the program is structured to promote collaboration among students, faculty, and administrators. Whenever possible, students and faculty will work together on collaborative research and administrative projects.

The Doctoral degree program include coursework throughout the University so students can draw upon the expertise of faculty from departments in the School of Education (e.g., Cultural Foundations of Education) and a variety of schools including the Maxwell School of

## GRADUATE COURSE CATALOG

Citizenship and Public Affairs and the School of Management. Both degree programs also offer field and internship experiences (required for all master's degree students) which are available at the University and a diversity of neighboring institutions. Doctoral students specializing in higher education are required to have a minimum of three years of full-time experience in higher education. Because the department and its faculty have a strong reputation within the field, graduates of the program are typically embraced by a vibrant market offering a variety of positions.

### Note:

No more than 6 credits may be taken prior to matriculating into the higher education M.S. degree program. No more than 9 credits post master's degree may be taken before matriculating into the Ph.D. program. All master's students must take a minimum of 9 credits per academic year. All doctoral students must complete 12 credits per academic year.

## Instructional Design, Development and Evaluation, PhD

### Contact:

Tiffany A. Koszalka, Chair, 330 Huntington Hall, 315-443-3703, takoszal@syr.edu

The Instructional Design, Development and Evaluation Department (IDD&E) offers a variety of programs to help students develop the competencies required to identify and evaluate learning and performance problems and to design, develop, and implement appropriate instructional solutions to these problems. Students develop competencies to conduct instructional analysis, make appropriate design decision, develop instructional materials, implement and evaluate instructional programs, and assess learning. The curriculum includes courses that blend soft technologies (thinking models and theories, strategic planning, IDD&E processes, interpersonal communications, and software) and hard technologies. Through practical projects, students develop competencies to design, create, implement, and evaluate non-technology and technology-supported instructional solutions for a variety of educational and professional settings. Certificates are offered in educational technology (15 credits), professional practice in educational technology (24 credits), and instructional design fundamentals (12 credits); a master's of science degree is offered in Instructional Technology for NYS K-12 permanent certification; and M.S., C.A.S., and Ph.D. degrees in Instructional Design, Development and Evaluation, are offered.

## Major Requirements

Doctor of Philosophy students may select one of two emphases in their Ph.D. programs: an Academic Research focus, or a Professional Studies focus. Although both encompass research-oriented emphases, the two options reflect the increasingly diverse skills and settings requiring Ph.D. preparation. While both emphases require 90 graduate credits and a dissertation, there are differences in the kinds of dissertations expected and the appropriate inquiry requirements for each emphasis. The Academic Research focus prepares students for tenure-line faculty positions in research universities. Special emphasis is given to in-depth methodological training, extensive research experience, advanced expertise in a focused area of inquiry, participation in academic and professional research communities, and the development of teaching skills. The Professional Studies focus prepares graduates for these settings by emphasizing strong methodological training, extensive experience with applied projects, the flexibility to work in teams on a broad range of problems, participation in applied professional communities, and the development of management and leadership skills.

## Literacy Education, PhD

### Contact:

Dr. Kelly Chandler-Olcott, 200 Huntington Hall, 315-443-4755, kpchandi@syr.edu

## Program Requirements

The Doctor of Philosophy (Ph.D.) in Literacy Education provides students with the opportunity to gain expertise in cognitive, social, and critical perspectives toward language and literacy development, instruction, and teacher education. Students learn to conduct and publish significant scholarly work, design innovative curricula and assessment, advocate for literacy policy, and teach pre- and in-service teachers. They draw on Reading and Language Arts Department faculty expertise and courses, as well as offerings from across the School of Education and University, to develop a 90-credit program of study that focuses on childhood literacy, adolescent literacy, or teaching English as an additional language.

Formal application includes a completed SOE application, three references, college/university transcripts, and competitive GRE scores. Students who are non-native speakers of English are also required to submit TOEFL (or IELTS) scores. Successful applicants typically have at least 3 years K-12 teaching experience, a Master's degree in education or related area, preferably in literacy, reading education, or English education for native

or non-native speakers, competitive GREs and TOEFL (or IELTS) scores, a well written personal statement indicating focus, drive, and knowledge of literacy-related Ph.D. career paths, and references who speak to the candidate's potential to contribute to the literacy field.

## Mathematics Education, PhD

### Contact

Joanna Masingila, 203 Carnegie, 315-443-1483, jomasing@syr.edu

The School of Education, in cooperation with the Department of Mathematics, in the College of Arts and Sciences, offers a Ph.D. degree in Mathematics Education. The program is designed for students who have demonstrated a high level of mathematical capability and are committed to full-time graduate study. It emphasizes preparation for academic positions in three areas:

- Research on the teaching and learning of mathematics.
- Teacher preparation and professional development.
- Teaching mathematics education at the college level.

## Ph.D. in Mathematics Education

Successful completion of the doctoral program typically requires three to four years of study beyond the master's degree. Each student's program of study is tailored to fit the individual's background, professional experience, and career goals and to satisfy degree requirements.

Most doctoral students earn the majority of their mathematics education credits by working closely with the mathematics education faculty in courses, independent study projects, and internships. Students are encouraged to develop strong backgrounds in mathematics, research design and methods, and learning theories.

## Research Areas

The department's Colloquium series features weekly lectures by mathematicians from all over the United States and abroad in many of the areas of mathematical research represented in the department. Furthermore several of the research groups organize regular research seminars. Colloquia and seminar schedules, along with other information about our programs, courses, and events, can be found at math.syr.edu.

The following research groups are currently represented in the department.

## GRADUATE COURSE CATALOG

### Algebra

Algebraic geometry (moduli spaces of curves, equations defining finite sets of points), commutative algebra (homological algebra, Cohen-Macaulay modules, characteristic  $p$ ), non-commutative algebra (representations of finite-dimensional algebras, homological algebra, group actions on non-commutative rings, Hopf algebras, enveloping algebras, non-commutative algebraic geometry). Faculty: Diaz, Kleiner, Leuschke, Miller, Quinn, Zacharia.

### Analysis

Complex analysis (several complex variables, pluripotential theory, complex dynamics, invariant metrics, holomorphic currents, Kähler geometry, rigidity problems), geometric analysis (PDE on manifolds, geometric flows), harmonic analysis, partial differential equations (linear and nonlinear elliptic PDE, boundary value problems on nonsmooth domains), geometric function theory (quasiconformal mappings, analysis on metric spaces). Faculty: Coman, Iwaniec, Kovalev, Lanzani, Onninen, Poletsky, Verchota, Vogel, Wylie, Yuan.

### Applied Mathematics

Numerical analysis (approximate solutions of elliptic PDE, generalized finite element methods and meshless methods), nonlinear variational problems (microstructure in nonlinear elasticity), applied and computational harmonic analysis (wavelets, digital image processing). Faculty: Banerjee, Lutoborski, Shen, Wang.

### Combinatorics

Combinatorics, graph theory, rigidity theory, symmetries of planar graphs, automorphism groups of graphs. Faculty: Graver.

### Geometry/Topology

Low-dimensional topology and knot theory (knot concordance, Heegaard Floer homology, homology theories for knots and links), K-theory (topological K-theory of Eilenberg-Mac Lane spaces, equivariant homotopy theory), Riemannian/Kähler geometry (Ricci curvature and topology, special metrics, geometric flows, rigidity problems). Faculty: Horn, Ucci, Wehrli, Wylie, Yuan.

### Mathematics Education

Secondary mathematics education, teacher learning, mathematical modeling, out-of-school mathematics practice, teacher development. Faculty: Doerr, Masingila.

### Probability

Interacting particle systems, Brownian motion,

random walks, probabilistic methods in mathematical finance, martingales. Faculty: Cox, Griffin, McConnell.

### Statistics

Ranking and selection theory (applications in radar signal processing and two-stage procedures for multinomial problems), change-point problems, sequential analysis, longitudinal analysis, neural networks. Faculty: Chen, Kim, Volterman.

### Graduate Awards

Figures for graduate appointments represent 2015-2016 stipends.

### Graduate Scholarships:

Support graduate study for students with superior qualifications; provide, in most cases, full tuition for the academic year.

### Graduate

### Assistantships:

Offered to most Graduate Scholarship recipients; no more than an average of 15 hours of work per week; nine months; stipend ranging from \$17,244.26 to \$21,072.77 in addition to tuition scholarship for 24 credits per year. Additional summer support is generally available.

### Syracuse University

### Graduate Fellowships:

Tax-free stipends ranging from \$14,535 to \$24,310 for nine months of full-time study; tuition scholarship for 15 credits per semester for a total of 30 credits during the academic year.

### Facilities

The mathematics collection is held within the Carnegie Library and currently includes over 34,000 books. Many of the resources are online and include MathSciNet, Current Index to Statistics, Jahrbuch Database, MathEduc, ERIC, Scopus, and Web of Science, and over 350 mathematics journal subscriptions.

In addition to covering a broad range of pure and applied mathematics, the collection contains print and electronic resources in the history of mathematics, mathematics education, and statistics. The following resources are available for student borrowing from the Carnegie Library service desk: TI graphing calculators, geometry kits, and course reserve books.

The computer lab in Carnegie Library, Room

208, has 16 computers, and a color printer with copying and scanning capability. The lab computers provide extensive software for statistical or data analysis, data base management, programming, and graphics. More information on computing services and the software available for students may be found on the ITS website: <https://its.syr.edu/computer-labs/index.html>.

The Carnegie Library contains over 210,000 volumes in the sciences, including biology, chemistry, engineering and computer science, library and information science, nutrition science and dietetics, public health, physics & astronomy, photography, technical arts, pure and applied mathematics, probability and statistics, mathematics education, and military and naval sciences. The historic Reading Room provides a quiet place for students to study and use library resources.

### Science Education, PhD

### Contact

John W. Tillotson, 101 Heroy Geology Lab, 315-443-2586, [jtillot@syr.edu](mailto:jtillot@syr.edu)

Students with an interest in research and/or university teaching usually pursue the Ph.D. degree. Their programs emphasize intensive study in a major area of specialization and often a minor area as well, leading to the development or extension of theory and research in the major field.

Graduates of the Ph.D. program in Science Education pursue a wide range of career paths. Many doctoral graduates assume faculty positions in elementary, middle or secondary education and/or teacher education at major research universities, as well as teacher preparation colleges. This degree prepares individuals to conduct science education research, teach science pedagogy and curriculum courses, and to create professional development programs for K-12 education. Some graduates also pursue careers as school district administrators.

### Major Requirements

Doctoral study with an emphasis in applied exercise physiology is offered in conjunction with the School of Education's Ph.D. program in science education. This highly individualized doctoral degree in Science Education with a concentration in exercise physiology is a research intensive program offered through the Science Education Department. In addition to course work, students work with their faculty mentor on various research projects. Students are encouraged to contact their potential faculty mentor directly prior to applying.



## GRADUATE COURSE CATALOG

### Special Education, PhD

For master's degree programs see Early Childhood Special Education and Inclusive Special Education: 1-6 preparation and 7-12 preparation and Inclusive Special Education: Severe/Multiple Disabilities.

### Contact:

Beth A. Ferri, 150 Huntington Hall, 315-443-2699, baferris@syr.edu;

Syracuse University has a long tradition of leadership in the field of special education and is recognized nationally and internationally. Syracuse University offered one of the first comprehensive programs of its kind in the United States and continues to be recognized for its leadership and vision in inclusive education. Throughout its fifty-year history, faculty and students in the program have engaged in critically important educational issues and concerns. Syracuse was among the first universities to bring attention to the educational needs of students with disabilities and to effectively develop and refine assessment and educational strategies for diverse learners. Syracuse also led the way in deinstitutionalization policy, research, and advocacy. Syracuse faculty and students continue this important legacy of promoting the rights of students with disabilities. In collaboration with area school districts, faculty and students have been instrumental in demonstrating ways of meaningfully integrating students with disabilities in general education classrooms.

Doctoral study should afford students the opportunity to examine critical issues in the field in the broadest possible contexts. It should encourage expansive thinking and developing new ways of examining important educational issues as well as in-depth study. At Syracuse University we pursue both aims by supporting broadly framed inquiry and in-depth investigations into particular, focused areas or issues. We have organized our program to address two interrelated foci: a concern for public policy affecting the lives of people with disabilities; and, the development of effective instructional programming for diverse learners. Doctoral students are asked to select one major emphasis: 1) Inclusive Educational Studies or 2) Disability Studies and Policy Studies. The purpose of selecting a major emphasis is to help bring focus to student's coursework plans, research activities, internships, and career planning. Students are not limited to any one particular area and are encouraged to take courses and participate in seminars that expand or contribute to their research interests.

The doctoral concentration is designed to serve students who wish to pursue leadership positions in special education or related fields. This

includes those who seek a career in the academy, or as field-based researchers, government/policy specialists, public and private agency/organization directors, program developers, and special education consultants and advocates. The majority of our graduates seek academic positions as faculty at colleges and universities.

### Requirements for Courses on Methods of Research and/or Scholarly Inquiry

The Programs of Study must include 15 hours of courses in research methods. The minimal requirement of 15 research credit hours is usually best met by completing EDU 603 Introduction to Qualitative Research Methods and EDU 647 Statistical Thinking and Applications Methods of Educational Research, plus nine additional credit hours selected in consultation with your advisor to ensure both a depth and breadth of knowledge in research methods and to develop further expertise appropriate to his or her dissertation research.

The Ph.D. student may select other 12 credit sequences with the approval of his or her advisor. The student may take a research design course and a three course sequence in statistics, or may prefer a 12 credit hour sequence.

### Research Apprenticeship Requirement

Ph.D. students must complete a research apprenticeship prior to beginning work on the dissertation. As part of this requirement the student must submit a completed research document in publishable format to the Higher Degrees Committee.

The research apprenticeship is usually supervised by a sole faculty member who is either the student's program advisor or another member of the faculty. Some students complete the research apprenticeship experience within the context of a regular course (in which case the course instructor sponsors the apprenticeship). Other students contract with their sponsor for an independent study course carrying 3 to 6 hours. Still others conduct the apprenticeship without any formal hours attached to it.

### Qualifying Examination Requirement

The students will take the Qualifying Examination when they have completed their coursework. The exam covers the major field and, if applicable, the minor or Certificate of Advanced Study (CAS).

### Additional Information

Applications are reviewed in December and January for the following fall. A writing sample must be submitted when applying to the program.

### Teaching and Curriculum, PhD

### Contact:

for Ph.D program, John W. Tillotson, 150 Huntington Hall, 315-443-9659, jwtilot@syr.edu

### Major Requirements

The Doctor of Philosophy (Ph .D.) in Teaching and Curriculum program is designed to prepare experienced educators for research on teaching and learning, curriculum, teachers, and teacher education. It serves students who wish to study teaching-learning processes in several of the disciplines in elementary and secondary education and selected non-school contexts, the theory and practice of curriculum, the lives and careers of teachers, and policies and practices of teacher education. Through their programs of study, students develop scholarly agendas that will support careers as novice scholars, researchers, and teachers in higher education. Emphasis is placed on research design, implementation, and analysis, and forms of scholarly expression. An apprenticeship gives experience to novice researchers. Opportunities are provided for candidates to gain experience in college-level teaching. Graduates of this program are on the faculties at colleges and universities across the nation and abroad.

The Teaching and Curriculum programs are housed in and served by the Teaching & Leadership Programs unit of the School of Education.

The Ph.D. program in Teaching and Curriculum offers students the following advantages and opportunities:

- exposure to cutting edge ideas through courses and one-on-one study with faculty who are at the forefront of their fields;
- flexibility of program requirements, allowing for individualization within the 90 semester hours required to complete the program, building on general program and School of Education requirements;
- many courses offered in the late afternoon and evening to accommodate students completing their degree on a part-time basis;
- study and engagement with other students who bring diverse professional and personal backgrounds, from across the nation and internationally, to their graduate program experiences;
- a specialization which builds an area of

## GRADUATE COURSE CATALOG

particular expertise, such as elementary education, inclusive education, social studies education, art education, music education, teacher education, educational leadership, curriculum studies, or other areas as might be proposed;

- the opportunity to select courses from the wide variety of areas within Teaching & Leadership Programs, the School of Education, and from departments across Syracuse University: sociology, linguistics, nutrition, psychology, management, women's studies, computer and information science, African-American studies, nursing, and public communication are among the fields that have been integrated into doctoral programs in Teaching and Curriculum;
- a dynamic School of Education that has national and international reputation of excellence and commitment to the field of education.

### Combined Degree

### African American Studies Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Anthropology Secondary Teacher Preparation, BA/ MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Biology Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Biology Secondary Teacher Preparation, BS/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Chemistry Secondary Teacher Preparation, BA/ MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Chemistry Secondary Teacher Preparation, BS/ MS

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 the area of study. Both the Arts and Sciences

## GRADUATE COURSE CATALOG

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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Cultural Foundations of Education, JD/MS

#### Program Requirements

The College of Law's 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 also may earn a certificate of advanced study (C.A.S.) 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbboth@law.syr.edu](mailto:cabbboth@law.syr.edu)).

### Earth Science Secondary Teacher Preparation, BA/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Earth Science Secondary Teacher Preparation, BS/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Economics Secondary Teacher Preparation, BA/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on

what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Economics Secondary Teacher Preparation, BS/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### English and Textual Studies Secondary Teacher Preparation, BA/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

## GRADUATE COURSE CATALOG

### Geography Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### History Secondary Teacher Preparation, BA/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### International Relations Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Latino-Latin American Studies Secondary Teacher Preparation, BA/MS

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

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Mathematics Secondary Teacher Preparation, BA/MS

Combined Bachelor's/Master's Degrees in Mathematics and Secondary Education (Math) 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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Mathematics Secondary Teacher Preparation, BS/MS

Combined Bachelor's/Master's Degrees in Mathematics and Secondary Education (Math) 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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Physics Secondary Teacher Preparation, BA/MS

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

This combined degree option, offered by the

## GRADUATE COURSE CATALOG

College of Arts and Sciences and the School of Education meets the academic requirements for the New York State teaching certification for the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Physics Secondary Teacher Preparation, BS/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Policy Studies Secondary Teacher Preparation, BA/MS

Combined Bachelor's/Master's Degrees in Policy 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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Political Science Secondary Teacher Preparation, BA/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Sociology Secondary Teacher Preparation, BA/MS

Combined Bachelor's/Master's Degrees in Sociology 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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Women's and Gender Studies Secondary Teacher Preparation, BA/MS

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 the area of study. 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.

The School of Education encourages interested undergraduates to consult early for advice on what undergraduate courses should be completed in order to articulate smoothly into the master's degree program.

### Certificate of Advanced Study

### Cultural Foundations of Education, CAS

#### Contact:

Barbara Applebaum, Chair, 363 Huntington Hall, 315-443-3343, [bappleba@syr.edu](mailto:bappleba@syr.edu)

Cultural Foundations of Education is a highly demanding and nationally prominent interdisciplinary graduate program created to support fundamental inquiry into the nature of education. Graduate students draw on the disciplines of history, philosophy, and sociology to analyze issues related to inequality in education. Faculty interests include disability, the relationship of popular culture and mass media to education, race, racism and multiculturalism, identity and difference, democracy and education, intergroup dialogue, theories of knowledge and feminist theory. Our alumni have success finding jobs in higher education, foundations, policy research,

## GRADUATE COURSE CATALOG

school systems, and government agencies.

Each program is individually designed, allowing students to work with their advisors to build their own program around their research interests. This may include courses from other Syracuse University programs and colleges, including the Maxwell School of Citizenship and Public Affairs, the S.I. Newhouse School of Public Communications, and the College of Arts and Sciences. At the same time, cohorts of students take courses in the department together so that students share a common vocabulary.

Faculty members are well-known in their fields and actively engaged in ongoing research. The department's outstanding graduate students collaborate with faculty in research, publishing, and professional activities. The department regularly sponsors opportunities for students and faculty to share their work, discuss current issues, or read and critique current articles. There is a strong emphasis on community amongst scholars.

### Certificate Requirements

The Certificate of Advanced Study (C.A.S.) in Cultural Foundations of Education is a highly-demanding, interdisciplinary program created to support fundamental inquiry into the nature of education. Students draw on disciplines of history, philosophy, and sociology to analyze such issues as inequality, disability, the relationship of popular culture and mass media, and the philosophy of multiculturalism and racism in education.

C.A.S. students must complete 60 graduate credits, at least half of them from Syracuse University. All C.A.S. students must take a qualifying examination and complete a project, which usually coincides with one or more field experiences.

### Disability Studies, CAS

#### Contact

Alan Foley, Program Coordinator, 350 Huntington Hall, 315-443, 3343 afoley@syr.edu or disabilitystudies@syr.edu

In addition to the M.S. and Ph.D. degrees, Cultural Foundations of Education offers a graduate Certificate of Advanced Study (C.A.S.) in Disability Studies. Disability Studies applies social, cultural, historical, and philosophical perspectives to disability in society. Building on the proud tradition of Syracuse University's School of Education in this important area, the program is designed to assist students in understanding disability and to prepare them to work to decrease barriers to full participation of all people in their community and society. This program stands at the forefront of change, exploring and facilitating new ways of thinking about and accommodating

people with disabilities.

### Certificate Requirements

The Certificate of Advanced Study (CAS) program is a 15 credit hour graduate degree in Disability Studies and related areas. The CAS program is ideally suited for students who want to demonstrate that they can teach, conduct research, or work in the area of disability studies as well as other fields (e.g., special education, rehabilitation counseling, the social sciences).

You do not need to be enrolled in a graduate degree program at SU to enroll in the CAS in Disability Studies. The CAS is designed to provide career enhancement opportunities to non-degree program students.

#### PROGRAM OF STUDY

Each student admitted into the CAS program in Disability Studies will develop a written program of study, in consultation with an academic advisor in the department of Cultural Foundations of Education. The program of study must be completed within 5 semesters, or 6 semesters under exceptional circumstances. All credits for the CAS must be earned at Syracuse University.

The program of study must include:

- Twelve credit hours in disability-related courses.
- Three additional credit hours in disability related courses or other courses or experiences (e.g., internship or independent study) that provide skills and knowledge that can be applied to the study of disability, as approved by the student's advisor.
- A written or oral examination.

The purpose of the CAS is not to provide you with professional certification. Other programs at Syracuse offer professional certification in disability-related fields. The purpose of this program is to give you the intellectual and methodological tools to enable you to play a leadership role in disability research, policy, and practice at a broad range of public and private organizations.

Cultural Foundations of Education also collaborates with the College of Law in a joint degree program focusing on disabilities studies. Students obtain the J.D. and M.S. degrees, with the C.A.S. in disabilities studies, in three years instead of the four otherwise necessary to obtain both degrees.

### Educational Leadership, CAS

#### Contact:

Diane Canino-Rispoli, 150 Huntington Hall, 315-

443-2685, dcaninor@syr.edu

Our programs in educational leadership reflect the conviction that school leaders serve all students best when they practice student-centered leadership, placing students who have been historically marginalized at the center of the educational mission and practice.

The Certificate of Advanced Study program in educational leadership is registered with New York State to lead to dual certification of its graduates as School Building Leaders and School District Leaders, qualifying candidates to serve in any school leadership position in New York State (except school district business leader, see School District Business Leadership (Professional Certification), CAS for more information). The program prepares school leaders who have the deep knowledge, practical skills, and passionate commitment to ensure that every student has full and equal access to a high quality education and attains exemplary levels of learning and personal development. Our program has recently been redesigned and reregistered with New York State, based on these principles. We have retained our long-standing emphasis on preparing school principals and district administrators to be curriculum and instructional leaders, but our program now has a new, sharper focus on a single basic question:

How do school leaders ensure that every student in their school systems succeeds?

### Certificate Requirements

The C.A.S. program requires thirty graduate credits in educational leadership (nine courses and a rigorous administrative internship), thirty additional graduate credits (typically from a prior masters degree), and successful completion of a state-administered examination in School District Leadership. (Completion of a second examination, in School Building Leadership, is required for certification but not for program graduation.) The program's courses, field experiences, and other requirements are designed to prepare candidates to support the continuous learning of all students and adults, and the continuous improvement of systems that make their learning possible, emphasizing the relationships between curriculum and instructional development, supervision of instruction, professional development, and organizational development, and the ways in which information on student learning can be used to improve teaching and learning.

### Educational Technology, CAS

#### Contact:

Tiffany A. Koszalka, Chair, 330 Huntington Hall,  
315-443-3703, takoszal@syr.edu

The Graduate Certificate in Educational Technology (15 credits) provides interested teachers, trainers, and other professional practitioners with the opportunity to advance their knowledge and skills in the area of instructional systems, learning environments, and performance technology.

This program has been registered with the New York State Education Department and is designed for students who require additional knowledge and expertise in order to advance in their professional careers.

### Certificate Requirements

This certificate program is offered by the Instructional Design, Development and Evaluation Department (IDD&E). IDD&E offers a variety of programs to help students develop the skills required to identify and evaluate learning problems and to design and develop appropriate instructional solutions to these problems. Students develop the competencies to apply instructional analysis, design and develop instructional materials, evaluate instructional programs, and assess learning. The curriculum includes teaching students about a variety of soft (process and communication) and hard technologies. Through practical projects, students develop competencies to design, create, implement, and evaluate technology-supported instructional solutions for a variety of educational and professional settings. Certificates in educational technology (15 credits), professional practices in educational technology (24 credits) and instruction design foundations (12 credits), as well as M.S., C.A.S., and Ph.D. degrees are offered.

### Curriculum of the Certificate in Educational Technology (15 Credits):

- **IDE 611 - Technologies for Instructional Settings 3 credit(s)**
- **IDE 621 - Principles of Instruction and Learning 3 credit(s)**
- **IDE 631 - Instructional Design and Development I 3 credit(s)**
- **IDE 641 - Techniques in Educational Evaluation 3 credit(s)**

Plus ONE of the following courses

- **IDE 651 - Message Design for Digital Media 3 credit(s)**
- **IDE 656 - Computers as Critical Thinking Tools 3 credit(s)**

## Instructional Design Foundations, CAS

### Contact:

Tiffany A. Koszalka, Chair, 330 Huntington Hall;  
315-443-3703 takoszal@syr.edu

### Description:

There is a growing population of professionals in business and industry, higher education, non-profits and social services organizations, government and military, healthcare and insurance, media, and other contexts who find themselves in positions related to training and professional development, yet have little knowledge about how to design effective and efficient instruction. This certificate will provide students with a foundational knowledge of Instructional Design and help them begin developing competencies to practice.

### Admission:

Bachelor's degree (3.0 GPA); SU School of Education UG seniors may begin to take these courses, by permission, prior to graduating and transfer them to the graduate certificate if courses not taken to satisfy UG requirements.

### Required coursework:

- **IDE 621 - Principles of Instruction and Learning 3 credit(s)**
- **IDE 631 - Instructional Design and Development I 3 credit(s)**
- **IDE 632 - Instructional Design and Development II 3 credit(s)**
- **IDE 641 - Techniques in Educational Evaluation 3 credit(s)**

Total Credits: 12

### Degree Awarded:

Certificate of Advanced Study in Instructional Design Foundations

### Transfer Credit:

None

### Part-time Study:

Yes

### Satisfactory Progress:

Four (4) required courses with at least a 3.0 GPA.

## Instructional Design, Development and Evaluation, CAS

### Contact:

Tiffany A. Koszalka, Chair, 330 Huntington Hall,  
315-443-3703, takoszal@syr.edu

The Instructional Design, Development and Evaluation Department (IDD&E) offers a variety of programs to help students develop the competencies required to identify and evaluate learning and performance problems and to design, develop, and implement appropriate instructional solutions to these problems. Students develop competencies to conduct instructional analysis, make appropriate design decision, develop instructional materials, implement and evaluate instructional programs, and assess learning. The curriculum includes courses that blend soft technologies (thinking models and theories, strategic planning, IDD&E processes, interpersonal communications, and software) and hard technologies.

Through practical projects, students develop competencies to design, create, implement, and evaluate non-technology and technology-supported instructional solutions for a variety of educational and professional settings. Certificates are offered in educational technology (15 credits), professional practice in educational technology (24 credits), and instructional design fundamentals (12 credits); a master's of science degree is offered in Instructional Technology for NYS K-12 permanent certification; and M.S., C.A.S., and Ph.D. degrees in Instructional Design, Development and Evaluation, are offered.

### Certificate Requirements

The 60-credit C.A.S. builds upon the master's degree, preparing students for higher-level positions in education, industry, or academia. People seeking career advancement in positions such as Instructional and Curriculum Coordinator, Project and Performance Technology Manager, Design and Development Specialist, E-learning Specialist, Evaluation and Assessment Specialist, and Technology Coordinator may wish to pursue this program.

## Media & Education, CAS

### Contact information for the CAS programs

Dr. Barbara Applebaum Co-director, M&E; Chair, CFE, bappleba@syr.edu, 315-443-3343.

## GRADUATE COURSE CATALOG

Michael Schoonmaker, Co-director, M&E; Chair, TRF, msschoon@syr.edu.

Administrative assistant for program, Maryann Barker, mabarker@syr.edu, 315-443-3343.

### Description

This program brings together the fields of media and education, and is offered jointly by the School of Education and the S.I. Newhouse School of Public Communications. Using broad definitions, we see media as an umbrella term for a range of forms that communicate to a public and we define education as occurring in both formal settings like schools and informal arenas like popular culture. This program addresses media production and analysis in relation to visual storytelling, combining an analysis of core issues in education with visual storytelling creation and production skills. The program also speaks to the cultural terrain of how people both make and make sense of media.

### Certificate Requirements

The CAS program is designed for educators who want to learn more about public media-video, film, television, radio, music recording and incarnations of these forms on the web-both how to make media in order to tell stories (or to help their students tell stories) and how to analyze them to incorporate into their pedagogy. Students in the program will learn to increase their visual storytelling skills in order to make films about or help students document their lives and the issues they care about. Because assumptions about education, identity and difference are always visible in the documentary process, the program will also work with students on the assumptions they bring to filmmaking.

### Admission:

The CAS program follows Syracuse University's general guidelines for admission of graduate study. That is, applicants must present respectable evidence of excellence with depth and dimension in their records. The review committee expects to admit students with an exemplary transcript, extraordinary letters of recommendation, a personal statement that reflects potential growth, and a demonstrated experience in education and/or media studies. Also, we will use the "Like-Live" interface to collect unrehearsed video responses to questions about goals and qualifications in relation to media and education.

### Required Courses

- **TRF 606 - Visual Storytelling for Education 3 credit(s)**
- **CFE 662 - Youth, Schooling and Popular**

### Culture 3 credit(s)

- **M&E 601 - Media and Education CAS Colloquium 1 credit(s)**
- **M&E 621 - Media and Education Practicum: Project Development 3 credit(s)**
- **M&E 622 - Media and Education Practicum: Production 3 credit(s)**
- **M&E 650 - Special Projects Seminar 2 credit(s)**

### Certificate Awarded:

Certificate of Advanced Study in Media & Education

### Total Credits: 15

### Transfer Credit:

Transfer credit will be considered on a case-by-case basis, up to a maximum of 3 credits.

### Part-time Study:

This program requires part time study. Three weeks of the program take place on campus, with course assignments for the on-campus courses, and the required project completed by the student at home. Their project work will consist of applications of concepts from studies in the program to educational objectives in learning environments they work in, i.e. making an educational video, integrating media into classroom pedagogy and documenting it, or documenting an educational problem through visual media in conjunction with students.

### Satisfactory Progress:

3.0 (B or better) average in all courses.

### Professional Practice in Educational Technology, CAS

### Contact:

Tiffany A. Koszalka, Chair, 330 Huntington Hall, 315-443-3703, takoszal@syr.edu

The Graduate Certificate of Professional Practice in Educational Technology (24 credits) provides interested teachers, trainers, and other professional practitioners with the opportunity to advance their knowledge and skills in a selected area of specialization within educational technology. This certificate program requires successful completion of the Certificate in Educational Technology. Students completing this

certificate program will be qualified in a particular educational technology specialty and be prepared for careers as performance technologists, instructional designers, developers of distance learning and interactive training, or evaluation specialists. This program has been registered with the New York State Education Department and is designed for students who require additional knowledge and expertise in order to advance in their professional careers.

This certificate program is offered by the Instructional Design, Development and Evaluation Department (IDD&E). IDD&E offers a variety of programs to help students develop the skills required to identify and evaluate learning problems and to design and develop appropriate instructional solutions to these problems. Students develop the competencies to apply instructional analysis, design and develop instructional materials, evaluate instructional programs, and assess learning. The curriculum includes teaching students about a variety of soft (process and communication) and hard technologies. Through practical projects, students develop competencies to design, create, implement, and evaluate technology-supported instructional solutions for a variety of educational and professional settings. Certificates in educational technology (15 credits), professional practice in educational technology (24 credits) and instructional design foundations (12 credits), as well as M.S., C.A.S., and Ph.D. degrees are offered.

### Curriculum for the CAS in Professional Practices in Educational Technology:

(24 Credits)

### Certificate in Educational Technology (15 credits) and:

- **IDE 632 - Instructional Design and Development II 3 credit(s)**

Plus Two courses in one of the following areas:

### Interactive Technology and Distributed Learning:

- **IDE 656 - Computers as Critical Thinking Tools 3 credit(s)**
- **IDE 756 - Design of Online Courses 3 credit(s)**

### Design and Development:

- **IDE 712 - Analysis for Human Performance Technology Decisions 3**



## GRADUATE COURSE CATALOG

### credit(s)

- **IDE 737 - Advanced Instructional Design 3 credit(s)**

### Evaluation:

- **IDE 741 - Concepts and Issues in Educational Evaluation 3 credit(s)**
- **IDE 742 - Introduction to Survey Research 3 credit(s)**

### Management and Human Resource Development:

- **IDE 761 - Strategies in Educational Project Management 3 credit(s)**
- **IDE 764 - Planned Change and Innovation 3 credit(s)**

### Additional Information

Each course is 3 credits

## School Counseling, CAS

## Contact

Melissa Luke, Ph.D. 259 Huntington Hall, 315-443-2266, mmluke@syr.edu

The Certificate of Advanced Study (C.A.S.) prepares students in more scholarly depth than does the Master's degree and meets the New York State academic requirements for permanent school counselor certification. The C.A.S. is appropriate both for students with a Master's in school counseling and for students who have a Master's in another specialty within counseling, but wish to pursue New York State certification as a school counselor.

### Requirements for the C.A.S. are:

- A master's degree in counseling;
- A minimum of 60 credits beyond the baccalaureate, of which 30 credits must be taken at Syracuse University;
- Satisfactory completion of a special project (typically completed as part of COU 749).

In order to better meet the career needs and interests of our students, the Counseling and Human Services faculty voted to allow current students the opportunity to apply to the Certificate in Advanced Study (C.A.S.) program in School Counseling following successful completion of practicum. The revised application process will allow our current students increased opportunities for course selection if they are interested in, and admitted into the C.A.S. program. As has always been the case, the C.A.S. in School Counseling

which leads to state credentialing as a school counselor is open to students across the School Counseling, Student Affairs, and Clinical Mental Health master's programs.

Programs include extensive fieldwork opportunities in which students gain hands-on experience working with students and clients in a wide range of counseling and educational settings. Students work closely with their advisor, and the fieldwork coordinator to identify settings that meet their individual interests and career goals. The faculty is nationally recognized for their leadership in the profession and all classes are taught by skilled experts and experienced clinicians.

The faculty is deeply committed to the growth and development of their students; faculty work closely with both our master's and doctoral students. Students are trained in the most current information in counseling and provided the opportunity to develop their skills and succeed in their chosen area of specialization. The department's goal is to prepare national leaders in counseling. It seeks to develop a diverse group of professionals who will excel in knowledge, skills, commitment, and service in a wide range of educational and community settings.

### S.U. Re-Accredited through 2016:

After an extensive review of the Counseling and Human Services Programs, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) recently announced that Syracuse University's programs have met all expectations, and granted us the full eight year accreditation period for all of our accredited master's degree programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling), as well as our Counselor Education Ph.D. program. This means each of these programs will be accredited by CACREP until 2016. This decision is a testament to the quality education offered here at Syracuse University, and a signal of support for the work that is done here.

### Note:

\*\* There are no required courses for the C.A.S. program. Students are encouraged to take coursework coincident with their counseling interests.

## School District Business Leadership (Professional Certification), CAS

### Contact:

Joseph Shedd, 150 Huntington Hall, 315 443-2685, jbshedd@syr.edu

The School District Business Leadership C.A.S. program (SDBL) provides a comprehensive program in school business management provided jointly by the School of Education's Department of Teaching and Leadership and the Maxwell School of Public Affairs Department of Public Administration. The program leads to New York State certification as a School District Business Leader.

School district business leaders are typically the chief financial officers of school districts and often manage a broad range of non-instructional functions, such as budgeting, accounting, facilities management, information technology, procurement, human resources (personnel) management, labor negotiations, food service and transportation. Besides meeting the requirements for SDBL certification in New York State, the program provides coursework and field experiences that prepare candidates to fulfill all professional functions of school business management specified by the Association of School Business Officials (ASBO). Besides an introductory course in Issues and Practices in School District Leadership, the program includes coursework in six areas of study:

1. Financial management and management of ancillary services.
2. Education leadership and management.
3. Education law.
4. Human resource management.
5. Microeconomics.
6. Program evaluation.

## Certificate Requirements

A required practicum experience (a 600-hour clinical internship, typically spread over spring, summer and early fall semesters) completes the course structure of the program.

To receive certification as a school district business leader a student must have 60 graduate credits and a Master's degree. The SDBL program itself consists of courses (including the internship) accounting for 37 of these graduate credits. The number of courses that a student is required to take varies depending on her/his previous graduate experience. Candidates who have either completed or are concurrently pursuing a Certificate of Advanced Study in Educational Leadership or a Master's of Public Administration are likely to have already completed some courses required under the SDBL program. Each student will take at least thirteen (13) graduate credits toward the SDBL that are not included in some other program. Certification and (under most circumstances) program completion also require that the candidate pass a New York State administered examination in School District Business Leadership.

## GRADUATE COURSE CATALOG

The following courses are required by the program. (We have marked below those that are either required or elective courses in our CAS program in educational leadership for school district and school building leaders (CAS) or our MPA program in public administration (MPA), which candidates may already have taken or may be taking simultaneously to secure those degrees.):

- **EDA 752 - Leadership for Organizational and Institutional Development 3 credit(s)** (CAS)
- **EDA 762 - Leadership for Inclusive Schooling 3 credit(s)** (CAS)
- **EDA 735 - Human Resource Management in Public Education 3 credit(s)**
- **EDA 782 - Issues and Practices in District Leadership 3 credit(s)** (CAS)
- **EDA 792 - Legal Basis of Education 3 credit(s)** (CAS)
- **IDE 641 - Techniques in Educational Evaluation 3 credit(s)**
- **PAI 709 - Research Consultancy in Public Diplomacy 3 credit(s)** (MPA)
- **PAI 722 - Quantitative Analysis 3 credit(s)** (MPA)
- **PAI 723 - Economics for Public Decisions 3 credit(s)** (MPA)
- **PAI 731 - Financial Management in State and Local Governments 3 credit(s)** (MPA)
- **PAI 735 - State and Local Government Finance 3 credit(s)** (MPA)
- **PAI 791 - Education Financial Administration 3 credit(s)**
- **PAI 792 - Managing School District Non-Instructional Functions 3 credit(s)**
- **EDA 899 - Internship in Educational Administration and Supervision 3-4 credit(s)** (This internship seminar is completed at the end of the program)

### American Sign Language

#### ASL 600 - Selected Topics

##### *School of Education*

1-6 credit(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. Repeatable

#### ASL 601 - American Sign Language I for Professional Practice

##### *School of Education*

3 credit(s) Every semester

Introduction to American Sign Language 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 602 - American Sign Language II for Professional Practice

##### *School of Education*

3 credit(s) At least 1x fall or spring

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 601

#### ASL 603 - American Sign Language III for Professional Practice

##### *School of Education*

3 credit(s) At least 1x fall or spring

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 602

### Cultural Foundations of Education

#### CFE 600 - Selected Topics

##### *School of Education*

1-6 credit(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. Repeatable

#### CFE 601 - Intro Phil of Education

##### *School of Education*

3 credit(s) At least 1x fall or spring

Philosophical analysis of educational concepts and practices. Issues underlying conflicting educational ideologies of teaching and learning, knowing, judging, valuing, citizenship, community, and philosophical anthropology.

#### CFE 605 - Race, Philosophy and Education

##### *School of Education*

3 credit(s) Irregularly

Questions around race, racism, and education are explored from the perspective of philosophers and philosophers of education. Examines the "politics of recognition," "colorblind ideology," the social construction of race, essentialism,

intersectionality, whiteness, and white privilege.

#### CFE 611 - Intro Comparative Ed

##### *School of Education*

3 credit(s) Irregularly

Comparative methodology. Problems in education comparatively and from a cross-cultural point of view.

#### CFE 614 - Critical Issues in Dis/Ability and Inclusion

##### *School of Education*

3 credit(s) At least 1x fall or spring

Crosslisted with: DSP 614

Social construction of disability and special education. Disability autobiographies, research literature, parent narratives, legal/policy issues, shifting notions and cultural context of disability, and school and community inclusion. Review of disability classifications as they relate to these issues.

#### CFE 621 - History of Education in the United States

##### *School of Education*

3 credit(s) At least 1x fall or spring

History of educational institutions from the Puritan colonies to the present. Factors that led to the development of the unique system of education in the United States.

#### CFE 631 - Introduction to Sociology and Anthropology of Education

##### *School of Education*

3 credit(s) Irregularly

Concepts, levels of organization, and processes relevant to the analysis of education. Sociological and anthropological studies of the school, its personnel, and its internal and external systems.

#### CFE 640 - Inequality and Intergroup Relations in Education

##### *School of Education*

3 credit(s) At least 1x fall or spring

Examines theory, research, and practice important for intergroup relations in education, within context of racial, ethnic, and class inequalities in broader U.S. society. Covers conceptual foundations and frameworks for social justice education and intergroup dialogue.

#### CFE 662 - Youth, Schooling and Popular Culture

##### *School of Education*

3 credit(s) Irregularly

Crosslisted with: WGS 662

Double Numbered with: CFE 362

Positioned where school, media, and youth cultures intersect. How schools and media

## GRADUATE COURSE CATALOG

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 688 - Social Policy and Disability**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: DSP 688, SPE 688

Trends and issues in the field and forces within society (political, economic, cultural, historical, and social) that affect people with disabilities.

### **CFE 700 - Selected Topics**

#### **School of Education**

1-6 credit(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. Repeatable

### **CFE 701 - Education and Social Philosophy**

#### **School of Education**

3 credit(s) Irregularly

Philosophical problems underlying alternative theories of society, citizenship, and the individual. Each in relation to educational policy and practice.

### **CFE 710 - Critical Whiteness Theory and Education**

#### **School of Education**

3 credit(s) Irregularly

This course examines a small but growing body of philosophical scholarship that critically engages whiteness in order to better understand white subjectivity, white complicity, white resistance to knowing, and white agency. Educational implications of this scholarship are emphasized.

### **CFE 723 - Representation of Ability and Disability**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: DSP 724

Constructions, meanings, and markers of ability/disability. How representation relates to educational research and practice.

### **CFE 725 - Gender and Race in Higher Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: HED 725, WGS 725

Examines the influence of gender and race in historical and contemporary higher education from interdisciplinary perspective; considers dynamics of power, privilege, and oppression; includes topics related to student and faculty

experiences, and curricular issues.

### **CFE 731 - Intermediate Sociology and Anthropology of Education**

#### **School of Education**

3 credit(s) Irregularly

Sociological and anthropological analyses of education. Prevailing perspectives of people, society, and culture; their implications for various roles in and functions of education.

### **CFE 775 - Gender, Sexuality, and Disability**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: DSP 775

Interdisciplinary course, explores points of contact and conflict between feminist theory and disability studies. Embodiment, representation, and voice explored from a variety of disciplines and genres.

### **CFE 776 - Gender, Education & Culture**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: DSP 776, WGS 776

How gender is culturally constructed in American society with particular reference to education broadly conceived; how race and social class influence gender analysis.

### **CFE 801 - Educational Theory and the Social Sciences**

#### **School of Education**

3 credit(s) Irregularly

Some major works of sociological and anthropological thought as works of educational theory. Writings of Durkheim, Weber, Parsons, and Manheim as they bear directly upon education. Enrollment limited.

### **CFE 809 - Problems of Educational Theory**

#### **School of Education**

3 credit(s) Upon sufficient interest

Criteria, construction, and application of educational theories. Problems with a theoretical basis. May be repeated for credit as the problems for analysis change.

### **CFE 810 - Foundations of Moral Education**

#### **School of Education**

3 credit(s) Upon sufficient interest

Foundations of moral learning and elements of its pedagogy as rooted in major texts of Western moral reflection, including Plato's *The Republic*, Nichomechean Ethics, Durkheim's *Lecture on Moral Education*, and selections from Kant.

### **CFE 813 - Multicultural Narratives and Educational Change**

#### **School of Education**

3 credit(s) Irregularly

Narratives from diverse ethnic/racial, gendered, and cultural positions. Questions of representation in narrative analysis. Place of narrative in social sciences. Role of narrative in educational change. Relationships of stories to theory, self to other.

### **CFE 821 - Historiography in Education**

#### **School of Education**

3 credit(s) Irregularly

Historiographic grounding for historical research methods. Seminar on the traditional categories, methods, and tools of historical research. Using student-generated topics, the seminar explores the consequences of common methodological choices.

### **CFE 900 - Seminar in Philosophy of Education**

#### **School of Education**

3 credit(s) Upon sufficient interest

Different topic selected each semester. Enrollment limited to 10 students. Repeatable

### **CFE 910 - Seminar in Problems of International and Comparative Education**

#### **School of Education**

3 credit(s) Irregularly

Substantive problems and topics, such as educational planning, education and development, international educational relations. Repeatable

### **CFE 920 - Seminar in History of Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Different educational topic each semester. Enrollment limited to 10 students. Repeatable

### **CFE 930 - Sociology and Anthropology of Education: Seminar in Special Topics**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: DSP 930

Dialogue between students of education and those of sociology, anthropology, and related fields on issues of mutual interest. Evaluation of potential contributions of various fields to the solution or clarification of these issues. Repeatable

## **Counseling**

# GRADUATE COURSE CATALOG

## **COU 585 - General Counseling Methods**

### **School of Education**

3 credit(s) At least 1x fall or spring  
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.

## **COU 600 - Selected Topics in Counseling**

### **School of Education**

1-6 credit(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. Repeatable

## **COU 612 - Introduction to Professional Counseling**

### **School of Education**

3 credit(s) At least 1x fall or spring  
The historical development of counseling, legal and ethical issues, professional identity, and professional counseling roles and practices in various settings.

## **COU 614 - Group Work in Counseling**

### **School of Education**

3 credit(s) Every semester  
Principles of group dynamics, group developmental stage theory, leadership styles, and group leadership methods, with a focus on the integration of practice and theory in multiple group contexts. Course includes student participation in a within-class group experience. Permission of instructor.

## **COU 624 - Theories of Counseling**

### **School of Education**

3 credit(s) At least 1x fall or spring  
Counseling theories: their psychological assumptions, the therapeutic process inherent in each, and the expected outcomes of successful counseling.

## **COU 626 - Social and Cultural Dimensions of Counseling**

### **School of Education**

3 credit(s) At least 1x fall or spring  
Theory and research related to counseling persons of different cultural identities. A broad definition of cultural as premise for increasing student awareness and knowledge of how culture affects the counseling process.

## **COU 628 - Life-Span Human Development**

### **School of Education**

3 credit(s) At least 1x fall or spring  
Developmental theory and research pertaining to change and consistency across the lifespan. Focus on the facilitation of human development for persons of varying background and experience. Application of developmental principles to counseling practice.

## **COU 642 - Career Development**

### **School of Education**

3 credit(s) At least 1x fall or spring  
The meaning of work for individuals and within cultural contexts; theories of career development; using computers in career counseling; vocational decision making; and career counseling strategies for working with diverse populations including persons with disabilities.

## **COU 644 - Counseling Prepracticum**

### **School of Education**

3 credit(s) At least 1x fall or spring  
Introduction to counseling skills and techniques, including assessment, relationship building, goal setting, and therapeutic intervention. Extensive use of video and audio taping of role-played counseling interactions. Permission of instructor.

## **COU 645 - Counseling Prepracticum II: Advanced Multicultural Counseling Skills**

### **School of Education**

3 credit(s) At least 1x fall or spring  
Clinical and case conceptualization skills for working with diverse populations. Race, ethnicity, culture, gender, sexual orientation, ability, and religion, with focus on applicability for counseling practice.  
PREREQ: COU 644  
COREQ: COU 626

## **COU 646 - Assessment in Counseling**

### **School of Education**

3 credit(s) At least 1x fall or spring  
Analysis and interpretation of selected interest and personality tests, as well as assessment environments. Synthesis of comprehensive case data and report writing in educational, vocational, and general counseling. Assessment of individuals and families.

## **COU 651 - Crisis Counseling**

### **School of Education**

3 credit(s) Only during the summer  
Review of the theory, history and practice of crisis counseling. Emphasis is placed on the study of techniques and interventions appropriate for use in a variety of crisis situations.

## **COU 672 - Counseling Children and Adolescents**

### **School of Education**

3 credit(s) Only during the summer  
Specialized knowledge, skills, and awareness necessary for counseling children and adolescents within individual, group, and family counseling modalities. Developing a therapeutic relationship and implementing effective interventions.

## **COU 675 - Substance Abuse Counseling**

### **School of Education**

3 credit(s) Irregularly  
Biological, psychological, and social factors contributing to chemical dependency. Overview of different theoretical approaches to substance abuse counseling. Discussion, demonstration, and practice of counseling strategies for prevention and intervention.

## **COU 678 - Child Centered Play Therapy**

### **School of Education**

3 credit(s) Irregularly  
Theoretical and applied philosophical understanding of child-centered play therapy. Reflective listening, tracking, limit setting, selecting props, structuring sessions, identifying themes, using consultation, etc., to conduct individual, dyadic, group and filial therapy. Cross-cultural relationships.

## **COU 700 - Selected Topics in Counseling**

### **School of Education**

1-6 credit(s)

## **COU 723 - Psychological, Social, and Cultural Aspects of Disability**

### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: DSP 723  
Survey of the psychological, social, and cultural dimensions of disability with a focus on implications of social construction of disability for the adjustment of persons with disabilities in educational, rehabilitation, and community settings.

## **COU 727 - Foundations of Mental Health Counseling**

### **School of Education**

3 credit(s) At least 1x fall or spring  
Roles, functions, and contexts for mental health counselors working in community agencies. A review of dimensions, interventions, and characteristics of agencies serving diverse populations. Foundations of mental health consultation, prevention, and program evaluation.

## GRADUATE COURSE CATALOG

### **COU 729 - The Counselor in the Schools**

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8

Roles and functions of school counselors. Analysis of the history, development, implementation and evaluation of school counseling programs, K-12.

### **COU 749 - Leadership and School Counseling Program Implementation**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Critical issues in schools. Implementation of comprehensive K-12 developmental school counseling program: models, strategies, and interventions to work effectively as school counselors at different school levels. School counseling majors only.

PREREQ: COU 729

COREQ: COU 790

### **COU 750 - Practicum in Counseling**

#### **School of Education**

3 credit(s) Every semester

A one-semester, 100-hour, clinical placement to advance the student's counseling skills. Video or audio taping at the practicum site is required for supervision. Students receive weekly individual and group supervision on campus.

PREREQ: COU 624 AND COU 644

Repeatable 1 time(s), 6 credits maximum

### **COU 758 - Research Methods**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Methods, strategies, and issues related to research. Includes evaluating knowledge claims, quantitative and qualitative research designs, statistical analyses, and research ethics. Critical review of the professional literature for application to professional practice.

### **COU 790 - Internship in Counseling**

#### **School of Education**

3-6 credit(s) Every semester

A supervised field placement in a school, agency, college, or rehabilitation setting during which students assume the varied roles of counselor. Weekly individual supervision and group supervision are required. Internships must meet all accreditation guidelines.

PREREQ: COU 750

Repeatable 1 time(s), 6 credits maximum

### **COU 800 - Selected Topics**

#### **School of Education**

1-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **COU 860 - Advanced Practicum in Counseling**

#### **School of Education**

3 credit(s) Every semester

Supervised counseling experience for doctoral students. Intended to expand skill sets and level of ability through involvement in complex and diverse counseling situations Empirically supported treatment is emphasized.

Repeatable 1 time(s), 6 credits maximum

### **COU 872 - Advanced Theory and Practice in Group Work**

#### **School of Education**

3 credit(s) Irregularly

An advanced graduate course that reviews seminal contributions to group work as well as current research trends. Includes supervised experience in facilitating personal growth groups. Permission of instructor.

### **COU 874 - Theory and Practice of Clinical Supervision**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Major conceptual approaches, methods, and techniques; evaluation; and ethical and legal issues. Strategies for working with supervisees representing diverse backgrounds, developmental levels, and learning styles. Supervised practice opportunities included.

Repeatable 1 time(s), 6 credits maximum

### **COU 876 - Seminar in Ecological Counseling**

#### **School of Education**

3 credit(s) Irregularly

Client issues as embedded within multiple and interrelated systems, including political and economic structures. Facilitates pedagogic technological competence; Permission of instructor.

### **COU 878 - Seminar in Counseling Theory**

#### **School of Education**

3 credit(s) Irregularly

Examines psychological theory construction, compares various theoretical formulations of the counseling process, and emphasizes participants' critical analysis of how such theories relate to one's personal theoretical orientation and counseling practice. Theories representing distinct literatures within counseling are included. Permission of instructor.

### **COU 882 - Seminar in Professional Issues**

#### **School of Education**

3 credit(s) Irregularly

Designed for advanced graduate students, this course explores key issues currently faced by counselors, supervisors, and counselor educators. Topics are identified through a review of current professional literature.

### **COU 886 - Multivariate Research Methods**

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8

Crosslisted with: EDU 886

Discussion and critique of multivariate research methods, designs, and strategies as applied in contemporary educational research. Practical applications in multivariate research design, implementation, and interpretation of data.

### **COU 910 - Doctoral Research Seminar**

#### **School of Education**

0-3 credit(s) At least 1x fall or spring

Issues related to identifying research questions, research design, implementation, dissemination, and review. Specific topics to be discussed are determined jointly by faculty and students to ensure relevance to research development needs of participants. May not be repeated for credit. Repeatable 2 time(s), 9 credits maximum

### **COU 950 - Doctoral Internship**

#### **School of Education**

0-6 credit(s) Every semester

Students must be engaged in internship experiences involving counseling, clinical supervision, and teaching over the course of their doctoral study. Individual and group supervision are required as part of internship. Repeatable 3 time(s), 12 credits maximum

## **Disability Studies**

### **DSP 500 - Selected Topics**

#### **School of Education**

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **DSP 600 - Selected Topics: Disability Studies Program**

#### **School of Education**

1-6 credit(s)

Repeatable

## GRADUATE COURSE CATALOG

### **DSP 614 - Critical Issues in Dis/Ability and Inclusion**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: CFE 614

Social construction of disability and special education. Disability autobiographies, research literature, parent narratives, legal/policy issues, shifting notions and cultural context of disability, and school and community inclusion. Review of disability classifications as they relate to these issues.

### **DSP 621 - Sociology of Disability**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: SPE 621

Sociological perspectives on disability treatment approaches, and social policy toward the disabled. Personal and public forms of stereotyping, prejudices, and discrimination.

### **DSP 632 - Disability, Technology, and New Media**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Trends and issues in Internet technologies and new media that affect people with disabilities.

Constructions of ability/disability in mediated contexts.

### **DSP 644 - Significant Disabilities: Shifts in Paradigms and Practices**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: SPE 644

Curriculum development, methods, materials, and instructional strategies, emphasizing inclusive settings. Discrimination encountered; history and experiences (e.g., eugenics, racial stereotypes, gender roles, and ideas of progress); perspective of those with significant disabilities.

### **DSP 652 - Assistive Technologies for Integrating Students with Special Needs**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: IDE 652, SPE 652

Development of integrative technologies and strategies that can be functional in both educational and work environment. Support and adaptation for individuals with physical, educational, and language challenges.

### **DSP 657 - Deafness and Disability**

#### **School of Education**

3 credit(s) Only during the summer

Double Numbered with: DSP 357

Examines the relationship between deaf and disability studies and explores deafness as both a social construction and an identity. Current and controversial issues in d/Deafness and disability. Additional work required of graduate students.

### **DSP 669 - Disability, Food, and Health**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: HTW 669

Major theories, historical events, law, services, and research related to health and wellness for persons with disabilities including disparities, health promotion, ethics, aging, violence, and disaster preparedness.

### **DSP 688 - Social Policy and Disability**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: CFE 688, SPE 688

Trends and issues in the field and forces within society (political, economic, cultural, historical, and social) that affect people with disabilities.

### **DSP 723 - Psychological, Social, and Cultural Aspects of Disability**

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: COU 723

Survey of the psychological, social, and cultural dimensions of disability with a focus on implications of social construction of disability for the adjustment of persons with disabilities in educational, rehabilitation, and community settings.

### **DSP 724 - Representation of Ability and Disability**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: CFE 723

Constructions, meanings, and markers of ability/disability. How representation relates to educational research and practice.

### **DSP 775 - Gender, Sexuality, and Disability**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: CFE 775

Interdisciplinary course, explores points of contact and conflict between feminist theory and disability studies. Embodiment, representation, and voice explored from a variety of disciplines and genres.

### **DSP 776 - Gender, Education & Culture**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: CFE 776, WGS 776

How gender is culturally constructed in American society with particular reference to education broadly conceived; how race and social class influence gender analysis.

### **DSP 900 - Selected Topics**

#### **School of Education**

1-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **DSP 930 - Sociology and Anthropology of Education: Seminar in Special Topics**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: CFE 930

Dialogue between students of education and those of sociology, anthropology, and related fields on issues of mutual interest. Evaluation of potential contributions of various fields to the solution or clarification of these issues.

Repeatable

## **Education Leadership**

### **EDA 600 - Selected Topics**

#### **School of Education**

1-6 credit(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.

Repeatable

### **EDA 634 - Collaboration/Cooperation in Schools**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: SPE 634

Formal specialized services and informal support networks that promote collaboration between teachers, administrators, therapists, paraprofessionals, students, families, and community members.

### **EDA 641 - Techniques in Educational Evaluation**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: IDE 641

Applied, programmatic techniques for evaluating educational/training programs and projects. Units focus on planning, client relations, problem analysis, data collection and analysis, reporting, evaluation management, and ethics.

## GRADUATE COURSE CATALOG

### EDA 670 - Experience Credit

#### *School of Education*

1-6 credit(s)  
Repeatable

### EDA 700 - Selected Topics

#### *School of Education*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### EDA 712 - Leadership for Diverse Learners and Communities

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Conceptual overview of leadership in education and other contexts. Tacit conceptions and current approaches in light of theoretical and research bases for practice. Educational Leadership core. Introduction to the roles and challenges of leaders in public education. Themes include integration of theory and practice, serving diverse student populations, and developing school visions, collaborative cultures, and ethical platforms. Permission of instructor.

### EDA 722 - Curriculum and instructional leadership for Equity and Excellence

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Explores issues and trends affecting curriculum and instructional practices in American schools, and the roles and skills of school leaders in promoting culturally responsive pedagogy, equity and high levels of achievement for all learners.  
PREREQ: EDA 712

### EDA 725 - Current Research on Teaching

#### *School of Education*

3 credit(s) Irregularly  
Crosslisted with: EDU 725  
Political, historical, and methodological aspects of elementary and secondary schools. Skills in analysis, synthesis, and criticism developed.

### EDA 727 - Curriculum Studies

#### *School of Education*

3 credit(s) Irregularly  
Crosslisted with: EDU 727  
Curriculum decision making as a function of the school's role in society. Theory and research in human growth and learning. Models of organization and instruction.

### EDA 732 - Ldrshp for Adult Develop

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Roles of educational leaders in the professional development and supervision of adults in school systems, pre-kindergarten through 12th grade. Educational Leadership core.  
PREREQ: EDA 712

### EDA 735 - Human Resource Management in Public Education

#### *School of Education*

3 credit(s) Irregularly  
Strategic implications, technical functions, and emerging issues in human resources management, including collective bargaining, in public education. Impact of human resource management policies and practices on educational quality.

### EDA 741 - Concepts and Issues in Educational Evaluation

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Crosslisted with: IDE 741  
Major theoretical approaches to evaluation of educational products, personnel, projects, programs and policies are reviewed, analyzed, and critiqued. Pragmatic implications for educational and social policy, as well as evaluation practice are highlighted.

### EDA 742 - Leadership for Literacy Development

#### *School of Education*

3 credit(s) Odd academic yr e.g. 2007-8  
Explores issues and trends in the development of PreK12 students' literacy skills, and the roles and skills of school leaders in coordinating development of comprehensive approaches to literacy across all areas of instruction.  
PREREQ: EDA 712

### EDA 743 - Cost-Effectiveness in Instruction and Training

#### *School of Education*

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: IDE 743  
Planning, evaluation, program cost analysis, and decision making in education and training contexts. Defining and determining program effectiveness, linking cost and effectiveness, and case studies.

### EDA 748 - Theory and Practice in Mentoring Teachers

#### *School of Education*

3 credit(s) Irregularly  
Crosslisted with: EDU 748

Concepts and practices in mentoring among teachers. Induction programs at the state and local levels. Programs as part of professional development. Qualities and skills of mentors.

### EDA 752 - Leadership for Organizational and Institutional Development

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Roles of educational leaders in developing structures and processes promoting learning. Theoretical and research bases of educational organization practices. Educational Leadership core. Addresses the roles of school leaders in developing, maintaining, and improving school structures and processes that support the continuous learning of all children and adults, including relationships with families and schools' various external constituencies.  
PREREQ: EDA 712

### EDA 761 - Strategies in Educational Project Management

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Crosslisted with: IDE 761  
Management tactics, skills, procedures, and tools for planning and administering educational projects. Includes planning, implementing, maintaining, and closing projects; investigating project management issues on scope, changes, and quality.

### EDA 762 - Leadership for Inclusive Schooling

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Addresses the roles of school leaders in developing and managing systems that provide effective and inclusive education to students with diverse needs, including students with disabilities, English language learners, and students facing other learning challenges  
PREREQ: EDA 712

### EDA 764 - Planned Change and Innovation

#### *School of Education*

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: IDE 764  
Social change in education, models of the change process, diffusion and implementation strategies. Case study analyses in schools and higher education and other organizational settings.

### EDA 772 - Issues and Practices in Building Leadership

#### *School of Education*

3 credit(s) At least 1x fall or spring

## GRADUATE COURSE CATALOG

Exploration of the functions of school principals, focusing on how they can balance different roles and promote high expectations and respect for all students, collaboration among staff and families, and effective management of resources.  
PREREQ: EDA 712

### **EDA 780 - Workshop in Educational Administration**

**School of Education**  
1-3 credit(s) Irregularly  
Repeatable

### **EDA 782 - Issues and Practices in District Leadership**

**School of Education**  
3 credit(s) At least 1x fall or spring  
Exploration of the roles of school superintendents and other district leaders, focusing on how they oversee various technical functions, mediate relationships with external authorities and constituencies, and provide needed support for teaching and learning.  
PREREQ: EDA 712

### **EDA 792 - Legal Basis of Education**

**School of Education**  
3 credit(s) At least 1x fall or spring  
School law as set forth in the common law, state and federal constitutions, statutes, judicial decisions, and the rules and regulations of state departments and local units of administration.

### **EDA 800 - Selected Topics**

**School of Education**  
1-3 credit(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.  
Repeatable

### **EDA 822 - Assessment of Teaching**

**School of Education**  
3 credit(s) Irregularly  
Crosslisted with: EDU 822  
Issues and concepts in assessment of teaching and teachers. Skill and experience developed from political, psychological, and sociological perspectives.

### **EDA 890 - Seminar in Educational Administration**

**School of Education**  
3 credit(s) Irregularly  
Theory in educational administration or case studies in educational administration, as announced for a given semester. Enrollment limited to students with previous training in administration.  
Repeatable 1 time(s), 6 credits maximum

### **EDA 898 - Internship in School District Business Leadership**

**School of Education**  
1-4 credit(s) At least 1x fall or spring  
Provides candidates for School Business Leader certification with practical experience working in the business office of a school district under the supervision of a school business official. Student must have completed nine School District Business Leadership courses.  
Repeatable 1 time(s), 4 credits maximum

### **EDA 899 - Internship in Educational Administration and Supervision**

**School of Education**  
3-4 credit(s) Every semester  
Practical administrative experience in an actual school situation under direction of an administrator and a professor of educational administration.  
Repeatable 1 time(s), 4 credits maximum

### **EDA 970 - Experience Credit**

**School of Education**  
1-6 credit(s)  
Repeatable

## **Education (General)**

### **EDU 500 - Selected Topics**

**School of Education**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **EDU 508 - Student Teaching**

**School of Education**  
2-15 credit(s) Every semester  
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.  
Repeatable

### **EDU 522 - Social Studies and Democracy: The Reconstruction of Education**

**School of Education**  
3 credit(s) At least 1x fall or spring  
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.

### **EDU 535 - Quality Infant Care Giving**

**School of Education**  
2-3 credit(s) Only during the summer  
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.

### **EDU 600 - Selected Topics**

**School of Education**  
1-6 credit(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.  
Repeatable

### **EDU 601 - Methods and Practice in Teaching Art**

**School of Education**  
4 credit(s) Every semester  
Double Numbered with: EDU 301  
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 worked required of graduate students.

### **EDU 602 - Methods and Curriculum in Teaching Art**

**School of Education**  
4 credit(s) Every semester  
Double Numbered with: EDU 302  
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.

### **EDU 603 - Introduction to Qualitative Research**

**School of Education**  
3 credit(s) Every semester  
Crosslisted with: SOC 614, WGS 614  
Developing and using qualitative methods used by sociologists to conduct research. Underlying assumptions and limitations.



## GRADUATE COURSE CATALOG

### **EDU 604 - World Music and the Interdisciplinary Curriculum**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: MUE 604

Examination of historical and social perspectives of world music in diverse cultural contexts.

Strategies for teachers to develop and facilitate interdisciplinary curricula through examination of materials and resources featuring music from around the world.

### **EDU 606 - Understanding Learning and Teaching**

#### **School of Education**

4 credit(s) Only during the summer

Explore personal and professional constructs related to learning and teaching diverse students; understand theory construction; develop an emerging practical theory. Consider the contexts of schools and communities. Includes field placement. May not also receive credit for EDU 605, 607; EED 604 or 606.

### **EDU 610 - The American School**

#### **School of Education**

3 credit(s) Every semester

Double Numbered with: EDU 310

Issues that impinge on teachers, teaching, and schools in today's society. May not be repeated for credit.

### **EDU 611 - Assessment in Music Education**

#### **School of Education**

1 credit(s) At least 1x fall or spring

Crosslisted with: MUE 611

Examines a diverse selection of assessment methods for student learning within music education settings. Strategies for future instruction planning; instructional adaptations based on data gathered through teacher-created assessment tools.

### **EDU 616 - Understanding Educational Research**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: HED 616

For master's degree and beginning doctoral students who have had little, if any, exposure to research methods. Quantitative and qualitative methods are studied in the context of education.

### **EDU 621 - Behavior Techniques in Music Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Double Numbered with: EDU 421

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 622 - International Education for Transformation**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Double Numbered with: EDU 321

Theories of international development applied to international education. How nationalism, race, gender, culture, and class shape educational opportunity. Cultural and social transformation strategies. Additional work for graduate students.

### **EDU 647 - Statistical Thinking and Applications**

#### **School of Education**

3 credit(s) Every semester

The fundamental concepts, basic techniques, and logic of quantitative analysis in education and social science. Introductory inferential statistical methods covered include chi-square, t-test; basic ANOVA, correlation and multiple correlation.

### **EDU 655 - Education Tests and Measurements**

#### **School of Education**

3 credit(s) Irregularly

Basic theory under-lying construction, evaluation, and use of educational tests. Construction and evaluation of achievement tests. Guided practice in test construction and test score analysis.

### **EDU 660 - Field Workshop**

#### **School of Education**

3-6 credit(s) Upon sufficient interest

For elementary- and secondary-school administrators and teachers to work in their own schools toward improvement of their programs. Staff members available to give continual or periodic direction and consultation. Further information may be obtained from the Extended Campus Office, Syracuse University, Huntington Hall, Syracuse NY 13244. Repeatable

### **EDU 664 - Creating Safe and Peaceful Schools**

#### **School of Education**

3 credit(s) Irregularly

Focus on building caring, secure, and nurturing learning communities and creating classroom and school climates that encourage student focus, productivity, and cooperation. Positive approaches for supporting individual students and helping them to manage conflict (e.g., self-determination, peer mediation).

### **EDU 700 - Special Topics in Education**

#### **School of Education**

1-6 credit(s) Irregularly

Special topics of current interest in the field of professional education for depth study by graduate students.

Repeatable

### **EDU 725 - Current Research on Teaching**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: EDA 725

Political, historical, and methodological aspects of elementary and secondary schools. Skills in analysis, synthesis, and criticism developed.

### **EDU 727 - Curriculum Studies**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: EDA 727

Curriculum decision making as a function of the school's role in society. Theory and research in human growth and learning. Models of organization and instruction.

### **EDU 737 - Quantitative Research Design**

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5

Seminar addresses key issues, strengths, and limitations of various quantitative research designs, and integrates design with theory, sampling, measurement, and statistical analysis, using examples from the research literature in students' program areas.

PREREQ: EDU 647

### **EDU 748 - Theory and Practice in Mentoring Teachers**

#### **School of Education**

3 credit(s) Irregularly

Crosslisted with: EDA 748

Concepts and practices in mentoring among teachers. Induction programs at the state and local levels. Programs as part of professional development. Qualities and skills of mentors.

### **EDU 760 - Workshop in Education**

#### **School of Education**

1-6 credit(s) Upon sufficient interest

For teachers, administrators, and other school personnel to work on campus toward solution of specific problems in elementary and secondary education in their schools. Each workshop has a core or central theme. Parallel to EDU 660. Repeatable

## GRADUATE COURSE CATALOG

### **EDU 778 - Narrative Inquiry in Research and Creative Practice**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
An exploration of the use of narrative methods in research and creative practice. Conducted in the form of a creative workshop, participants will learn to decode stories as data, and construct experiential data as stories.

### **EDU 781 - The Institutions and Processes of Education I**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Comprehensive study of learning and learners, the institutions of education, the public's interest in education from the perspectives of political economy, sociology, psychology, history, and philosophy. Uses of data in judgment.

### **EDU 791 - Advanced Seminar in Quantitative Research Methods I**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Reviews, integrates and extends concepts and techniques from introductory statistics and research design. Focuses on intermediate-level statistical techniques including AVOVA, multiple regression, discriminant analysis, and path analysis. Training in SPSS using extant data sets. Student must have completed a graduate course in statistics.  
PREREQ: EDU 647

### **EDU 800 - Selected Topics**

#### **School of Education**

1-6 credit(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.  
Repeatable

### **EDU 810 - Advanced Seminar in Qualitative Research I**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: SOC 811, WGS 812  
Expand fieldwork skills and increase theoretical understanding: emphasis on "thinking qualitatively;" intensive fieldwork.  
PREREQ: EDU 603/SOC 614

### **EDU 815 - Advanced Seminar in Qualitative Research II**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: SOC 812  
Applications to issues of special education and related educational or human service settings.

PREREQ: EDU 810 OR SOC 811 OR WGS 812

### **EDU 820 - Program Development in Teacher Education**

#### **School of Education**

3 credit(s) Irregularly  
Theoretical models, experimental programs. Historical perspective on recent innovative movements. Development in local pre-service/in-service program.

### **EDU 822 - Assessment of Teaching**

#### **School of Education**

3 credit(s) Irregularly  
Crosslisted with: EDA 822  
Issues and concepts in assessment of teaching and teachers. Skill and experience developed from political, psychological, and sociological perspectives.

### **EDU 824 - Practices, Problems, and Prospects in the Field of Teacher Education**

#### **School of Education**

3 credit(s) Irregularly  
Continuum of practices: recruitment preparation, induction, continuing professional development. Developing a frame of reference regarding teacher education.

### **EDU 833 - Critical Curriculum Theory**

#### **School of Education**

3 credit(s) Upon sufficient interest  
Radical traditions in curriculum theory in the Americas and Europe. Critical, radical, and progressive approaches concerned with issues of power, language access, justice, and equity. Critical theorists, feminists, multiculturalists, culturally relevant pedagogues, and post-structuralists.

### **EDU 835 - Learning Theories in Education**

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: MTD 835  
Examination of cognitive science, constructivism, social cognition, and other learning theories and their influence on how educators view learning and have conducted research about learning.

### **EDU 841 - The Nature and Design of Inquiry**

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: IDE 841  
Overview of social, academic, and psychological aspects, including fundamental mental abilities of inquiry. Introduction to full range of quantitative

and qualitative inquiry strategies and practice in research topic identification, problem formation, and study design.

### **EDU 886 - Multivariate Research Methods**

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: COU 886  
Discussion and critique of multivariate research methods, designs, and strategies as applied in contemporary educational research. Practical applications in multivariate research design, implementation, and interpretation of data.

### **EDU 910 - Current Scholarship in Teaching and Leadership**

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Seminar in current scholarly work of teaching and leadership faculty. Topics, interests, research. Methods and approaches. Forms of publication and exhibition. Matriculation at doctoral level.  
Repeatable 1 time(s), 6 credits maximum

### **EDU 970 - Experience Credit**

#### **School of Education**

1-6 credit(s) Every semester  
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.  
Repeatable

### **EDU 990 - Independent Study**

#### **School of Education**

1-6 credit(s) Every semester  
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.  
Repeatable

### **EDU 991 - Problems in Educational Research**

#### **School of Education**

1-6 credit(s) Upon sufficient interest  
For qualified students who wish to pursue individual problems under faculty direction, particularly problems in those fields not served by a special research course.

### **EDU 997 - Thesis**

#### **School of Education**

1-6 credit(s) Every semester  
Repeatable

## GRADUATE COURSE CATALOG

### EDU 999 - Dissertation

#### **School of Education**

1-15 credit(s) Every semester  
Repeatable

## Elementary Education

### EED 632 - Teaching Number Ideas, K-6

#### **School of Education**

3 credit(s) Upon sufficient interest  
Crosslisted with: MTD 632  
Double Numbered with: EED 432  
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 633 - Teaching Geometry and Measurement, K-6

#### **School of Education**

3 credit(s) Upon sufficient interest  
Crosslisted with: MTD 633  
Double Numbered with: EED 433  
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 636 - Assessing Mathematical Understanding

#### **School of Education**

3 credit(s) Irregularly  
Crosslisted with: MTD 636, SED 636  
Background and perspectives on assessment and mathematical understanding. Methods of assessment and issues of implementation. Development of assessment plan.

### EED 640 - Participation in the Professional Development School

#### **School of Education**

0-1 credit(s) Every semester  
Crosslisted 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.  
Repeatable 7 time(s), 8 credits maximum

### EED 643 - The Parent/Caregiver-Professional Partnership

#### **School of Education**

3 credit(s) Only during the summer  
Approaches to developing strong relationships with

parents and caregivers to enhance the young child's development and strengthen the parent-child bond. Brazelton Touchpoints® Approach and other skills for collaborating with families regarding typical and atypical development.

### EED 654 - Teaching Mathematics, Science and Social Studies in Early Childhood Special Education

#### **School of Education**

3 credit(s) Only during the summer  
Basic concepts and strategies for teaching mathematics, science, and social studies to preschool and primary age (K-2) children.

## English Language Learners

### ELL 615 - Linguistics for Teachers of English Language Learners

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Classroom-oriented applications of linguistic concepts for effective teaching of English language learners, including: Phonology, morphology, syntax, semantics, pragmatics. Sociolinguistic, psycholinguistic, and cognitive-science principles included pertaining to teaching and learning of second languages.

### ELL 625 - Methods of Teaching Literacy to English Language Learners

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Planning and executing activities for standards-based classroom instruction and assessment that integrates English language skills, developing classroom resources and standards-based assessment measures for students learning English as another language, includes 25-hour field experience.

### ELL 635 - Methods of Literacy Across the Curriculum for English Language Learners

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Developing strategies, techniques and materials for teaching speaking, reading, writing, and communication skills in English to speakers of other languages through content areas, planning for, managing and implementing standards-based content instruction for English language learners' understanding of content area, includes 25-hour field experience.

### ELL 645 - Issues in Educating English Language Learners

#### **School of Education**

3 credit(s) At least 1x fall or spring

Integration and synthesis of the concepts, principles, trends in research methods and issues in language and literacy education for English language learners; to include research, practice, and policy concerns.

### ELL 655 - Teaching English Language Learners Practicum and Capstone Seminar

#### **School of Education**

6 credit(s) Only during the summer  
Supervised field placement in two separate settings, Pre K-6 and Grades 7-12 classrooms, during which students provide instruction to English language learners and assume other roles of an ESL teacher. This course can be taken only after successful completion of all other courses in the program.

## Health and Physical Education

### HEA 685 - Worksite Health Promotion

#### **School of Education**

3 credit(s) Irregularly  
Double Numbered with: HEA 485  
Principles and applications of health promotion in the workplace.

## Higher Education

### HED 600 - Selected Topics

#### **School of Education**

1-6 credit(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.  
Repeatable

### HED 601 - Graduate Interest Group Seminar

#### **School of Education**

0 credit(s) At least 1x fall or spring  
Linking seminar for the learning community in the Higher Education master's program. Provides orientation to graduate school and the department, socialization with peers and faculty, and integration of coursework.

### HED 605 - The American College and University

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Contemporary American higher education - objectives, institutions, faculties, curriculum, organization and administration, relations with society; major historical influences and current practices. Basic course for students planning further study in higher education.

## GRADUATE COURSE CATALOG

### **HED 611 - Laboratory in Learning Communities**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Hands-on experience that requires students to examine the purpose, research, and diverse organizational structures of interdisciplinary learning communities at local, regional, and national levels.

### **HED 616 - Understanding Educational Research**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: EDU 616  
For master's degree and beginning doctoral students who have had little, if any, exposure to research methods. Quantitative and qualitative methods are studied in the context of education.

### **HED 621 - Principles and Practices of Student Affairs Administration**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Historical, developmental, and philosophical bases of Student Affairs administration. Organization, development, administration of college and university programs that fall under the jurisdiction of student affairs. Roles and responsibilities of student affairs officers.

### **HED 664 - Administrative Principles and Practices for Higher Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Theories of leadership; models of personnel selection, motivation, and evaluation; staff problems, job stress, and burnout.

### **HED 700 - Selected Topics**

#### **School of Education**

1-6 credit(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. Repeatable

### **HED 712 - Research on the College Student**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Identifies issues research has addressed; helps students locate data sources and instruments for use in future studies. Theories of student development applicable to research on college students.

### **HED 715 - Public Policy and Higher Education**

#### **School of Education**

3 credit(s) Irregularly  
Effects of public policy on the functioning of institutions. Applies models of decision making processes to real and hypothetical issues.

### **HED 721 - College Student Development**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Principles and practices that inform the nature, purpose, development and implementation of co-academic outside the classroom learning experiences of college students. The educational role of student affairs officers.

### **HED 725 - Gender and Race in Higher Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: CFE 725, WGS 725  
Examines the influence of gender and race in historical and contemporary higher education from interdisciplinary perspective; considers dynamics of power, privilege, and oppression; includes topics related to student and faculty experiences, and curricular issues.

### **HED 730 - Internship in Higher Education**

#### **School of Education**

1-6 credit(s) Every semester  
Supervised field experiences and related seminar. For matriculated graduate students who are considering an administrative position in a higher education setting. Permission of instructor. Repeatable 2 time(s), 9 credits maximum

### **HED 741 - The Academic Program**

#### **School of Education**

3 credit(s) Irregularly  
Historical and philosophical forces that shaped curriculum in higher education; current practices and policies of the curriculum; factors influencing development and implementation of academic programs.

### **HED 755 - Legal Issues in Higher Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Legal issues arising from the relationship between higher education institutions and their governing boards, administrators, faculty, students, and governmental bodies.

### **HED 761 - Organization and Administration in Higher Education**

#### **School of Education**

3 credit(s) Irregularly  
Organizational structure of colleges and universities. Models of organizational functioning, adaptation, decline, governance, and culture. Leadership in colleges and universities.

### **HED 820 - Doctoral Seminar in Higher Education**

#### **School of Education**

3 credit(s) Irregularly  
Specific topic in the theory and/or practice of higher education. Course topics will vary. Repeatable 1 time(s), 6 credits maximum

### **HED 831 - Advanced College Student Development**

#### **School of Education**

3 credit(s) Irregularly  
Builds upon students' current knowledge and deepens their understanding of how college students develop and learn. Critically examines the inclusivity and applicability of various theoretical perspectives.

### **HED 849 - Seminar in College Instruction**

#### **School of Education**

3-6 credit(s) Irregularly  
Readings and discussions of teaching and learning theories, observations of exemplary college instructors, design of courses and syllabi.

## **Instructional Design, Development, and Evaluation**

### **IDE 552 - Digital Media Production**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
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.

### **IDE 600 - Selected Topics**

#### **School of Education**

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

## GRADUATE COURSE CATALOG

### IDE 611 - Technologies for Instructional Settings

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Students gain knowledge, skills and experiences with a variety of information and communication technologies relevant to educational contexts, create instructional materials and resources, and examine critical issues related to information technologies used in instructional settings. May not receive degree credit for both IDE 611 and IST/IDE 613.

### IDE 621 - Principles of Instruction and Learning

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Theories of learning and instruction, factors affecting human learning, youth through adult, with implications for the design and management of instruction.

### IDE 631 - Instructional Design and Development I

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Major aspects of instructional design and development emphasizing learning outcomes, instructional objective, and strategies in the context of theory and practice. Emphasis on knowledge and skills required to create instructional design rationale.

### IDE 632 - Instructional Design and Development II

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Instructional design and development theory and practice. The knowledge and skills required to select, revise, and apply instructional development models.

### IDE 641 - Techniques in Educational Evaluation

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Crosslisted with: EDA 641  
Applied, programmatic techniques for evaluating educational/training programs and projects. Units focus on planning, client relations, problem analysis, data collection and analysis, reporting, evaluation management, and ethics.

### IDE 651 - Message Design for Digital Media

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Combines message design theory with basic technology skills development to create

technology-based or enhanced instructional materials.

### IDE 652 - Assistive Technologies for Integrating Students with Special Needs

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Crosslisted with: DSP 652, SPE 652  
Development of integrative technologies and strategies that can be functional in both educational and work environment. Support and adaptation for individuals with physical, educational, and language challenges.

### IDE 656 - Computers as Critical Thinking Tools

#### *School of Education*

3 credit(s) Only during the summer  
Double Numbered with: IDE 456  
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.  
PREREQ: IDE 621 AND IDE 631

### IDE 660 - Topics in Program Management and Human Performance Technology

#### *School of Education*

3 credit(s) Upon sufficient interest  
As the discipline related to project management, performance engineering, and human performance technology continues to evolve, ongoing consideration of new theories, maturing conceptual models, and clarified procedures will be required.

### IDE 680 - Internship and Fieldwork in Educational Technology

#### *School of Education*

1-9 credit(s) Upon sufficient interest  
Designed to provide students with practical experience in the application of technology to education in school and business settings. Cooperative work coordinated by the instructor with a site supervisor is required.  
Repeatable

### IDE 681 - Instructional Technology K-12 Practicum and Seminar I

#### *School of Education*

1 credit(s) At least 1x fall or spring  
First of three 1-credit courses. Students examine placement site, assess technology uses, explore technology topics, troubleshoot, identify training opportunities. Must complete in sequence IDE681FA, IDE 682SP, IDE 683SU within same academic year.

### IDE 682 - Instructional Technology K-12 Practicum and Seminar II

#### *School of Education*

1 credit(s) At least 1x fall or spring  
Second of three 1-credit courses. Students continue to examine placement site, explore technology practices topics, design/develop/implement/evaluate educational technology professional development or student training session. Must complete in sequence IDE681FA, IDE682SP, IDE683SU within same academic year.  
PREREQ: IDE 681

### IDE 683 - Instructional Technology K-12 Practicum and Seminar III

#### *School of Education*

1 credit(s) Only during the summer  
Third 1-credit practicum course. Students summarize/reflect on placement experiences, summarize educational technology instructional intervention, self-critique their competencies as Educational Technology Specialists, prepare final portfolios. Must complete in sequence IDE681FA, IDE682SP, IDE683SU within same academic year.  
PREREQ: IDE 681 AND IDE 682

### IDE 690 - Independent Study

#### *School of Education*

1-6 credit(s) Every semester  
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.  
Repeatable

### IDE 700 - Selected Topics

#### *School of Education*

1-6 credit(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.  
Repeatable

### IDE 712 - Analysis for Human Performance Technology Decisions

#### *School of Education*

3 credit(s) At least 1x fall or spring  
Addresses analytical techniques used to determine educational or training program solutions. Participants examine human behavior and the role that instruction can have in changing behavior on the job and in society.

### IDE 735 - Modeling and Simulations in Education

#### *School of Education*

3 credit(s) Only during the summer  
Modeling and simulations for instructional purposes; analysis of appropriate kinds of

## GRADUATE COURSE CATALOG

modeling and simulation activities to support different learning outcomes. Demonstration and discussion of modeling and simulation tools.

### **IDE 736 - Motivation in Learning and Instruction**

#### **School of Education**

3 credit(s) Only during the summer  
Theories of motivation relevant to the design, development, implementation, and evaluation of instructional systems. Learning and performance environments are reviewed, analyzed, and applied. Methods to make instructional processes personally relevant and meaningful.

### **IDE 737 - Advanced Instructional Design**

#### **School of Education**

3 credit(s) Only during the summer  
Capstone course. Additional learning experience helping students develop confidence in their role as designers. Students will storyboard, critique, enhance, and evaluate an instructional unit while learning about advanced design techniques.  
PREREQ: IDE 621, IDE 631, IDE 632, IDE 641, AND IDE 712

### **IDE 741 - Concepts and Issues in Educational Evaluation**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: EDA 741  
Major theoretical approaches to evaluation of educational products, personnel, projects, programs and policies are reviewed, analyzed, and critiqued. Pragmatic implications for educational and social policy, as well as evaluation practice are highlighted.

### **IDE 742 - Introduction to Survey Research**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Provides knowledge and skills in basic survey design, sampling, instrument construction, data collection, and ethics of questionnaire and interview surveying.

### **IDE 743 - Cost-Effectiveness in Instruction and Training**

#### **School of Education**

3 credit(s) Irregularly  
Crosslisted with: EDA 743  
Planning, evaluation, program cost analysis, and decision making in education and training contexts. Defining and determining program effectiveness, linking cost and effectiveness, and case studies.

### **IDE 756 - Design of Online Courses**

#### **School of Education**

3 credit(s) Irregularly  
Double Numbered with: IDE 457  
Explore, design, and critique online instruction; study online instructor and learner competencies; create guidelines for interactivity and resources uses in online courses; experience asynchronous and synchronous, individual and collaborative online activities. Additional work required of graduate students.  
PREREQ: IDE 621 AND IDE 631

### **IDE 761 - Strategies in Educational Project Management**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: EDA 761  
Management tactics, skills, procedures, and tools for planning and administering educational projects. Includes planning, implementing, maintaining, and closing projects; investigating project management issues on scope, changes, and quality.

### **IDE 762 - Performance Improvement: Promise and Practice**

#### **School of Education**

3 credit(s) Only during the summer  
Theories and techniques for solving training problems and designing training programs in business, industry, and other performance-oriented organizations. Specific issues and techniques for developing and implementing training programs.  
PREREQ: IDE 712

### **IDE 764 - Planned Change and Innovation**

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: EDA 764  
Social change in education, models of the change process, diffusion and implementation strategies. Case study analyses in schools and higher education and other organizational settings.

### **IDE 771 - Methods and Techniques for Teaching and Training Adults**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Philosophy, research, and practice in teaching/training adults. Workshop provides opportunities to improve up-front delivery style and to try out different instructional methods, techniques, and strategies.

### **IDE 772 - Educational Technology in International Settings**

#### **School of Education**

3 credit(s) Only during the summer  
Issues arising in application of instructional principles, strategies, and processes in international settings. Impact of educational technology reforms around the world; issues and challenges in designing multicultural learning; social aspects of instructional design, development, evaluation.

### **IDE 800 - Selected Topics**

#### **School of Education**

1-6 credit(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.  
Repeatable

### **IDE 830 - Doctoral Seminar in Design and Development**

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
As new technologies emerge, new instructional design research and practice issues arise. Advanced seminar investigating and discussing models and research topics in the area of instructional design and development.  
PREREQ: IDE 621 AND IDE 631 AND IDE 632 AND IDE 641 AND IDE 712

### **IDE 831 - Knowledge Management in Instructional Design**

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
Knowledge management systems. Design, development, and implications of learning and performance solutions that integrate knowledge management systems technology. Demonstration of knowledge management technologies. Project-centered.  
PREREQ: IDE 712 AND IDE 651 AND IDE 632

### **IDE 841 - The Nature and Design of Inquiry**

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: EDU 841  
Overview of social, academic, and psychological aspects, including fundamental mental abilities of inquiry. Introduction to full range of quantitative and qualitative inquiry strategies and practice in research topic identification, problem formation, and study design.

## GRADUATE COURSE CATALOG

### IDE 843 - Dissertation Research Seminar

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
Advanced discussion of problem formation, literature review, study design, and professional context of instructional research; support in preparation of dissertation research proposal.

### IDE 850 - Doctoral Seminar in Conducting Literature Reviews

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Develop advanced knowledge in student's field of study through the process of learning how to conduct a literature review; learn how to successfully communicate and defend understanding of study area.  
PREREQ: IDE 621 AND IDE 631 AND IDE 632  
Repeatable 1 time(s), 6 credits maximum

### IDE 853 - Educational Media Theory and Research

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
Media-research programs, trends, and findings. Current theoretical and conceptual approaches in media and related research. Optional modules in reviews of related literature in specific media-research areas.

### IDE 980 - Internship and Fieldwork in Instructional Technology

#### **School of Education**

1-9 credit(s) Every semester  
Practical experience in administration of instructional technology programs. Cooperative work under the direction of a supervisor and faculty advisor. Involvement in all aspects of the school's instructional-technology program.  
Repeatable

### IDE 990 - Independent Study

#### **School of Education**

1-6 credit(s) Every semester  
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.  
Repeatable

## Media & Education

### M&E 601 - Media and Education CAS Colloquium

#### **School of Education**

1 credit(s) Only during the summer  
Critical examination of intersections between the

fields of Media and Education for educational professionals.

### M&E 610 - Media and Education Master's Colloquium

#### **School of Education**

1 credit(s) Every semester  
Critical examination of intersections between the fields of Media and Education at three distinct phases in students' programs of study.  
Repeatable 2 time(s), 3 credits maximum

### M&E 611 - Proseminar in Media and Education

#### **School of Education**

3 credit(s) Every semester  
Critical examination of the intersections of law, ethics and professionalism in the increasingly confluent fields of media and education.

### M&E 621 - Media and Education Practicum: Project Development

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Conceiving, structuring and planning media projects in students' respective fields of educational practice. Students will participate in an interactive forum designed to foster discussion about creative and educational challenges arising from their work.

### M&E 622 - Media and Education Practicum: Production

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Production and post production of media projects in students' respective fields of educational practice. Students will participate in an interactive forum designed to foster discussion about creative and educational challenges arising from their work.

### M&E 650 - Special Projects Seminar

#### **School of Education**

2 credit(s) At least 1x fall or spring  
This flexible course format is designed to accommodate Media and Education project-based initiatives in a variety of educational areas of study.

### M&E 689 - Media & Education Capstone

#### **School of Education**

3 credit(s) At least 1x fall or spring  
This advanced practice course is designed to provide M&E students the opportunity to cap their Master's experience with a summative media and education project of their own design.

## Mathematics Education

### MTD 600 - Selected Topics

#### **School of Education**

1-6 credit(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  
Repeatable

### MTD 630 - Internship in Mathematics Education

#### **School of Education**

1-3 credit(s) Every semester  
Graduate students work with mathematics education faculty in teaching courses, developing curricula, assessing student understanding, understanding student beliefs.  
Repeatable

### MTD 632 - Teaching Number Ideas, K-6

#### **School of Education**

3 credit(s) Upon sufficient interest  
Crosslisted with: EED 632  
Double Numbered with: MTD 432  
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 633 - Teaching Geometry and Measurement, K-6

#### **School of Education**

3 credit(s) Upon sufficient interest  
Crosslisted with: EED 633  
Double Numbered with: MTD 433  
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 634 - Teaching and Learning Functions

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: SED 634  
Double Numbered with: MTD 434  
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.

## GRADUATE COURSE CATALOG

### MTD 636 - Assessing Mathematical Understanding

#### **School of Education**

3 credit(s) Upon sufficient interest  
Crosslisted with: EED 636, SED 636  
Background and perspectives on assessment and mathematical understanding. Methods of assessment and issues of implementation. Development of assessment plan.

### MTD 637 - Teaching and Learning Geometry

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: SED 637  
Double Numbered with: MTD 437  
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 638 - Teaching and Learning Statistics

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Double Numbered with: MTD 438  
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.

### MTD 736 - Mathematical Communication

#### **School of Education**

3 credit(s) Irregularly  
Crosslisted with: RED 736  
Theoretical development of the role of communication in students' mathematical learning, K-12. Examination of strategies to support all students' abilities to read mathematical texts, to generate written responses, and to engage in productive classroom conversations.

### MTD 800 - Selected Topics

#### **School of Education**

1-6 credit(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. Repeatable

### MTD 830 - Research Seminar in Mathematics Education

#### **School of Education**

0-3 credit(s) Every semester  
Philosophical and theoretical readings and discussions about research issues in mathematics education.  
Repeatable 5 time(s), 6 credits maximum

### MTD 835 - Learning Theories in Education

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: EDU 835  
Examination of cognitive science, constructivism, social cognition, and other learning theories and their influence on how educators view learning and have conducted research about learning.

## Professional Physical Education

### PPE 514 - Exercise and Aging

#### **School of Education**

3 credit(s) At least 1x fall or spring  
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

#### **School of Education**

4 credit(s) Irregularly  
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

#### **School of Education**

3 credit(s) Irregularly  
Exercise prescription for health and fitness in the apparently healthy and a variety of clinical populations.  
PREREQ: PPE 497

### PPE 517 - Pathophysiology

#### **School of Education**

3 credit(s) At least 1x fall or spring  
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

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Exercise training and prescription for individuals with cardiovascular disease.  
PREREQ: PPE 497

### PPE 519 - Metabolic Aspects of Physical Activity

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Examines metabolic processes that influence or are affected by acute and chronic physical activity. Emphasis on metabolism and human physical performance.  
PREREQ: PPE 497

### PPE 600 - Selected Topics

#### **School of Education**

1-6 credit(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. Repeatable

### PPE 606 - Current Literature in Exercise and Sport Science

#### **School of Education**

1-3 credit(s) At least 1x fall or spring  
Current books, periodicals, and peer-reviewed articles. Literature review, library research, and research proposal preparation.

### PPE 683 - Scientific Principles of Conditioning

#### **School of Education**

3-6 credit(s) Irregularly  
Double Numbered with: PPE 483  
Development of physical conditioning programs based on scientific principles.

### PPE 685 - Systemic Physiology and Exercise

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Immediate and chronic effects of exercise on the cardiovascular, respiratory, excretory, endocrine, and nervous systems. Laboratory experiences.

### PPE 693 - Research Methods in Exercise and Sport Science

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Quantitative research designs and analyses in exercise and sport sciences. Written and oral research report preparation and presentation.  
PREREQ: PPE 606 AND EDU 647



## GRADUATE COURSE CATALOG

### **PPE 753 - Cardiovascular Physiology**

#### **School of Education**

3 credit(s) Irregularly

The principles of cardiac function, blood flow, oxygen transport, and metabolism with emphasis given to the adaptations to acute and chronic exercise training.

PREREQ: PPE 685

### **PPE 764 - Internship in Exercise Science**

#### **School of Education**

3-6 credit(s) Every semester

Full-time experience in exercise science under the guidance of a professional and a faculty member. Repeatable 2 time(s), 6 credits maximum

### **PPE 773 - Exercise Endocrinology**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Integrates endocrine physiology and exercise on the endocrine system. Focus on the glands producing hormones, the target organs, mechanisms, and how both acute and chronic exercise impact hormone action.

PREREQ: PPE 685

### **PPE 785 - Energy, Metabolism and Exercise**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Probable causes for differences in muscle-fiber types in relationship to exercise. Total body metabolism during exercise.

### **PPE 795 - Skeletal Muscle Physiology**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Emphasizing basic muscle microanatomy and physiology and advanced applied muscle physiology topics.

PREREQ: PPE 685

## **Reading and Language Arts**

### **RED 512 - Children's and Adolescent Literature**

#### **School of Education**

3 credit(s) At least 1x fall or spring

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.

### **RED 600 - Selected Topics**

#### **School of Education**

1-6 credit(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. Repeatable

### **RED 607 - Issues in Multicultural Literacy**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Application of major concepts, principles, theories, and research related to the nature and role of culture to constructing learning environments that support students' cultural identities, language and literacy development, and content-area achievement.

### **RED 613 - Teaching Comprehension**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Theory, research-based concepts, instruction, materials, assessment, and programs for teaching comprehension. Integrated into the course are an emphasis on instructional coaching and using technology to promote comprehension development.

### **RED 614 - Teaching 21st Century Writers In and Out of School**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Writing theory, research, and practice for youth in and beyond school contexts. Highlights spaces in urban schools and communities that encourage the creative writing practices of today's youth. Includes 25 hours of fieldwork in community.

### **RED 615 - Teaching Academic Writing in K-12 Classrooms**

#### **School of Education**

3 credit(s) Every semester

Provides opportunities for students to construct concepts, acquire skills, and explore issues related to teaching, assessing, and providing leadership around academic writing for a wide range of learners in K-12 classrooms.

### **RED 616 - Academic Language and Reading**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Research-based concepts, instruction and materials, assessment, and programs for developing academic language and reading in grades five through twelve. For subject-area teachers, literacy specialists, and other educators interested in adolescent literacy.

### **RED 621 - Literacy Intervention for Special Educators, Grades K-12**

#### **School of Education**

3 credit(s) Only during the summer

Current research, issues, and practices in literacy for special educators in grades K-12, with a particular focus on literacy intervention.

PREREQ: (EED 624 AND EED 625 ) OR RED 625

### **RED 625 - Literacy Across the Curriculum**

#### **School of Education**

3-4 credit(s) Every semester

Double Numbered with: RED 326

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 626 - Early Intervention for Children's Reading Problems**

#### **School of Education**

3 credit(s) Every semester

Crosslisted with: SPE 627

Researchbased instruction for prevention and remediation of reading difficulties. Focus on preschool and early elementary children at risk for reading problems, as well as older elementary children labeled learning disabled, reading disabled, or dyslexic.

### **RED 629 - Data-Driven Early Literacy Intervention and Coaching**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Advanced research-based diagnostic assessment and intervention for learners with severe reading and writing disabilities. Includes 25+ hours of practice in diagnosis and treatment.

PREREQ: RED 626/SPE 627

### **RED 700 - Selected Topics**

#### **School of Education**

1-6 credit(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. Repeatable

### **RED 715 - Language, Learning, and Literacy**

#### **School of Education**

3 credit(s) Irregularly

Seminar on relationships between oral and

## GRADUATE COURSE CATALOG

written language and learning; social influences on linguistic and cognitive development; socially interactive models of language learning and teaching.

### **RED 736 - Mathematical Communication**

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8

Crosslisted with: MTD 736

Theoretical development of the role of communication in students' mathematical learning, K-12. Examination of strategies to support all students' abilities to read mathematical texts, to generate written responses, and to engage in productive classroom conversations.

### **RED 746 - Perspectives on Literacy and Technology**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Exploration of the theoretical literature and research on the relationships between literacy and technology in various sociocultural contexts. Consideration of instructional frameworks, methods, and materials for technology-enhanced literacy instruction with diverse learners.

### **RED 747 - Literacy Clinic**

#### **School of Education**

6 credit(s) Only during the summer

Supervised practice and seminar in diagnosing and tutoring students who struggle with reading and writing. Includes a 50-hour practicum  
PREREQ: RED 629

## **Science Education**

### **SCE 600 - Selected Topics**

#### **School of Education**

1-6 credit(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.  
Repeatable

### **SCE 613 - Methods and Curriculum in Teaching Science**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Double Numbered with: SCE 413

Planning lessons, developing broad units, planning curricula for science 7-12. Prereq: Admission to secondary candidacy semester.  
COREQ: SPE 612

### **SCE 614 - The Nature of Science in Science Education**

#### **School of Education**

3 credit(s) Only during the summer

Historical, philosophical, psychological, and sociological aspects of science as they pertain to lesson planning, curriculum development, and instruction in 7-12 science classrooms. Literature reviews, guest seminars, and collaborative team projects. Completion of the secondary education candidacy semester, or permission of instructor.

### **SCE 616 - Assessment & Data-Driven Instruction**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Crosslisted with: SED 616

Double Numbered with: SCE 416

Use of formal and informal assessments to assess and document growth for varying student populations, evaluate instructional effectiveness, and adjust curriculum and instruction. Classroom management to support accompanying student teaching placement. Additional work required of graduate students.

### **SCE 718 - Curriculum Problems in Science**

#### **School of Education**

3 credit(s) Only during the summer

For elementary and junior and senior high school teachers who wish to work on problems from their own classrooms. Instruction primarily on an individual basis. Students may build new units of work, outline science courses and sequences, or enrich existing courses.

### **SCE 737 - Methods and Materials in Teaching the Physical Sciences**

#### **School of Education**

3 credit(s) Irregularly

Teaching physical sciences in secondary schools. Demonstrations, laboratory techniques, and experiments. Audiovisual devices in physical sciences.

### **SCE 747 - Methods and Materials in Teaching the Biological Sciences**

#### **School of Education**

3 credit(s) Irregularly

High school instruction in biological sciences. Demonstrations, laboratory experiences, teaching methods in various areas of high school biological science. Caring for living things in the classroom. Field trip development and audio-visual aids in biological sciences.

### **SCE 750 - Seminar in the Physical and Biological Sciences for Teachers**

#### **School of Education**

1-3 credit(s) Irregularly

Recent advances in astronomy, chemistry, geology, plant sciences, physics, and zoology and their implications for teaching of science in elementary and secondary schools.

Repeatable

### **SCE 757 - Methods and Materials in Teaching the Earth Sciences**

#### **School of Education**

3 credit(s) Irregularly

Secondary school instruction in earth sciences. Laboratory techniques, field methods, analysis of three-dimensional problems. Interpretation of data. Special methods of the Earth Science Curriculum Project. Seminar, laboratory, field trips.

PREREQ: EAR 101 AND 102

### **SCE 767 - Methods and Materials in Teaching Junior High School (Middle School) Science**

#### **School of Education**

4 credit(s) Irregularly

Structure and content of junior high school science curricula based on lectures, discussions, laboratory experiences, and field work consisting of observation and teaching the junior high curricula.

### **SCE 770 - Workshop in Science Education**

#### **School of Education**

3-6 credit(s) Upon sufficient interest

For experienced science teachers who wish to study present day problems in science education and work on specific curriculum problems that exist in their schools.

Repeatable

### **SCE 789 - Seminar in Science Education Research**

#### **School of Education**

3 credit(s) Irregularly

Scholarly literature in science education. Major problems in science education and their relevance to practice.

## **Secondary Education**

### **SED 613 - Methods and Curriculum in Teaching**

#### **School of Education**

3 credit(s) At least 1x fall or spring

Double Numbered with: SED 413

Lesson planning, developing broad units, planning curricula for specific grade levels and content

## GRADUATE COURSE CATALOG

areas under the guidance of major advisors in each teaching field.  
COREQ: SPE 612

### **SED 616 - Assessment & Data-Driven Instruction**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: SCE 616  
Double Numbered with: SED 416  
Use of formal and informal assessments to assess and document growth for varying student populations, evaluate instructional effectiveness, and adjust curriculum and instruction. Classroom management to support accompanying student teaching placement. Additional work required of graduate students.  
PREREQ: SED/SCE 413/613  
COREQ: EDU 508

### **SED 634 - Teaching and Learning Functions**

#### **School of Education**

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: MTD 634  
Double Numbered with: SED 434  
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 636 - Assessing Mathematical Understanding**

#### **School of Education**

3 credit(s) Upon sufficient interest  
Crosslisted with: EED 636, MTD 636  
Background and perspectives on assessment and mathematical understanding. Methods of assessment and issues of implementation. Development of assessment plan.

### **SED 637 - Teaching and Learning Geometry**

#### **School of Education**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: MTD 637  
Double Numbered with: SED 437  
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 640 - Participation in the Professional Development School**

#### **School of Education**

0-1 credit(s) Every semester  
Crosslisted with: EED 640  
Double Numbered with: SED 340  
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 7 time(s), 8 credits maximum

## **Special Education**

### **SPE 500 - Selected Topics**

#### **School of Education**

1-6 credit(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.  
Repeatable

### **SPE 520 - Methods and Curricula in Early Childhood Special Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Curricula, program design, and teaching methods for educating infants and young children with disabilities.

### **SPE 600 - Selected Topics**

#### **School of Education**

1-6 credit(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.  
Repeatable

### **SPE 609 - Teaching Children and Adolescents with Autism**

#### **School of Education**

3 credit(s) Irregularly  
Cognitive, social, and communication needs of children and adolescents with autism. Examines program development, behavioral management, and effective educational strategies for this population of students.

### **SPE 612 - Adapting Instruction for Diverse Student Needs**

#### **School of Education**

3 credit(s) Every semester  
Double Numbered with: SPE 412  
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 613 - Developmental Therapy for Children with Disabilities**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Integrated occupational/ physical therapy interventions and curricular modifications for children with special needs, ages birth to 5 years, in collaboration with early childhood special education planning.

### **SPE 615 - Seminar in Teaching**

#### **School of Education**

1-2 credit(s) Every semester  
Opportunities for students to critically reflect upon their inclusive field experience. Emphasis on professionalism, collaborative problem solving (including classroom management), planning and implementing curriculum and teaching strategies and becoming a productive school change agent.  
COREQ: EDU 508  
Repeatable 1 time(s), 3 credits maximum

### **SPE 618 - Augmentation of Communication in the Inclusive Classroom**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Supporting students who are users of augmentative and alternative communication in inclusive classrooms. Variety of communication approaches, systems, and devices. Academic, social, legal, and policy issues.

### **SPE 621 - Sociology of Disability**

#### **School of Education**

3 credit(s) Irregularly  
Crosslisted with: DSP 621  
Sociological perspectives on disability treatment approaches, and social policy toward the disabled. Personal and public forms of stereotyping, prejudices, and discrimination.

### **SPE 623 - Families of Students with Disabilities**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Critical, contemporary issues affecting children and youth with special needs and their families.

### **SPE 627 - Early Intervention for Children's Reading Problems**

#### **School of Education**

3 credit(s) Every semester  
Crosslisted with: RED 626  
Researchbased instruction for prevention and

## GRADUATE COURSE CATALOG

remediation of reading difficulties. Focus on preschool and early elementary children at risk for reading problems, as well as older elementary children labeled learning disabled, reading disabled, or dyslexic.

### **SPE 633 - The High-Risk Infant: Medical Treatment and Educational Interventions**

#### **School of Education**

3 credit(s) Only during the summer  
Major medical conditions of newborns, associated developmental delays and disabilities, and ethical issues of medical treatment in neonatal intensive care. Problems of preterm, full-term, and post-term infants. Current issues (e.g., substance abuse, HIV-AIDS).

### **SPE 634 - Collaboration/Cooperation in Schools**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: EDA 634  
Formal specialized services and informal support networks that promote collaboration between teachers, administrators, therapists, paraprofessionals, students, families, and community members.

### **SPE 644 - Significant Disabilities: Shifts in Paradigms and Practices**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: DSP 644  
Curriculum development, methods, materials, and instructional strategies, emphasizing inclusive settings. Discrimination encountered; history and experiences (e.g., eugenics, racial stereotypes, gender roles, and ideas of progress); perspective of those with significant disabilities.

### **SPE 649 - Practicum in Significant Disabilities**

#### **School of Education**

1 credit(s) At least 1x fall or spring  
Field-based practicum with students with significant disabilities in inclusive settings.  
COREQ: SPE 644

### **SPE 652 - Assistive Technologies for Integrating Students with Special Needs**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Crosslisted with: DSP 652, IDE 652  
Development of integrative technologies and strategies that can be functional in both educational and work environment. Support and adaptation for individuals with physical, educational, and language challenges.

### **SPE 653 - Positive Approaches to Challenging Behaviors**

#### **School of Education**

3 credit(s) Only during the summer  
Approaches for supporting elementary children with challenging behaviors. Conflict resolution, peer mediation, prosocial behavior, skillstreaming, and cooperative learning.

### **SPE 665 - Positive Behavior Supports in Secondary Schools**

#### **School of Education**

3 credit(s) Only during the summer  
Approaches to help support positive behavior in adolescents. Theories and characteristics of emotional and behavioral disabilities; historical perspective; current research; assessment techniques; effective strategies for schools, classrooms and individuals.

### **SPE 688 - Social Policy and Disability**

#### **School of Education**

3 credit(s) Irregularly  
Crosslisted with: CFE 688, DSP 688  
Trends and issues in the field and forces within society (political, economic, cultural, historical, and social) that affect people with disabilities.

### **SPE 690 - Independent Study**

#### **School of Education**

1-6 credit(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. Repeatable

### **SPE 705 - Practicum in Psychoeducational Evaluation and Planning for Exceptional Children**

#### **School of Education**

3-6 credit(s) At least 1x fall or spring  
Working on a psychoeducational teaching laboratory team, students learn to evaluate and plan programs for youngsters with puzzling learning and/or behavioral difficulties using home and school observations, formal, informal, and curriculum-based assessment strategies.

### **SPE 706 - Seminar in Early Childhood Special Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Key issues facing the field of early childhood special education. Medical and environmental influences on development, teen pregnancy, substance abuse, current legislation affecting programs, and new approaches to early intervention.

### **SPE 724 - Inclusive Professional Practices in Special Education**

#### **School of Education**

3 credit(s) At least 1x fall or spring  
Roles and responsibilities of special education teachers in inclusive schools. Essential skills and dispositions associated with quality inclusive practice, including professional standards, ethical principles, individualized educational planning, and research-based practices.  
PREREQ: SPE 612 OR 412

### **SPE 727 - Perspectives on Learning Disabilities**

#### **School of Education**

3 credit(s) Upon sufficient interest  
Historical and current theoretical perspectives. Research related to factors that interfere with learning and its implications for instruction. For students in learning disabilities, special education, communicative disorders, rehabilitation, reading, and psychology.

### **SPE 860 - Proseminar in Inclusive Education**

#### **School of Education**

3 credit(s) Irregularly  
Research approaches. Methods, conceptual processes for research design, and practice. How scholars frame research questions, incorporate values in research development, and interpret research findings.  
Repeatable 1 time(s), 6 credits maximum

### **SPE 900 - Selected Topics**

#### **School of Education**

1-6 credit(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.  
Repeatable

## **School of Education Faculty**

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.

## GRADUATE COURSE CATALOG

Tiago Barreira, Assistant Professor  
Ph.D., Middle Tennessee State University, 2010  
Reliability and validity of human behavior  
(physical activity, sedentary behavior, and sleep),  
body composition, and cardiovascular disease risk  
factors

James Bellini, Professor  
Ph.D., University of Arkansas, 1995  
Rehabilitation research, disability policy,  
rehabilitation evaluation

Sharif Bey, Assistant Associate Professor  
Ph.D. Pennsylvania State University 2007  
Community based arts programing, African-  
American art education history, unofficial Slovak  
art, post Ssoviet 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. 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, Laura J. and L. Douglas  
Meredith 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, Program  
Coordinator  
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,  
disusemediated 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, Interim Director,  
Center on Human Policy  
Ph.D., University of Wisconsin, 2001  
Curriculum and instruction, educational  
communications and technology

Marcelle Haddix, Dean's Assistant Professor, Chair  
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, Chair  
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

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

## GRADUATE COURSE CATALOG

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.

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 & M.F.A. University Of Illinois at Urbana-  
Champaign, 1986  
Dance; kinesiology; Alexander technique;  
movement education

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 Rollin g 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 literal 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

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

Julia M. White, Assistant Professor  
Ph.D., Syracuse University, 2007  
Inclusive education and students with complex  
support needs, Disability Studies in Education,  
special/education policy, Romani Studies

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

Chilukuri K Mohan, Dean  
227 Link Hall  
eng-cs.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.

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

## Graduate Program Overview

The College of Engineering and Computer Science was established in 1901, the fifth of the 11 schools and colleges within Syracuse University today. The college is dedicated to graduate as well as undergraduate education in engineering, computer science, systems and information science, and research. Its research efforts, which total nearly 25 percent of all sponsored research at Syracuse University, contribute significantly to student development as well as to the continued professional growth of the faculty. Graduate education and research, particularly at the Ph.D. level, are inseparable.

The faculty numbers 80 full-time members, most of whom are research scholars of national and international renown. Full-time graduate enrollment in the college totals approximately 1100 students.

The college offers the following graduate degrees:

Bioengineering, MS  
Bioengineering, PhD  
Chemical Engineering, MS  
Chemical Engineering, PhD  
Civil Engineering, MS  
Civil Engineering, PhD  
Computer Engineering, MS, CE  
Computer Science, MS  
Computer & Information Science & Engineering, PhD  
Electrical Engineering, MS, EE  
Electrical & Computer Engineering, PhD  
Engineering Management, MS

Environmental Engineering, MS (See civil engineering for Ph.D.)  
Environmental Engineering Science, MS  
Law/Computer Science, JD/MS  
Mechanical and Aerospace Engineering, MS  
Mechanical and Aerospace Engineering, PhD

For a complete listing of faculty affiliated with the College of Engineering and Computer Science, see the Faculty section.

### Admission

Applicants must complete the application for admission found online at [apply.embark.com/grad/syracuse](http://apply.embark.com/grad/syracuse). International students must take the general Graduate Record Examination (GRE); this requirement is rarely waived.

Please note that failure to see that transcripts, letters of recommendation, or GRE scores are provided may delay processing. It is advisable to apply as early as possible.

Nonmatriculated students may register through University College. Up to 12 credits of nonmatriculated graduate credit may be transferred toward a degree program if the applicant is subsequently admitted. Performance in courses taken for nonmatriculated credit carries considerable weight in evaluating the application.

### Graduate Awards

Syracuse University fellowships are awarded competitively from applications received by January 1 on an all-University basis. Doctoral fellows receive a stipend, plus a tuition scholarship of 30 credits for the academic year. Fellows devote full time to their studies and are not assigned duties.

Graduate assistantships in the form of research assistantships and teaching assistantships are awarded on a competitive basis from among applications received by February 1; assistantships are usually not available at any other time of the year. Research assistants are required to assist their sponsoring faculty to perform research. Teaching assistants are required to assist with undergraduate/graduate instruction as well as to work on research projects. Recipients of these assistantships receive a stipend in addition to a tuition scholarship for up to 24 credits per year.

Information about programs to support graduate students from ethnic minority groups (African, Latino, and Native American) that are underrepresented in science and engineering fields can be found in the publication Graduate Study: College of Engineering and Computer Science.

Securing loans and part-time jobs is the responsibility of the student.

To apply for fellowships or assistantships, check

## GRADUATE COURSE CATALOG

the proper place on the application for admission.

### Master's

## Bioengineering, MS

### Department Chair:

Radhakrishna Sureshkumar, 329 Link Hall, 315-443-1931; fax: 315-443-9175

### Faculty

Rebecca Bader, Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Mandy B. Esch, Jeremy L. Gilbert, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, 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 Farrell, Eric Finkelstein, Shelley Stephens, Kent Ogden, David Quinn, Dana Radcliff, 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

## Graduate

## Bioengineering Program

### Director:

James Henderson, 318 Bowne Hall, 315-443-9739; jhhender@syr.edu

The Department of Biomedical and Chemical Engineering offers a comprehensive set of graduate programs in bioengineering and chemical engineering, including master's of science (MS) degrees and doctor of philosophy (PhD) degrees. Graduates of these programs work in the medical profession, the biomechanics and bioinstrumentation industries, the chemical engineering industry, the government, and in

education.

The graduate program in bioengineering provides a wide range of opportunities for advanced study in this interdisciplinary field. This graduate program is linked with and focused on research programs in biomaterials and tissue engineering; biomechanics; orthopedic biomechanics; cardiac bioengineering; and neural engineering. Which degree to consider depends on one's career goals.

Major research laboratories include the Syracuse Biomaterials Institute, the Institute for Human Performance, and laboratories at nearby SUNY Upstate Medical University. Strong collaboration between Upstate Medical University and Syracuse University faculty, students, and staff provides opportunities for bioengineering research in clinical and basic science departments at Upstate, as well as in-depth study at one of the Syracuse University bioengineering research centers.

### Major Requirements

The Master's of Science (MS) in Bioengineering is a flexible program with three options to help students develop careers in this field. The MS can be a terminal degree or an introduction to research before pursuing the PhD.

There are three options that students can choose. Plan 1 has a minimum requirement of 30 credit hours of graduate study, including 24 credits of coursework plus 6 credits of thesis. A master's thesis must be completed and defended in an oral examination. Plan 2 also has a minimum requirement of 30 credits with at least 27 credits of coursework plus 3 credits of independent study. Plan 3 is a non-thesis program with cognate field. It requires a total of 36 credits with a minimum of 24 credits of technical coursework and 12 credits of tailored, non-technical concentrations. All three programs are designed to be completed in about two years.

The requirements for the three MS degree options are as follows:

### Master's of Science with Thesis (Plan 1)

- 30 total credits
- 15 credits of Bioengineering (BEN) courses,
- 3 credits of Ethics (Bio-ethics or engineering ethics);
- 6 credits of thesis;
- remaining 6 credits selected from science, technology, engineering, or mathematics (STEM) courses;
- student must complete a thesis and defend it in an oral examination (see below);
- no more than 50% of coursework at 500-level;

- minimum GPA of 3.0 for coursework included on the Program of Study for the degree;
- minimum GPA of 2.8 for all credits earned.

### Master's of Science Non-Thesis (Plan 2)

- 30 total credits
- 15 credits of Bioengineering courses,
- 3 credits of Ethics (Bio-ethics or engineering ethics);
- successful completion of the M.S. project course (see below)
- remaining 9 credits selected from science, technology, engineering, or mathematics (STEM) courses;
- student must complete an oral comprehensive examination based on the independent study and the coursework (see below);
- no more than 50% of coursework at 500-level;
- minimum GPA of 3.0 for coursework included on the Program of Study for the degree;
- minimum GPA of 2.8 for all credits earned.

### Master's of Science Non-thesis with Cognate Field (Plan 3)

- 36 total credits (minimum of 24 credits of technical coursework and 12 credits of tailored concentrations)
- 24 credits of technical coursework must include:
- 15 credits of Bioengineering courses;
- 3 credits of Ethics (Bio-ethics or engineering ethics);
- remaining 6 credits selected from science, technology, engineering, or mathematics courses;
- 12 credits of tailored concentrations in areas such as Technology Transfer and Law (College of Law), Engineering Management (College of Engineering and Computer Science), or a customized sequence of courses of a non-technical nature;
- successful completion of the M.S. project course (see below);
- student must complete an oral comprehensive examination based on the Capstone Project and the coursework (see below);
- no more than 50% of coursework at 500-level;
- minimum GPA of 3.0 for coursework included on the Program of Study for the degree;
- minimum GPA of 2.8 for all credits earned.

### General Information for MS Degree



## Programs

### Residence Time:

The MS degree typically requires three to four semesters to complete.

### Graduate Seminar:

Attendance at the BMCE Graduate Seminars is expected of students in all graduate programs.

### M.S. Project Course Requirement

#### (Bioengineering only):

Successful completion of the M.S. project course.

### Oral Comprehensive Examination:

The Oral Comprehensive Examination will be the culminating event of the M.S. Project courses in Bioengineering and Chemical Engineering. Students will prepare and present the products/outcomes of their project to the departmental faculty and respond to questions from the faculty. The Oral Comprehensive Examination will occur once a year toward the end of the semester in which the M.S. Project courses take place. The examination committee will be composed of at least three department faculty, but all faculty are invited, and the examination will be scheduled to maximize faculty participation. The examination committee will meet separately to determine if the student has passed the examination, and the student will be informed of the decision. Students are required to submit an electronic copy and a printed copy on standard-size paper of presentation materials to the Graduate Secretary prior to the presentation.

### Thesis Defense Requirements:

Completion of the MS degree with thesis requires a written MS thesis and an oral defense. Students must submit a Request for Examination Form to the GEMC at least three full weeks prior to the oral defense. The thesis document must be delivered to the MS Thesis defense committee at least two weeks prior to the date of the oral defense.

Defenses must comply with the requirements of the Graduate School as described in the Graduate Course Catalog. The MS Thesis defense committee

consists of four members. The committee must include the thesis advisor, no fewer than two tenure-track members of the BMCE faculty, and the Chair of the Oral Examination Committee. If a proposed committee member is not a full-time or adjunct faculty member at Syracuse University (e.g. from SUNY-ESF, Upstate Medical University, etc.), the student must petition the Department to allow this person to serve as a committee member. The Chair of the Oral Examination Committee must be a Syracuse University tenured or tenure-track faculty member outside the department and program.

All students must submit two copies of the final version of the thesis, with the signed title page, to the Department in fulfillment of the requirements for the MS degree.

For information on the formatting of the final thesis document for submission to the Graduate School, see [http://www.syr.edu/gradschool/em/current\\_whatyouneed.html](http://www.syr.edu/gradschool/em/current_whatyouneed.html).

### Chemical Engineering, MS

#### Department Chair:

Radhakrishna Sureshkumar, 329 Link Hall, 315-443-1931; fax: 443-9175

#### Faculty

Rebecca Bader, Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Mandy B. Esch, Jeremy L. Gilbert, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, 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 Farrell, Eric Finkelstein, Shelley Stephens, Kent Ogden, David Quinn, Dana Radcliffe, Suresh Santanam, Frederick Werner

#### Affiliate Faculty:

Joseph Chaiken, Andria Costello Staniec, 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

## Graduate Chemical Engineering Program

### Director:

Dacheng Ren, 357 Link Hall, 315-443-4409, [dren@syr.edu](mailto:dren@syr.edu)

The Department of Biomedical and Chemical Engineering offers a comprehensive set of graduate programs in bioengineering and chemical engineering, including master's of science (MS) degrees and doctor of philosophy (PhD) degrees. Graduates of these programs work in the medical profession, the biomechanics and bioinstrumentation industries, the pharmaceutical industry, the chemical engineering industry, the government, and in education.

The graduate program in chemical engineering features a core of courses in chemical engineering, elective courses in areas of student interest, and an intense research or independent study experience with the student's faculty advisor. Elective courses may be concentrated in a large number of special areas, including bioengineering, environmental engineering, computer science, materials science, and manufacturing engineering. New initiatives are underway in the multidisciplinary area of environmental systems that should provide a wealth of opportunities to graduate students in chemical engineering.

### M.S. in Chemical Engineering

The Master's of Science degree in Chemical Engineering is a flexible and individually-structured program, determined by the student and his/her advisor. The MS can be a terminal degree or an introduction to research before pursuing the Ph.D.

There are two degree plans a student can choose. Plan 1 has a minimum requirement of 30 credit hours of graduate study, including 24 credits of coursework and 6 credits of thesis, with at least 12 credits of coursework in chemical engineering. A master's thesis must be completed and defended in an oral examination. Plan 2 also has a minimum requirement of 30 credit hours of graduate study, including at least 3 credits of an independent study course, with at least 15 credits in chemical engineering. Both plans are designed to be completed in about two years.

### Master's of Science with Thesis (Plan 1)

30 total credits:

- 24 credit hours of coursework, including at least 12 credits in chemical engineering (CEN);
- 6 credit hours of thesis;

## GRADUATE COURSE CATALOG

- student must complete a master's thesis and defend it in an oral examination (see below);
- no more than 50% of coursework at 500-level;
- minimum GPA of 3.0 for coursework included on the Program of Study for the degree;
- minimum GPA of 2.8 for all credits earned.

### Master's of Science Non-Thesis (Plan 2)

#### 30 total credits:

- at least 15 credits of coursework in chemical engineering (CEN);
- successful completion of the M.S. project course);
- after completion of the coursework, the student must pass an oral comprehensive examination based on the independent study and the coursework (see below);
- minimum GPA of 3.0 for coursework included on the Program of Study for the degree;
- minimum GPA of 2.8 for all credits earned.

### General Information for MS Degree Programs

#### Residence Time:

The MS degree typically requires three to four semesters to complete.

#### MS Project Class (Bioengineering and Chemical Engineering):

Effective Fall 2014, all non-thesis Master's students (plan 2 and 3 in Bioengineering, and plan 2 in Chemical Engineering) will be required to take the M.S. Project course. The successful completion of this course is a degree completion requirement. The project course will be optional for thesis students, on a space-available basis, with permission of the instructor.

#### Oral Comprehensive Examination (Bioengineering and Chemical Engineering):

The Oral Comprehensive Examination will be the culminating event of the M.S. Project courses in Bioengineering and Chemical Engineering.

Students will prepare and present the products/outcomes of their project to the departmental faculty and respond to questions from the faculty. The Oral Comprehensive Examination will occur once a year toward the end of the semester in which the M.S. Project courses take place. The examination committee will be composed of at least three department faculty, but all faculty are invited, and the examination will be scheduled to maximize faculty participation. The examination committee will meet separately to determine if the student has passed the examination, and the student will be informed of the decision. Students are required to submit an electronic copy and a printed copy on standard-size paper of presentation materials to the Graduate Secretary prior to the presentation.

#### Thesis Defense Requirements:

Completion of the MS degree with thesis requires a written MS thesis and an oral defense. Students must submit a Request for Examination Form to the GEMC at least three full weeks prior to the oral defense. The thesis document must be delivered to the MS Thesis defense committee at least two weeks prior to the date of the oral defense.

Defenses must comply with the requirements of the Graduate School as described in the Graduate Course Catalog. The MS Thesis defense committee consists of four members. The committee must include the thesis advisor, no fewer than two tenure-track members of the BMCE faculty, and the Chair of the Oral Examination Committee. If a proposed committee member is not a full-time or adjunct faculty member at Syracuse University (e.g. from SUNY-ESF, Upstate Medical University, etc.), the student must petition the Department to allow this person to serve as a committee member. The Chair of the Oral Examination Committee must be a Syracuse University tenured or tenure-track faculty member outside the department and program.

All students must submit two copies of the final version of the thesis, with the signed title page, to the Department in fulfillment of the requirements for the MS degree.

For information on the formatting of the final thesis document for submission to the Graduate School, see [http://www.syr.edu/gradschool/em/current\\_whatyouneed.html](http://www.syr.edu/gradschool/em/current_whatyouneed.html).

#### Civil Engineering, MS Department Chair/Program Director:

Dr. Ossama "Sam" Salem, 151 Link Hall, omsalem@syr.edu, 315-443-2311

### Civil Engineering Faculty

Riyad S. Aboutaha, Hossein Ataei, Shobha K. Bhatia, Eric M. Lui, Dawit Negussey, Ossama "Sam" Salem, Baris Salman

### Program Description

The graduate programs in civil engineering at Syracuse University have earned a reputation for superior quality and placing students at the center of attention. Degree recipients working in the public sector, private industry, and academic institutions have made important contributions to the profession. The Civil Engineering program provides coursework and research opportunities in structural engineering, geotechnical engineering, environmental engineering, infrastructure management, sustainable development, and construction engineering and management.

In addition to these core areas, the students and faculty in the Civil Engineering program engage in interdisciplinary teaching and research, expanding the opportunities available to graduate students. The department is home to the Center for Environmental Systems Engineering, which serves faculty in environmental, chemical, and mechanical engineering with a shared interest in environmental systems. The Geofoam Research Center is also administered in the department. We also have a collaborative degree program with the Maxwell School of Citizenship and Public Affairs and we engage in joint teaching with faculty in the School of Architecture, the Whitman School of Management, and at SUNY-ESF.

The M.S. degree in Civil Engineering is a flexible and individually structured program with either a thesis or non-thesis option. Students anticipating further graduate study at the doctoral level should pursue the thesis option. Applicants will also have the option of selecting one of three available tracks; Construction Engineering and Management, Geotechnical Engineering, or Structural Engineering. Students usually complete the M.S. degree within one to two years.

### Admission Requirements

1. B.S. in Civil Engineering or the equivalent from an accredited institution. Candidates with undergraduate degrees in another field must have their programs evaluated to determine if additional undergraduate courses are to be included in their program of study.

## GRADUATE COURSE CATALOG

2. At least a 3.0 in a 4.0 rating system or equivalent in the B.S. program coursework.
3. Satisfactory scores on all required graduate entrance examinations. A TOEFL score of 80 or higher is required for international students.
4. Departmental approval.

### Program Requirements

Programs are planned by the students in consultation with their advisors. At least half of the coursework must be at or above the 600 level. Students who have taken the lower level of a double-numbered course (e.g., a course offered at the 400 and 600 levels) may not take the higher level of the same course for credit.

M.S. candidates may transfer a maximum of 6 credits from other institutions. They are expected to complete their entire program within five calendar years of their admission.

Thesis and non-thesis options are available. Students anticipating further graduate study at the doctoral level should pursue the thesis option.

### Requirements with Thesis (30 credits)

1. Completion of 9 credits of core courses in either structural, geotechnical or construction engineering. These required courses are specified in the Graduate Program Profile, available in the department office.
2. Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile.
3. CIE 997 - Masters Thesis for 6 credits.
4. Defense of thesis.
5. Participation in the faculty/student seminar program (CIE 660).

### Requirements without Thesis (30 credits)

1. Completion of 9 credits of core courses in either structural, geotechnical or construction engineering. These required courses are specified in the Graduate Program Profile, available in the department office.
2. Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile.
3. Complete one of the following:  
CIE 996 - Master's Project (3 credits)  
CIE 995 - Master's Exit Paper (0 credits) and one additional elective course (3 credits).
4. Participation in the faculty/student seminar program (CIE 660).

Additional Information:

The Master's project must address a topic in civil engineering approved by the advisor and at least one additional reader.

The exit paper must address a topic related to their specialty. The paper can be original research work or it can be a critical review of a published journal article. The paper has a minimum length of 2000 words and requires approval of the student's advisor.

## Computational Journalism, MS

### Contact:

Stephen Masiclat, masiclat@syr.edu  
Professor, Co-Director, 255 Newhouse 3  
315-443-9243

Jae C. Oh, jco@syr.edu  
Associate Professor, Co-Director, 4-206 Sci & Tech

### Faculty

Aileen Gallagher, Roy Gutterman, Stephen M. Masiclat, Nancy McCracken, Kishan G. Mehrotra, Jae C. Oh, Adam R. Peruta

The computational Journalism program prepares students for the application of computation to the activities of journalism such as information gathering, organization, and dissemination while upholding values of journalism such as accuracy and verifiability. The program prepares students to learn computing fundamentals and skills required for supporting journalistic activities such as newsgathering, investigative journalism, verification/fact finding, and authoring/printing/publication/broadcasting of news, sharing and distribution of news information, editing and commenting on news.

### Admission:

Bachelor's degree from an accredited institution in Computer Science or Journalism, or Bachelor's degree from an accredited institution and significant experience working as a professional journalist (applicant must provide a portfolio of published/broadcast stories).

This 36-37 credit program leads to a Master of Science (M.S.) in Computational Journalism.

### Requirements:

Track No 1 Students with a B.S. in Computer Science or related degree

- **CIS 668 - Natural Language Processing**

**3 credit(s)** or

- **IST 664 - Natural Language Processing 3 credit(s)**
- **COM 670 - Experience Credit 1-6 credit(s)**
- **COM 698 - Media Law 3 credit(s)**
- **CPS 688 - Algorithms for Computational Journalism and Linguistics 3 credit(s)**
- **CPS 782 - Capstone Project Course for Computational Journalism 3 credit(s)**
- **GRA 617 - Visual Communications Theory and Practice 3 credit(s)**
- **ICC 505 - Web Journalism and Innovation 3 credit(s)**
- **NEW 605 - News Writing and Reporting 3 credit(s)**
- **MNO 601 - Principles: Business, History, and the Ethics of Journalism 3 credit(s)**
- **MNO 617 - Multiplatform Reporting and Writing 3 credit(s)**

Journalism elective, subject to advisor's approval (3 credits)

Total Credits: 36

Track No 2 Students with a B.A. or B.S. in Journalism

- **CIS 668 - Natural Language Processing 3 credit(s)** or
- **IST 664 - Natural Language Processing 3 credit(s)**
- **COM 670 - Experience Credit 1-6 credit(s)**
- **COM 698 - Media Law 3 credit(s)**
- **CPS 621 - Introduction to Probability and Statistics 4 credit(s)**
- **CPS 688 - Algorithms for Computational Journalism and Linguistics 3 credit(s)**
- **CPS 681 - Explorations in Computing and Programming 3 credit(s)**
- **CPS 782 - Capstone Project Course for Computational Journalism 3 credit(s)**
- **GRA 617 - Visual Communications Theory and Practice 3 credit(s)**
- **ICC 606 - Applied Research in Content Management 3 credit(s)**
- **NEW 535 - Newspaper and Magazine Practicum 1-3 credit(s)**

## GRADUATE COURSE CATALOG

A Newhouse, CIS/CPS, IST elective, subject to advisor's approval (3 credits)

Total Credits: 37

Possible Elective Choices (others allowed with advisor's approval):

CIS options

- **CIS 681 - Software Modeling and Analysis 3 credit(s)** or
- **CSE 681 - Software Modeling and Analysis 3 credit(s)**
- **CIS 687 - Object Oriented Design 3 credit(s)** or
- **CSE 687 - Object Oriented Design 3 credit(s)**

IST options

- **IST 657 - Basics of Information Retrieval Systems 3 credit(s)**
- **IST 719 - Information Visualization 3 credit(s)**
- **IST 736 - Text Mining 3 credit(s)**

Newhouse options

- **ICC 600 - Selected Topics 1-6 credit(s)**  
Advanced Web Journalism/Innovation
- **ICC 600 - Selected Topics 1-3 credit(s)**  
Multimedia Projects
- **MNO 617 - Multiplatform Reporting and Writing 3 credit(s)** (for students in track 2)

## Computer Engineering (Distance Format), MS

### Program Director

Qinru Qiu, 4-206 Center for Science and Technology, 315-443-4440, Fax: 315-443-2583; qiqiu@syr.edu

### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharnajad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu,

James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

### Description:

Syracuse University's mission is to prepare students for the world through an inclusive, interdisciplinary and collaborative education in which they reach beyond the classroom to test what they learn and engage with their industry community.

The MSCE courses cover a variety of specific subjects and skills within:

Hardware Systems  
Software Systems  
Security and Assurance Systems.

### Accreditation:

Accredited by Middle States Association of Colleges and Schools

### Admission:

Candidates are required to hold a Bachelor of Science degree and have acquired at least three years of industry experience in one of the following or a related field:

Electrical  
Electronics  
Communication  
Computer  
Software engineering

GRE Verbal score of 150 or better (using New GRE Score System); GRE Quantitative score of 155 or better (using New GRE Score System); GRE Analytical (multiple choice) score of 650 or better, or a score of 3.5 or better in the new Analytical Writing; for international students: TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better; grade point average (GPA) of 3.0/4.0 or better.

### Financial Support:

Syracuse University has a variety of financial aid programs to support graduate study, including scholarships, assistantships, and fellowships. These programs are administered within each of the University's academic departments, so the fastest and easiest way to determine what aid you may be eligible for is to connect with specific school or college staff. Federal Unsubsidized Loans for masters, professional and doctoral students are available for up to \$20,500, (see eligibility requirements).

Federal financial aid, including loans, requires that you file the Free Application for Federal Student Aid (FAFSA).

### Facilities:

Classes are taught entirely online. Classrooms are equipped with at least two cameras, microphones (for the instructor and students) smart boards and/or tablet monitors and each class session will be webcast live.

Online students have the option to attend the live class session through an online web conferencing platform or view the recording after the class has ended. The web conferencing platform provides interface includes three pods: 1) Camera view of the instructor, 2) Display of the smart board or tablet monitor and 3) Chat tool through which students can pose questions to the instructor and other students. The audio feed will include the instructor and students in the classroom.

Software-based labs are completed using various applications that are downloaded or accessed remotely by the student. These labs are supported by live and recorded explanations and demonstrations by faculty and teaching assistants. In some classes, live support sessions are held online to assist students while they are completing the labs in their locations.

Labs that require tactile manipulation of instruments can be completed locally if the student has access to appropriate equipment (oscilloscope, function generator, multi-meter, etc.). Students record their experiment results and report back to the instructor. In some cases student may be asked to capture their work on video or still images.

### Learning Outcomes:

- Produce a computational solution to a problem that is reproducible and can be comprehended by others in the same field.
- Communicate across disciplines and collaborate in a team.
- Model complex systems appropriately with consideration of efficiency, cost and data availability.
- Use computation for advanced data analysis.
- Create or enable a breakthrough in a domain in science.
- Take advantage of parallel and distributed computing and other emerging modes of computation, both in algorithms and in code implementation.
- Evaluate and compare multiple computational approaches to a scientific challenge and choose the most appropriate and efficient one.

## GRADUATE COURSE CATALOG

- Apply techniques and tools from software engineering to build robust, reliable, and maintainable software.

### Total Credits: 30

The Master of Science in Computer Engineering curriculum consists of 30 credit hours, 12 of which are from core courses, and the remaining credit hours are earned through elective courses.

### Degree:

Master of Science in Computer Engineering

### Transfer Credit:

A maximum of 9 transfer credits for students admitted to the online programs. This is consistent with the College's policy on transfer credit for residential part-time graduate students. Transfer credits are certified after the students complete their course work requirements. Upon completion of course work, the College forwards the necessary paperwork to the Graduate School, which certifies any transfer credits (as well as the credits completed with us) prior to graduation.

### Part-time Study:

The online MSCE program can be completed part-time.

### Satisfactory Progress:

The student must maintain a cumulative total GPA of at least a 3.0 in those courses to be credited towards the M.S. degree, and a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University.

## Computer Engineering, MS

### Program Director

Qinru Qiu, 4-133 Center for Science and Technology, 315-443- 1836, Fax 315-443-2583; qiqiu@syr.edu.

### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoong Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan,

Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

## Master of Science Programs

The requirements for the M.S. emphasize mastery of a field of knowledge and some familiarity with allied areas. Programs are tailored to meet the needs of the individual with certain general restrictions set by the department. All degree candidates are required to take work of a basic nature in several fields to provide the necessary breadth of knowledge.

The M.S. programs consist of at least 30 credits beyond the B.S. degree. A thesis is optional. Students who do not have B.S. degrees in electrical engineering or computer engineering are required to take specified additional courses at the undergraduate or graduate level to make up for deficiencies in their preparation.

In addition to the requirements outlined in the "Requirements for Graduate Degrees" section of this catalog, several departmental requirements apply to the M.S. in both electrical engineering and computer engineering. Not more than 6 credits of 500-level courses may be included in an M.S. program. A maximum of 9 credits of transfer credit may be included in M.S. programs. For further information, students may obtain a copy of the Transfer Credit Policy from the department. Early in the student's final semester, an official Program of Study form must be submitted to the department. A diploma request card must also be included.

## Admission Requirements

Each of these master's programs has its own admission committee that evaluates the overall academic record of an applicant. Each of these committees uses the following guidelines during the evaluation process:

- GRE Verbal score of 150 or better (using New GRE Score System);
- GRE Quantitative score of 155 or better (using New GRE Score System);
- GRE Analytical (multiple choice) score of 650 or better, or a score of 3.5 or better in the new Analytical Writing;
- for international students: TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better;
- grade point average (GPA) of 3.0/4.0 or better.

## Course Requirements

### 1. Graduate Work Beyond the B.S. Degree

A minimum of 30 credits of graduate work beyond the B.S. degree is required.

### 2. Cumulative Total GPA

The student must maintain a cumulative total GPA of at least a 3.0 in those courses to be credited towards the M.S. degree, and a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University.

### 3. A Maximum of 9 Credits of Transfer Credit of Graduate Coursework

A maximum of 9 credits of transfer credit of graduate coursework taken at another university with a grade of B or better may be included in an M.S. program.

### 4. A maximum of 12 Credits Taken at Syracuse University

A maximum of 12 credits taken at Syracuse University before the semester of admission may be included in an M.S. program provided they are relevant to a program in computer engineering and have a grade of B or better.

### 5. Preliminary Program of Study

Late in the first semester, the student fills out a preliminary program of study. Early in a student's final semester, a Program of Study must be submitted on forms available from the department. A Diploma Request Card must also be submitted at that time.

### 6. To Maintain Full-time Status in the EECS Department

To maintain full-time status in the EECS Department, students must register for at least 9 credits per semester. During the last semester of course work, student can take less than 9 credits be considered as full-time student. Part-time students must complete at least 6 credits per academic year.

### 7. Each student must select one of the three following tracks for the degree:

(1) Hardware Systems Track, (2) Software Systems Track, and (3) Security and Assurance Systems Track. Each student's program must include CSE 674\* and CSE 661. Moreover, each student in the Hardware Systems Track must include CSE

## GRADUATE COURSE CATALOG

664 and CSE 687 in their program, each student in the Software Systems Track must include CSE 681 and CSE 687 in their program, and each student in the Security and Assurance Systems Track must include CSE 643 and CSE 644 in their program. These courses represent the student's core program and are to be taken as early as possible in the program. In addition, each student's program must include at least two more elective track-specific courses in the selected track as specified by the Computer Engineering Program Committee. The followings are some examples of the track related electives.

Electives for Hardware System Track:

- **CSE 561 - Digital Machine Design 3 credit(s)**
- **CSE 788 - Computer-Aided Design from VLSI and Digital Systems 3 credit(s)**
- **ELE 643 - Theory of Semiconductor Devices 3 credit(s)**
- **CSE 671 - Embedded System Design 3 credit(s)**
- **CSE 731 - VLSI Timing Analysis 3 credit(s)**
- **CSE 765 - VLSI Testing and Verification 3 credit(s)**

Electives for Software Systems Track:

- **CIS 625 - Computer Graphics 3 credit(s)**
- **CIS 657 - Principles of Operating Systems 3 credit(s) (s)**
- **CSE 643 - Computer Security 3 credit(s)**
- **CSE 682 - Software Engineering 3 credit(s)**
- **CSE 776 - Design Patterns 3 credit(s)**
- **CSE 778 - Advanced Windows Programming 3 credit(s)**
- **CIS 623 - Structured Programming and Formal Methods 3 credit(s)**
- **CIS 644 - Internet Security 3 credit(s)**
- **CSE 686 - Internet Programming 3 credit(s)**
- **CSE 775 - Distributed Objects 3 credit(s)**
- **CSE 782 - Models and Metrics in Software Engineering 3 credit(s)**
- **CSE 784 - Software Engineering Studio 3 credit(s)**
- **CSE 787 - Analytical Data Mining 3 credit(s)**

Electives for Security and Assurance Systems Track:

- **CSE 774 - Principles of Distributed Access Control 3 credit(s)**
- **CSE 681 - Software Modeling and Analysis 3 credit(s)**
- **CIS 657 - Principles of Operating Systems 3 credit(s) (s)**
- **CSE 607 - Mathematical Basis for Computing 3 credit(s) (s)**
- **CIS 628 - Introduction to Cryptography 3 credit(s)**
- **CSE 765 - VLSI Testing and Verification 3 credit(s)**
- **CSE 687 - Object Oriented Design 3 credit(s)**

8. Programs must include a minimum of 18 credits of CSE courses

9. Final Examinations

Candidates are required to complete the final examinations in all core courses with an average grade of B- or better.

10. No more than 6 credits of 500-level courses may be included in an M.S. program

11. Taking Courses Offered by Other Department

Taking courses offered by other department or courses not directly relevant to computer engineering will require prior approval by the CE program committee.

12. Students may select a thesis option up to 6 credits

The Master's Thesis must be prepared in accordance with the Graduate School's instructions for the Preparation of Theses and Dissertations and must receive prior approval from the thesis advisor. Theses must be presented orally and defended before a faculty panel. Students electing the thesis option must include CSE 997 - Masters Thesis (normally 6 credits) in their programs of study.

13. Student may take up to 3 independent study credits

Anything above that will require prior approval from faculty advisor.

Note:

\*CSE 674 was formerly CSE 691 (Special Topics in Advanced Data Structure).

Computer Engineer Degree

## Admission Requirements

An M.S. in computer engineering, electrical engineering, or a related field from an accredited institution is required, with an average of 3.3 or better on a scale of 4.0. Applicants are informed of any additional requirements when their applications are processed.

## Guidance

Each student is assigned a guidance committee to help plan a program of study.

## Program Summary

The program consists of coursework, qualifying examinations, and a project. The minimum program consists of 60 credits beyond the B.S. degree, at least 4 ELE/CSE courses exclusive of independent study must be at or above the 700 level beyond M.S. degree. The student must maintain an average of 3.0 or better on a scale of 4.0.

## Qualifying Examination

Written qualifying examinations are administered at the end of the student's formal coursework. Each student is examined in specific topic areas.

The current list of topics and descriptions of the nature and scope of these examinations may be obtained from the department office. All examination topics must have the approval of the student's guidance committee and one topic must be in the student's major field.

Examination periods are scheduled twice a year. The student must take all examinations during the same examination period. Credit granted at other approved institutions does not exempt a student from any part of the qualifying examination.

## The Computer Engineer Degree Project

CSE 995 This project allows the student to undertake an investigation which may be original research, an application of the state-of-the-art, a solution of a set of related minor problems, or a critical survey of a special topic. The topic may

## GRADUATE COURSE CATALOG

be suggested by a faculty member or, preferably, by the student. The student is assigned a project advisor, who must approve the topic and agree to direct the work. Students with engineering employment may make arrangements to carry out the project work on the employer's premises or laboratory, provided the advisor has unrestricted access to the work. A formal project report and a final examination on this report are required after the completion of all graduate work.

### Time Limit

Degree requirements must be completed within a period of three years after the student passes the qualifying examinations.

### Computer Science (Distance Format), MS

### Program Director

Susan Older, 4-181 Center for Science and Technology, 315-443-4679, Fax 315-443-2583; sueo@ecs.syr.edu

### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoong Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

### Description:

The Computer Science program at Syracuse University has two special characteristics: flexibility in its program structure and emphasis on mathematical content.

### Accreditation:

Accredited by Middle States Association of Colleges and Schools

### Admission:

Students have a minimum of a Bachelor of

Science in Computer Science and 1-2 years of related experience acquired either through a job, post-graduate internship or undergraduate research project. A smaller number of students have undergraduate degrees in math or business.

GRE Verbal score of 150 or better (using New GRE Score System); GRE Quantitative score of 155 or better (using New GRE Score System); GRE Analytical (multiple choice) score of 650 or better, or a score of 3.5 or better in the new Analytical Writing; for international students: TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better; grade point average (GPA) of 3.0/4.0 or better.

### Financial Support:

Syracuse University has a variety of financial aid programs to support graduate study, including scholarships, assistantships, and fellowships. These programs are administered within each of the University's academic departments, so the fastest and easiest way to determine what aid you may be eligible for is to connect with specific school or college staff. Federal Unsubsidized Loans for masters, professional and doctoral students are available for up to \$20,500, (see eligibility requirements).

Federal financial aid, including loans, requires that you file the Free Application for Federal Student Aid (FAFSA). You can start the federal application process by completing all the items found on your MySlice Financial Aid To Do List, after you have been admitted.

### Facilities:

Classes are taught entirely online. Classrooms are equipped with at least two cameras, microphones (for the instructor and students) smart boards and/or tablet monitors and each class session will be webcast live.

Online students have the option to attend the live class session through an online web conferencing platform or view the recording after the class has ended. The web conferencing platform provides interface includes three pods: 1) Camera view of the instructor, 2) Display of the smart board or tablet monitor and 3) Chat tool through which students can pose questions to the instructor and other students. The audio feed will include the instructor and students in the classroom.

Software-based labs are completed using various applications that are downloaded or accessed remotely by the student. These labs are supported by live and recorded explanations and demonstrations by faculty and teaching assistants. In some classes, live support sessions are held online to assist students while they are completing the labs in their locations.

Labs that require tactile manipulation of instruments can be completed locally if the student has access to appropriate equipment (oscilloscope, function generator, multi-meter, etc.). Students record their experiment results and reported back to the instructor. In some cases student may be asked to capture their work on video or still images.

### Learning Outcomes:

The purpose of the master's program is to provide students with the knowledge and skills necessary for a professional career or doctoral studies. This is done through course work in the foundational elements of the field and in at least one graduate specialization. Areas of specialization include artificial intelligence, bio-computation, computer and network security, human-computer interaction, information management and analytics, mobile and internet computing, real-world computing, software theory, systems, and theoretical computer science.

### Total Credits: 30

A candidate for MSCS degree is required to take 10 graduate level courses (30 credits), including four required (core) courses (see below). The remaining six courses are chosen by the candidate from a wide range of graduate level courses in computer science and computer engineering offered each semester to form a coherent program of study. Students found to be deficient in certain areas may be required to take a remedial course in their first semester of study.

### Degree:

Master of Science in Computer Science

### Transfer Credit:

A maximum of 9 transfer credits for students admitted to the online programs. This is consistent with the College's policy on transfer credit for residential part-time graduate students. Transfer credits are certified after the students complete their course work requirements. Upon completion of course work, the College forwards the necessary paperwork to the Graduate School, which certifies any transfer credits (as well as the credits completed with us) prior to graduation.

### Part-time Study:

The online MSCS program can be completed part-time.

### Satisfactory Progress:

The student must maintain a cumulative total GPA of at least a 3.0 in those courses to be

## GRADUATE COURSE CATALOG

credited towards the M.S. degree, and a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University.

### Computer Science, MS

#### Program Director

Susan Older, 4-181 Center for Science and Technology, 315-443-4679, Fax 315-443-2583; sueo@ecs.syr.edu

#### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

### Master of Science Programs

For students who want to expand their technical expertise beyond their undergraduate major, the Department of Electrical Engineering and Computer Science (EECS) offers master of science (M.S.) degrees in computer engineering, computer science, and electrical engineering. EECS has a long and distinguished record of graduate education, with many of our graduates placed in key positions in industry. Graduates from our master's programs are well represented in such corporations as IBM, General Electric, Lockheed Martin, Microsoft, and Intel. In all of these degrees, students have the option of completing the M.S. degrees by taking only courses, or by combining coursework with a master's thesis.

Students who are contemplating continuing their studies at the Ph.D. level are encouraged to complete an M.S. degree with the thesis option. Students enrolled in the non-thesis option in one of these M.S. programs may finish the M.S. degree in one year if they choose. To accomplish this, students must take courses in the fall, spring, and summer semesters. Students may also complete the degree in a less intensive fashion over three or four regular semesters.

Furthermore, students have the opportunity to have an industrial experience as part of their programs of study by working in an industrial setting for a block period of three to four months. Students may work up to a maximum two blocks during their master's program of study under the curriculum practical training (CPT) option.

Professionals having a baccalaureate degree in fields other than computer engineering, computer science, or electrical engineering who are seeking a career change may take advantage of an opportunity to obtain an M.S. degree in one of these fields by combining suitable remedial undergraduate coursework with the regular program of graduate study.

### Admission Requirements

Each of these master's programs has its own admission committee that evaluates the overall academic record of an applicant. Each of these committees uses the following guidelines during the evaluation process:

- GRE Verbal score of 150 or better (using New GRE Score System);
- GRE Quantitative score of 155 or better (using New GRE Score System);
- GRE Analytical (multiple choice) score of 650 or better, or a score of 3.5 or better in the new Analytical Writing;
- for international students: TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better;
- grade point average (GPA) of 3.0/4.0 or better.

Each candidate must submit a coherent program of 10 graduate courses (30 credits), which must be passed with a grade point average of 3.0 (B) or better. Students also need to satisfy a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University. In each of the core courses, the student must achieve a grade of B- or better. No more than 6 credits of 500-level courses may be included in the program. However, CIS 551 cannot be included in any M.S. in computer science program of study. The Graduate School requires that master's programs be completed within seven years and that the student maintain a satisfactory rate of progress toward completion of degree requirements at all times. Within this program the student may elect to prepare and defend a master's thesis, in accord with the rules of the Graduate School, for up to six of the required 30 credits.

### Computer Science Core

All candidates for the M.S. in computer science

must complete the computer science core:

- **CIS 623 - Structured Programming and Formal Methods 3 credit(s)**
- **CIS 655 - Computer Architecture 3 credit(s)**
- **CIS 657 - Principles of Operating Systems 3 credit(s)**
- **CIS 675 - Design and Analysis of Algorithms 3 credit(s)**

### Final Examinations and GPA Requirements

Candidates are required to complete the final examinations in all core courses with an average grade of 2.667 (B-) or better.

### English Proficiency Requirement

Students whose native language is not English will be required to demonstrate proficiency, both written and oral, in the English language. Students found to be deficient will be strongly advised to take remedial courses outside the degree program. Students with inadequate background in discrete mathematics and data structures may be required to take remedial courses, and those remedial courses cannot be counted toward the 30 credits required for the master's degree. The program must include a minimum of 18 credits of CIS courses and 8 courses at the 600-level or higher. Where applicable, students are required to complete stated prerequisites before enrolling in advanced courses. Responsibility for seeing that prerequisites are met rests with the student. To maintain full-time status in the EECS department, students must register for 9 credits per semester. Part-time students must complete at least 6 credits per academic year. Other program regulations may exist. Students are expected to follow all program regulations.

### One-Year M.S. Program in Computer Science

Students with a strong academic preparation may finish the master's degree in computer science in one year if they choose to do so. To do this, they must start the program in the fall semester, take four courses in the fall semester, four courses in the spring semester, and two courses in the summer. Students may also complete the degree in a less intensive fashion over three or four semesters.

International students must be enrolled for at least nine credits (usually three courses) during the fall semester and at least nine credits in the spring semester (for a total of at least 18 credits per year).



# GRADUATE COURSE CATALOG

## Three-Year M.S. Plan

The baccalaureate degree in many fields outside computer science may not constitute adequate preparation for the mathematical and technical aspects of graduate study in computing. Students with such a background who nevertheless are seriously interested in a graduate degree in computer science may achieve the needed preparation by combining suitable undergraduate coursework with the regular program of graduate study requiring an additional year of coursework. Students beginning this work should have one year of calculus equivalent to MAT 295 and MAT 296, and at least one high-level programming language equivalent to CPS 196 Introduction to Computer Programming: C, or CPS 335 JAVA Programming for the Internet. (See Syracuse University Undergraduate Catalog for descriptions of MAT 295, MAT 296, CPS 196, CPS296, CPS 335.) The following three-year plan of combined undergraduate and graduate coursework provides the student with the preparation described above, needed for completion of the graduate courses for the M.S. Courses numbered below 500 do not carry graduate credit and constitute the intermediate preparation needed for graduate courses listed later in the plan. Requirements for the M.S. in computer science remain as described above.

### First semester (Fall)

- CIS 375 - Introduction to Abstract Mathematics
- ECS 102 - Introduction to Computing
- CIS 351 - Data Structures

### Second Semester (Spring)

- CIS 252 - Introduction to Computer Science
- CIS 352 - Programming Languages: Theory and Practice
- CIS 341 - Computer Organization and Programming Systems
- CIS 342 - Introduction to Systems Programming

### Third Semester (Fall)

- One graduate elective
- CIS 486 - Design of Operating Systems \*
- **CIS 675 - Design and Analysis of Algorithms 3 credit(s)**

### Fourth Semester (Spring)

- **CIS 623 - Structured Programming and Formal Methods 3 credit(s)**
- **CIS 655 - Computer Architecture 3 credit(s)**

- CSE 486 - Design of Operating Systems \*
- One elective graduate course

### Note:

\*Those who cannot take CIS 486 in the Fall semester may take CSE 486 in the Spring semester

### Fifth Semester (Fall)

- **CIS 657 - Principles of Operating Systems 3 credit(s)**
- Two elective graduate courses

### Sixth Semester (Spring)

- Two elective graduate courses

## Exemption Examinations

Exemption examinations are given in certain of these courses so that the student may determine whether he/she already has equivalent knowledge of the subject material.

## Admission

The graduate advisor is guided by the following admission requirements, which are intended to be the equivalent of the level of competency attained by a holder of the B.S. in computer science from the Department of Electrical Engineering and Computer Science.

## Academic Competency Requirements

Candidates are expected to possess competency in the following areas at a level equivalent to at least one of the indicated courses to each area. When an applicant's record indicates deficiencies in any of these areas, the graduate advisor will require that appropriate remedial courses be taken. Graduate level courses taken for remediation may be included in an M.S. program to the extent permitted by other requirements.

### (1) Higher-Level programming

- CIS 351 - Data Structures
- CIS 352 - Programming Languages: Theory and Practice
- CIS 453 - Software Specification and Design
- CIS 454 - Software Implementation

### (2) Assembly Language Programming/Systems

- CIS 341 - Computer Organization and Programming Systems
- CIS 486 - Design of Operating Systems

### (3) Mathematics

- CIS 375 - Discrete Mathematics

### (4) Theoretical Computer Science

- CIS 473 - Computability Theory

### (5) Algorithms and Computational Techniques

- CIS 477 - Introduction to Analysis of Algorithms
- **MAT 581 - Numerical Methods with Programming 3 credit(s)**

## Combined B.S./M.S. Degree in Computer Science

This combined degree program is designed for students who want to consecutively complete the bachelor's and the master's degree in computer science. The program may be completed in five years with students taking two master's degree courses in their senior year. Up to 3 credits may be shared between the two programs of study, so that the M.S. requires only 27 additional credits.

Admission to this program, usually requested in the junior year, will be based on academic progress.

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.

## Concurrent M.S. Degrees in Computer Science and Mathematics

## Master of Science in Computer Science and Mathematics

In collaboration with the Mathematics Department in the College of Arts & Sciences, the Department of Electrical Engineering and Computer Science offers concurrent M.S. degrees in computer science and mathematics. Students complete a total of 51 credits, 30 in mathematics and 21 in computer science. Students who want to pursue

## GRADUATE COURSE CATALOG

this program should have a solid background in undergraduate mathematics, and knowledge of programming in high-level languages and of algorithms and data structures adequate for graduate study in computer science.

For further information, please contact the Graduate Enrollment Management Center, 315-443-4492, grad@syr.edu

Current EECS students: please contact the EECS Graduate Records Office, 315-443-2655, cvsalang@syr.edu

### Cybersecurity, MS

#### Contact:

Dr. Kishan Mehrotra, Professor and Chair, mehrotra@syr.edu  
4-177 Center for Science and Technology  
315-443- 2811

#### Faculty:

Drs. Susan Older, sueo@ecs.syr.edu, Shiu-Kai Chin, skchin@syr.edu, Stephen Chapin, chapin@syr.edu, Howard Blair, blair@syr.edu, James Royer, jsroyer@syr.edu, Wenliang Du, wedu@syr.edu, Heng Yin, heyin@syr.edu, Chilukuri Mohan, ckmohan@syr.edu, Jae Oh, jcoh@syr.edu

#### Description:

Students will be taking four core courses and six elective courses, for a total of 30 credits, with a final GPA of 3.0 in these courses, and a GPA of 2.8 in all courses taken at SU.

#### Admission:

- BS in computer science, computer engineering, or closely related field with at least 3.0 GPA;
- GRE Verbal score of 150 or better (using New GRE Score System);
- GRE Quantitative score of 155 or better (using New GRE Score System);
- GRE Analytical (multiple choice) score of 650 or better, or a score of 3.5 or better in the new Analytical Writing;
- for international students: TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better;
- grade point average (GPA) of 3.0/4.0 or better.
- Basic systems knowledge
- Fundamentals of traps, interrupts, and trap handling at the instruction-set architecture (ISA) level, not at the cycle-simulation level
- Concurrency and coordination mechanisms

(semaphores, locking, critical regions)

- Access-control matrices, basics of access-control lists and capabilities
- Systems programming basics: makefiles, C (including the care required by pointers and memory management), systems calls, shell scripting, pipes and filters, non-IDE programming
- Data structures: stacks, queues, lists, hash tables, trees
- Discrete mathematics: symbolic logic and formal proofs (i.e., use of inference rules), sets, relations
- High-level programming experience

#### Financial Support:

Some, but not all, students are provided merit-based tuition scholarships.

#### Learning Outcomes:

This program has been designed to produce graduates who possess the abilities to;

- identify and analyze vulnerabilities in systems;
- assess risks faced by systems;
- develop countermeasures to remedy risks;
- develop systems that are secure; and deliver software components or systems that have verifiable assurance properties.

#### Requirements:

##### 18-credit core:

- **CSE 643 - Computer Security 3 credit(s)**
- **CSE 644 - Internet Security 3 credit(s)**
- **CSE 634 - Assurance Foundations 3 credit(s)**
- **CSE 652 - Building Assured Components 3 credit(s)**
- **CIS 657 - Principles of Operating Systems 3 credit(s)**
- **CIS 675 - Design and Analysis of Algorithms 3 credit(s)**

##### 6 credits of technical cyber security electives: Technical Cyber security Electives

- **CIS 628 - Introduction to Cryptography 3 credit(s)**
- **CIS 632 - Modeling Concurrent Systems 3 credit(s)**

- **CSE 664 - VLSI Design Methods 3 credit(s)**
- **CIS 655 - Computer Architecture 3 credit(s)** or
- **CSE 661 - Advanced Computer Architecture 3 credit(s)**
- **CSE 774 - Principles of Distributed Access Control 3 credit(s)**
- **CIS 752 - Wireless Network Security 3 credit(s)**
- Any 700-level security courses from EECS

##### 3 credits of non technical cyber security electives: Policy/Law/Organization Electives

- **LAW 775 - Internet Law 3 credit(s)**
- **LAW 832 - Cyber Security Law and Policy 3 credit(s)**
- **IST 629 - Organizational Information Security 3 credit(s)**
- **IST 728 - Information Security Policy 3 credit(s)**
- **PSC 655 - Global Information Technology Policy 3 credit(s)**
- **PSC 755 - Politics and Governance in the Information Age 3 credit(s)**

##### 3 Additional Credits

3 additional credits, drawn from the technical or nontechnical cyber security electives or from any CIS/CSE courses at the 600-level or higher

##### Total Credits Required: 30

##### Degree Awarded:

Master of Science in Cybersecurity

##### Transfer Credit:

Up to 9 credits may be transferred from other schools, upon evaluation of details by the program director or department chair.

##### Part-time Study:

Part-time study may be permitted, but the program must be completed within four years from the date of admission into the program.

##### Satisfactory Progress:

A GPA of 3.0 must be maintained throughout the program, else matriculation may be terminated.

### Electrical Engineering (Distance Format), MS

#### Contact:

#### Program Director

Prasanta K. Ghosh, 4-131 Center for Science and Technology, 315-443-4440, Fax: 315-443-2583; pkgghosh@syr.edu

#### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Sultz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

#### Description:

The curriculum is built around current industry innovations and trend; the program pushes engineers to the forefront of their field with an immersive and concentrated educational experience.

Explore scientific principles and applications of electrical engineering such as:

Digital Communication and Circuits  
Electromagnetic Fields  
Signal Processing and System Design.

#### Accreditation:

Accredited by Middle States Association of Colleges and Schools.

#### Admission:

Candidates are required to hold a Bachelor of Science degree and have acquired at least three years of industry experience in one of the following or a related field:

Electrical  
Electronics  
Communication  
Computer

Software engineering  
GRE Verbal score of 150 or better (using New GRE Score System); GRE Quantitative score of 155 or better (using New GRE Score System); GRE Analytical (multiple choice) score of 650 or better, or a score of 3.5 or better in the new Analytical Writing; for international students: TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better; grade point average (GPA) of 3.0/4.0 or better.

#### Financial Support:

Syracuse University has a variety of financial aid programs to support graduate study, including scholarships, assistantships, and fellowships. These programs are administered within each of the University's academic departments, so the fastest and easiest way to determine what aid you may be eligible for is to connect with specific school or college staff. Federal Unsubsidized Loans for masters, professional and doctoral students are available for up to \$20,500, (see eligibility requirements).

Federal financial aid, including loans, requires that you file the Free Application for Federal Student Aid (FAFSA).

#### Facilities:

Classes are taught entirely online. Classrooms are equipped with at least two cameras, microphones (for the instructor and students) smart boards and/or tablet monitors and each class session will be webcast live.

Online students have the option to attend the live class session through an online web conferencing platform or view the recording after the class has ended. The web conferencing platform provides interface includes three pods: 1) Camera view of the instructor, 2) Display of the smart board or tablet monitor and 3) Chat tool through which students can pose questions to the instructor and other students. The audio feed will include the instructor and students in the classroom.

Software-based labs are completed using various applications that are downloaded or accessed remotely by the student. These labs are supported by live and recorded explanations and demonstrations by faculty and teaching assistants. In some classes, live support sessions are held online to assist students while they are completing the labs in their locations.

Labs that require tactile manipulation of instruments can be completed locally if the student has access to appropriate equipment (oscilloscope, function generator, multi-meter, etc.). Students record their experiment results and report back to the instructor. In some cases student may be asked to capture their work on video or still images.

Knowledge Outcomes:

- Knowledge of the fundamentals of mathematics and science.
- Knowledge of the engineering principles.
- Focus on a specialization field in Electrical Engineering.
- Knowledge of current events and contemporary societal issues.
- Knowledge of the state-of-the-art Information Technologies.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context (ABETH).

Skill Outcomes:

- 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.
- Ability to identify, formulate, and solve Electrical Engineering problems.
- Ability to function in multidisciplinary teams.
- Capability to use state-of-art engineering/computer tools necessary for engineering practice.
- Skill to find and use available technical information.
- Ability to communicate effectively orally.
- Ability to communicate effectively in written reports.
- Skills to organize and synthesize information.
- Ability to design and conduct experiments, tests, or simulations, as well as analyze and interpret data to validate his/her assumptions and hypotheses.
- Ability to evaluate current electrical engineering techniques.

Attitude Outcomes:

- Recognition of the need and ability to engage in lifelong learning.
- Understanding of their professional and ethical responsibilities.
- An understanding of responsibility and accountability.
- A desire to be a flexible and adaptable team player.
- Recognition of the significance to be a self-grower.
- Showing mental robustness and accepting increasing challenges.

**Total Credits: 30**

## GRADUATE COURSE CATALOG

The Master of Science in Electrical Engineering program consists of 30 credit hours to be earned over the course of 20 months. The curriculum will include 10 courses total comprising of 4 core courses and a choice of 6 electives.

### Degree:

Master of Science in Electrical Engineering

### Transfer Credit:

A maximum of 9 transfer credits for students admitted to the online programs. This is consistent with the College's policy on transfer credit for residential part-time graduate students. Transfer credits are certified after the students complete their course work requirements. Upon completion of course work, the College forwards the necessary paperwork to the Graduate School, which certifies any transfer credits (as well as the credits completed with us) prior to graduation.

### Part-time Study:

The online MSEE program can be completed part-time.

### Satisfactory Progress:

The student must maintain a cumulative total GPA of at least a 3.0 in those courses to be credited towards the M.S. degree, and a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University.

## Electrical Engineering, MS

### Program Director

Prasanta K. Ghosh, 4-131 Center for Science and Technology, 315-443-4440, Fax: 315-443-2583; pkgghosh@syr.edu.

### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk GURSOY, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

## Master of Science Programs

The requirements for the M.S. emphasize mastery of a field of knowledge and some familiarity with allied areas. Programs are tailored to meet the needs of the individual with certain general restrictions set by the department. All degree candidates are required to take work of a basic nature in several fields to provide the necessary breadth of knowledge.

The M.S. programs consist of at least 30 credits beyond the B.S. degree. A thesis is optional. Students who do not have B.S. degrees in electrical engineering or computer engineering are required to take specified additional courses at the undergraduate or graduate level to make up for deficiencies in their preparation.

In addition to the requirements outlined in the "Requirements for Graduate Degrees" section of this catalog, several departmental requirements apply to the M.S. in both electrical engineering and computer engineering. Not more than 6 credits of 500-level courses may be included in an M.S. program. A maximum of 9 credits of transfer credit may be included in M.S. programs. For further information, students may obtain a copy of the Transfer Credit Policy from the department. Early in the student's final semester, an official Program of Study form must be submitted to the department. A diploma request card must also be included.

Admission Requirements Each of these master's programs has its own admission committee that evaluates the overall academic record of an applicant. Each of these committees uses the following guidelines during the evaluation process:

- GRE Verbal score of 150 or better (using New GRE Score System);
- GRE Quantitative score of 155 or better (using New GRE Score System);
- GRE Analytical (multiple choice) score of 650 or better, or a score of 3.5 or better in the new Analytical Writing;
- for international students: TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better;
- grade point average (GPA) of 3.0/4.0 or better.

## M.S. in Electrical Engineering

### Course Requirements

#### 1. Graduate Work Beyond the B.S. Degree

A minimum of 30 credits of graduate work beyond the B.S. degree is required.

#### 2. Cumulative Total GPA

The student must maintain a cumulative total GPA of at least a 3.0 in those courses to be credited towards the M.S. degree, and a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University.

#### 3. A Maximum of 9 Credits of Transfer Credit of Graduate Coursework

A maximum of 9 credits of transfer credit of graduate coursework taken at an other university with a grade of B or better may be included in M.S. programs.

#### 4. A Maximum of 12 Credits Taken at Syracuse University

A maximum of 12 credits taken at Syracuse University before the semester of admission may be included in an M.S. program provided they are relevant to a program in electrical engineering and have a grade of B- or better.

#### 5. Preliminary Program of Study

Late in the first semester, the student fills out a preliminary program of study. Early in a student's final semester, a Program of Study must be submitted on forms available from the department. A Diploma Request Card must also be submitted at that time.

#### 6. To Maintain Full-time Status in the EECS Department

To maintain full-time status in the EECS Department, students must register for 9 credits per semester. Part-time students must complete at least 6 credits per academic year.

#### 7. Each student is required to take four required courses which are composed of:

One of the two engineering math courses:

- **ELE 603 - Functional Methods of Engineering Analysis 3 credit(s)**
- **ELE 606 - Probabilistic Methods in Electrical Engineering 3 credit(s)**

One course in electromagnetics:

- **ELE 621 - Electromagnetic Fields 3 credit(s)**

Digital Communications:

- **ELE 651 - Digital Communications 3 credit(s)**

## GRADUATE COURSE CATALOG

One of the three courses:

- **ELE 633 - Discrete and Integrated Analog Electronic Circuits 3 credit(s)**
- **ELE 635 - Digital Electronic Circuits 3 credit(s)**
- **ELE 643 - Theory of Semiconductor Devices 3 credit(s)**

### Additional Course Requirements

These courses represent the student's core program and are to be taken as early as possible. In addition, students are required to complete stated prerequisites before enrolling in advanced courses. Responsibility for seeing that prerequisites are satisfied rests with the student.

8. Programs must include a minimum of 21 credits of ELE courses

9. Students may select a thesis option

Students may select a thesis option. For students choosing the thesis option, at least 3 credits must be from a 700 or higher level ELE course. For students choosing the non-thesis option, at least 9 credits must be from 700 or higher level courses, of which at least 6 credits must be ELE courses. Independent study courses may not be used to satisfy this requirement. Students must get prior approval to take courses from other programs/departments.

10. No more than 6 credits of 500-level courses may be included in the M.S. program

11. Preparation of Theses and Dissertations

The master's thesis must be prepared in accordance with the Graduate School's instructions for the Preparation of Theses and Dissertations and must be approved by the thesis advisor. Theses must be presented orally and defended before a faculty panel.

12. Final Examinations

Candidates are required to complete the final examinations in all core courses with an average grade of B- or better.

13. Students May Select the Remaining Courses from the Graduate Offerings

Students may select the remaining courses from the graduate offerings of this or other departments, provided these courses have technical content appropriate to their M.S. program. In such cases students must request department approval prior to registering for these courses by completing a petition to the faculty.

14. Students Electing the Thesis Option

Students electing the thesis option must include ELE 997 - Masters Thesis (normally 6 credits) in their programs of study.

15. Students Who Do Not Hold a B.S. Degree in Electrical Engineering

Students who do not hold a B.S. degree in electrical engineering or a related field may be admitted to a 60-credit program. This program includes the following remedial undergraduate courses:

The following eight courses:

- ELE 231 - Electrical Engineering Fundamentals I and
- ELE 232 - Electrical Engineering Fundamentals II
- ELE 291 - Electrical Engineering Laboratory I and
- ELE 292 - Electrical Engineering Laboratory II
- ELE 346 - Semiconductor Devices
- ELE 331 - Digital Circuits and Systems
- ELE 324 - Electromagnetics I
- ELE 333 - Analog Circuits

One of the following two courses:

- ELE 351 - System and Signal Analysis or
- ELE 352 - Digital Signal Processing

At least two technical elective courses such as:

- ELE 416 - Electromechanical Devices
- ELE 424 - Transmission Lines for Computers and Communications
- ELE 425 - Microwave Engineering
- ELE 431 - Analog Circuits and Systems
- ELE 458 - Data Networks: Basic Principles
- **ELE 512 - Linear Control Systems 3 credit(s)**
- **ELE 524 - Introduction to Applied Optics 3 credit(s)**

- **ELE 541 - Integrated Circuits 3 credit(s)**
- **ELE 551 - Communication Systems 3 credit(s)**

### Additional Information

In addition, students, depending on their background, may need to take remedial physics and mathematics courses.

Students who have demonstrated competence in any of the above subjects may request a waiver of the corresponding courses. The remedial coursework must be completed prior to registering for graduate courses. The remaining 30 credits must satisfy the requirements for the MSEE program.

### Electrical Engineer Degree

The degree of electrical engineer allows qualified students to pursue their graduate education beyond the M.S. 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.

## Admission Requirements

1. B.S. in electrical or computer engineering or a related field with an average of 3.0 or better on a scale of 4.0 from an accredited institution, or
2. M.S. in electrical or computer engineering or a related field.

Applicants are informed of any additional requirements when their applications are processed.

## Guidance

Each student is assigned a guidance committee to help plan the program of study.

## Program Summary

The program consists of coursework, qualifying examinations, and a project. The minimum program consists of 60 credits beyond the B.S. including 6 credits for the Engineer Degree Project (ELE 995). The student must maintain at least a 3.0 average.

## Required Courses

A student's program must include the coursework required for the M.S. degree in electrical engineering, computer engineering, or an acceptable related area completed either at Syracuse University or elsewhere. In addition, the

## GRADUATE COURSE CATALOG

student must take at least 4 ELE/CSE courses at or above the 700 level beyond M.S. degree; Independent study courses may not be used to satisfy this requirement.

### Qualifying Examinations

Students working toward an electrical engineer degree must pass the written qualifying examinations required for the Ph.D. Students are examined on basic undergraduate and graduate material in electrical engineering, computer engineering, and applied mathematics. The current list of areas and descriptions of the nature and scope of these examinations can be obtained from the department office. The examinations may not be taken more than twice. Credit granted for work at other approved institutions does not exempt a student from the qualifying examinations.

### The Electrical Engineer Degree Project

ELE 995 - Engineer Degree Project ELE 995 carries 6 credits. The student undertakes an investigation which may be original research, an application of the state-of-the-art, a solution of a set of related problems, or a critical survey of a special topic. The student is assigned a project advisor who must approve the topic and agree to direct the work. Students with engineering employment may make arrangements to carry out the project work at the employer's premises or laboratory, provided the advisor has unrestricted access to the work. A formal project report and a final oral examination on the project are required after completion of all graduate work.

### Energy Systems Engineering, MS

#### Contact:

Prof. H. E. Khalifa, hekhalif@syr.edu  
263E Link Hall  
Tel: 315-443-1286

#### Faculty

Jeongmin Ahn, Benjamin Akih-Kumgeh, Jesse Q. Bond, Thong Dang, Cliff I Davidson, Prasanta Ghosh, H. Ezzat Khalifa, Shalabh Maroo, Lawrence L. Tavlarides, Jianshun S. Zhang

#### Description:

The MSESE prepares students for professional careers in energy systems engineering and

research. The program covers fundamental and applied courses on the analysis, design and optimization of thermo-mechanical, nuclear, renewable and electrical energy systems.

### Admission Requirements

Admission to the M.S. degree program is granted on the basis of undergraduate preparation and performance, GRE scores, and letters of recommendation documenting the recent technical proficiency of the applicant. A grade-point average (GPA) of 3.0 or higher on a 4.0 scale (or equivalent), and a GRE Quantitative Reasoning score of 700 or higher (155 or higher on the new scale) are normally expected.

Admission to this M.S. degree program requires a Bachelor's degree in Engineering, or an acceptable field of Science.

If a student's background is not particularly strong in mechanical or aerospace engineering, he/she may be required to take undergraduate courses (not counted towards the M.S. degree) as specified in the letter of admission.

### General Requirements

A student seeking an MS Degree in Energy Systems Engineering (MSESE) must complete ten (10) 3-credit courses, no more than four (4) of which can be at the 500-level, the remainder must be at the 600-level or higher.

### Required Core Courses

The following courses are required in this core:

- **ECS 650 - Managing Sustainability: Purpose, Principles, and Practice 3 credit(s)**
- **MAE 548 - Engineering Economics and Technology Valuation 3 credit(s)**
- **MAE 551 - Energy Conversion 3 credit(s)**
- **ECS 629 - Modeling and Optimization Techniques 3 credit(s)** or
- **MAE 671 - Numerical Methods in Mechanical Engineering 3 credit(s)** or
- **MAE 675 - Methods of Analysis in Mechanical Engineering 3 credit(s)** or
- **CEN 671 - Chemical Engineering Methods I 3 credit(s)**

### Energy Systems Tracks

Select any 3 courses (9 credits) from one of the 3 tracks listed below:

#### Thermal Energy Track

- **MAE 553 - HVAC Systems Analysis and**

#### Design 3 credit(s)

- **MAE 554 - Principles of Refrigeration 3 credit(s)**
- **MAE 585 - Principles of Turbomachines 3 credit(s)**
- **CEN 542 - Heat and Mass Transfer Operations 3 credit(s)**
- **MAE 643 - Fluid Dynamics 3 credit(s)**
- **MAE 651 - Advanced Thermodynamics 3 credit(s)** or
- **CEN 651 - Chemical Engineering Thermodynamics 3 credit(s)**
- **MAE 655 - Advanced Heat Transfer 3 credit(s)** or
- **CEN 741 - Transport Phenomena I 3 credit(s)** or
- **MAE 657 - Convective Heat and Mass Transfer 3 credit(s)**
- **MAE 658 - Building Environmental Modeling and Simulations 3 credit(s)**
- **MAE 659 - Building Materials and Envelope 3 credit(s)**
- **MEE 757 - Heat Exchange Systems 3 credit(s)**
- **MAE 765 - Combustion Phenomena in Engineering 3 credit(s)**

#### Alternative Energy Track

- **NUC 510 - Nuclear Reactor Design, Operation and Safety 3 credit(s)**
- **NUC 520 - Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation 3 credit(s)**
- **CEN 573 - Principles and Design in Air Pollution Control 3 credit(s)**
- **MAE 587 - Design of Solar Energy System 3 credit(s)**
- **MAE 588 - Principles of Wind Turbines 3 credit(s)**
- **CEN 600 - Selected Topics 1-6 credit(s)** Biofuels
- MAE 600 - Fuel Cell Science & Technology

#### Electric Energy Track

- **ELE 514 - Electric Power Systems 3 credit(s)** or
- **ELE 530 - Electric Power Generation and Distribution 3 credit(s)**

## GRADUATE COURSE CATALOG

- **ELE 691 - Special Topics in Electrical Engineering 1-4 credit(s)** (Smart Grid) and
- ELE 691 - Special Topics in Electrical Engineering 1-4 credit(s) (Power Electronics)

### Program Customization

Select 2 course (6 credits) from any of the ESE Tracks listed above, plus 1 course (3 credits) from Business/Management, Social Sciences (Economics, Public Policy...), or Engineering/Computer Science (ECS) Technical Elective (subject to the 500-level 4-course limit).

### Additional Requirements

- **MAE 995 - Graduate Seminar 0 credit(s)**
- **MAE 994 - Capstone Project 0 credit(s)**  
- The student will review technical papers or reports in the literature related to the student's field of interest. The student will prepare an oral presentation summarizing the technical content of the documents reviewed, and present his/her findings before a faculty committee. A hard copy of the presentation, signed by the student advisor, must be submitted to the MAE Graduate Office before the oral presentation.

### Suggested Sequence of Courses

#### Fall, Year-1:

- **MAE 548 - Engineering Economics and Technology Valuation 3 credit(s)**
- **MAE 551 - Energy Conversion 3 credit(s)**
- MAE 600 or
- One Energy Systems Track Elective 9 credit(s)

#### Spring, Year-1:

ECS 650, plus two Energy Systems Track Electives. Student may take MAE 630 rather than MAE 629, instead of one of the two Track Electives [9 credits]

#### Summer, Year-1 (Optional):

A student may take a Management/Business course, Social Sciences course, or an ECS Technical Elective, if offered in the summer (possible 3 credits).

#### Year-2:

Remaining Electives and 0-credit Capstone Project on an energy-focused topic.

**Total Credits Required: 30 + a 0-credit capstone project on energy related topic.**

### Degree Awarded:

Master of Science in Energy Systems Engineering

### Transfer Credit:

None

### Part-time Study:

Yes

### Satisfactory Progress:

3.0 GPA or higher

## Engineering Management (Distance Format), MS

### Contact:

Prof. Fred Carranti, Program Director, 315-443-4346, carranti@syr.edu

### Faculty:

Prof. Fred Carranti, 315-443-4346 / carranti@syr.edu, Prof. Young Moon, 315-443-2649 / ybmoon@syr.edu, Prof. H. Ezzat Khalifa, 315-443-1286 / hekhalif@syr.edu  
Research Prof. Jorge L. Romeu, jlromeu@syr.edu  
Prof. Frances Gaither-Tucker, 315-443-3442 / fgtucker@syr.edu

Specific instructors will be identified when the online program course sequence is finalized.

See <http://lcs.syr.edu/our-departments/mechanical-and-aerospace-engineering/faculty/faculty/> for a list of Engineering department faculty and bios.

See <http://whitman.syr.edu/faculty-and-research/faculty/faculty-by-name.aspx> for a list of Management faculty bios.

### Description:

The program leading to the Master of Science degree in Engineering Management (MSEM) is interdisciplinary. It is administered by the Department of Mechanical and Aerospace Engineering, and the College of Engineering and Computer Science, with the cooperative support of the Martin J. Whitman School of Management.

The MSEM degree program is designed for practicing engineers and scientists who have or seek increased managerial and leadership responsibilities. The degree program provides a balanced field of knowledge in management theory and practices, statistics, quality control, finance, economics, information/data management, and legal issues. With proper

selection of courses, technical competence in a particular area can be strengthened as well.

### Accreditation:

Accredited by Middle States Association of Colleges and Schools

### Admission:

A bachelor of science degree in an engineering or pure science field (chemistry, physics, etc.) for admission.

Required GPA 3.0 or higher.

Average GPA of admitted students: 3.3

GRE required. Median GRE scores of admitted students: Q: 162, V: 148

TOEFL or IELTS scores are required for all international applicants. Applicants who are citizens from the following English speaking countries are not required to submit TOEFL testing scores: Australia, Bahamas, Barbados, Canada, Fiji, Ghana, Ireland, Jamaica, New Zealand, Trinidad & Tobago and the United Kingdom.

The institution code of 2823 should be used when requesting ETS (Educational Testing Services) send your scores electronically to Syracuse University. It is not necessary to request that scores be reported to more than one department.

### Financial Support:

Syracuse University has a variety of financial aid programs to support graduate study, including scholarships, assistantships, and fellowships. These programs are administered within each of the University's academic departments, so the fastest and easiest way to determine what aid you may be eligible for is to connect with specific school or college staff. Federal Unsubsidized Loans for masters, professional and doctoral students are available for up to \$20,500, (see eligibility requirements).

Federal financial aid, including loans, requires that you file the Free Application for Federal Student Aid (FAFSA). You can start the federal application process by completing all the items found on your MySlice Financial Aid To Do List, after you have been admitted.

### Facilities:

Classes are taught entirely online. Classrooms are equipped with at least two cameras, microphones (for the instructor and students) smart boards and/or tablet monitors and each class session will be webcast live.

Online students have the option to attend the live class session through an online web conferencing

## GRADUATE COURSE CATALOG

platform or view the recording after the class has ended. The web conferencing platform provides interface includes three pods: 1) Camera view of the instructor, 2) Display of the smart board or tablet monitor and 3) Chat tool through which students can pose questions to the instructor and other students. The audio feed will include the instructor and students in the classroom.

Software-based labs are completed using various applications that are downloaded or accessed remotely by the student. These labs are supported by live and recorded explanations and demonstrations by faculty and teaching assistants. In some classes, live support sessions are held online to assist students while they are completing the labs in their locations.

Labs that require tactile manipulation of instruments can be completed locally if the student has access to appropriate equipment (oscilloscope, function generator, multi-meter, etc.). Students record their experiment results and report back to the instructor. In some cases student may be asked to capture their work on video or still images.

### Learning Outcomes:

Employers seek engineering managers with skills in leadership, project management, product development, systems architecture, and process improvement. Job postings most commonly require candidates for engineering manager positions to have specialized skills in product development supported by nontechnical skills in leadership and project management.

The MSEM program prepares students for high-demand positions by including academic emphases in product development/design, systems architecture, process improvement, leadership, and management. Other high-demand skills include business development, mentoring, training, inspection, and procurement.

The engineering management program requires completion of core or foundation courses in business and engineering disciplines, plus a set of elective courses that focus on a specialization or technical area within engineering management.

The most desired non-technical skills in engineering management candidates confirms that employers seek candidates with developed skills in leadership, management, and budgeting. Other high-demand baseline skills include communication, organization, planning, training, and writing.

### Total Credits: 36

The degree requires a total of 36 semester course credits consisting of 24 core course credits and 12 technical elective credits. At least one half of the courses for the M.S. degree program must be

at 600 level or above.

### Degree:

Master of Science in Engineering Management

### Transfer Credit:

A maximum of 9 transfer credits for students admitted to the online programs. This is consistent with the College's policy on transfer credit for residential part-time graduate students. Transfer credits are certified after the students complete their course work requirements. Upon completion of course work, the College forwards the necessary paperwork to the Graduate School, which certifies any transfer credits (as well as the credits completed with us) prior to graduation.

### Part-time Study:

The online MSEM program can be completed part-time.

### Satisfactory Progress:

3.0 (B or better) average in all courses.

## Engineering Management, MS

The program leading to the Master of Science degree in Engineering Management (MSEM) is interdisciplinary. It is administered by the Department of Mechanical and Aerospace Engineering, and the College of Engineering and Computer Science, with the cooperative support of the Martin J. Whitman School of Management.

The MSEM degree program is designed for practicing engineers and scientists who have or seek increased managerial and leadership responsibilities. The degree program provides a balanced field of knowledge in management theory and practices, statistics, quality control, finance, economics, information/data management, and legal issues. With proper selection of courses, technical competence in a particular area can be strengthened as well. Course electives can be chosen to customize your program of study to meet specific career goals.

The degree requires a total of 36 semester course credits consisting of 24 core course credits and 12 technical elective credits. At least one half of the courses for the M.S. degree program must be at 600 level or above. The student's program is planned with a faculty advisor. Each program will be designed to meet the needs of the student, taking into consideration background and experience.

For more information, contact Frederick Carranti, Engineering Management Program, 263 Link Hall, Syracuse University, Syracuse NY 13244-1240;

315-443-4346 or 315-443-4367, carranti@syr.edu.

## Core Requirements

### Engineering Core

- **ECS 526 - Statistics for Engineers 3 credit(s)**
- **MAE 548 - Engineering Economics and Technology Valuation 3 credit(s)**
- **CSE 581 - Introduction to Database Management Systems 3 credit(s)**
- **MFE 634 - Productivity and Quality Engineering 3 credit(s)**

### Management Core

- **SCM 702 - Principles of Management Science 3 credit(s)** or
- **SCM 655 - Customer Relationship Management with Systems Applications and Products 3 credit(s)**
- **SCM 701 - Supply Chain and Logistics Management 3 credit(s)** or
- **SCM 721 - Supply Chain Systems 3 credit(s)**
- **MAR 757 - Managing Innovative Products and New Ventures 3 credit(s)** or
- **SCM 721 - Supply Chain Systems 3 credit(s)** or
- **SCM 656 - Project Management 3 credit(s)**
- Management Elective

### Technical Specialization Cluster

Four courses that form an integrated sequence will be selected by students, with advisors' approval, to enhance their area of technical specialization within the College of Engineering and Computer Science. Courses must be graduate-level from selections within the College of Engineering and Computer Science.

## Environmental Engineering Science, MS

### 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.



## GRADUATE COURSE CATALOG

edu, 315-443-2311.

# Environmental Engineering Science Faculty

David G. Chandler, Ruth Chen, Andria Costello Staniec, Cliff I. Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Laura J. Steinberg, Svetoslava Todorova

## Program Description

The graduate program in environmental engineering science at Syracuse has earned a reputation for superior quality. Degree recipients working in government, industry, and education have made important contributions to the profession. The environmental engineering science program provides coursework and research opportunities in environmental chemistry, water and wastewater treatment, applied microbiology, hydrology and water resources, sustainability, groundwater remediation, and green water infrastructure.

In addition to these focus areas, the students and faculty in environmental engineering science engage in interdisciplinary teaching and research, expanding the opportunities available to graduate students. The Department is home to the Center for Environmental Systems Engineering, which serves faculty in environmental, chemical, and mechanical engineering with a shared interest in environmental systems. We also engage in joint teaching with faculty in the School of Architecture and at SUNY-ESF.

## Admission Requirements

1. B.S. in engineering, mathematics or a natural science from an accredited institution. Candidates with undergraduate degrees in other fields must have their programs evaluated to determine if additional undergraduate courses are to be included in their program of study.
2. At least a 3.0 in a 4.0 rating system or equivalent in B.S. program coursework.
3. Satisfactory scores on all required graduate entrance examinations. A TOEFL score of 80 or higher is required for international students.
4. Departmental approval.

## Program Requirements

The M.S. in environmental engineering science

is intended for students with science-based undergraduate degrees in fields other than engineering. Students with undergraduate degrees in other professional and liberal arts disciplines may be required to complete undergraduate courses to prepare themselves for M.S. coursework. These courses will be specified in the student's letter of admission and may not carry credit toward the M.S. degree.

Programs are planned by the students in consultation with their advisors. At least half of the coursework must be at or above the 600 level. Students who have taken the lower level of a double-numbered course (e.g., a course offered at the 400 and 600 levels) may not take the higher level of the same course for credit.

M.S. candidates may transfer a maximum of 6 credits from other institutions. They are expected to complete their entire program within five calendar years of their admission.

## Thesis and non-thesis options are available

Students anticipating further graduate study at the doctoral level should pursue the thesis option.

## Requirements with Thesis (30 credits)

1. Completion of
  - **CIE 671 - Environmental Chemistry and Analysis 3 credit(s)**
  - **CIE 672 - Applied Env Microbiology 3 credit(s)**
2. Elective Coursework Satisfying Distributional Requirements  
Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile, available in the department office.
3. Master's Thesis for 6 Credits
  - **CIE 997 - Masters Thesis 0-6 credit(s)**
4. Defense of thesis
5. Participation in the Faculty/ Student Seminar Program
  - **CIE 660 - Seminar Civil Engineering 0 credit(s)**

## Requirements without Thesis (30 credits)

1. Completion of

- **CIE 671 - Environmental Chemistry and Analysis 3 credit(s)**
- **CIE 672 - Applied Env Microbiology 3 credit(s)**

## 2. Elective Coursework Satisfying Distributional Requirements

Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile, available in the department office.

## 3. Complete one of the following:

- CIE 600 - Environmental Assessment (3 credits)
- **CIE 996 - Master's Project 3 credit(s)**  
The Master's project must address a topic in environmental engineering or environmental science and be approved by the advisor and at least one additional reader.
- **CIE 995 - Master's Exit Paper 0 credit(s)** and
  - One additional elective course (3 credits)

## 4. Participation in the faculty/student seminar program

- **CIE 660 - Seminar Civil Engineering 0 credit(s)**

## Additional Information

The Master's project must address a topic in environmental engineering or environmental science and be approved by the advisor and at least one additional reader.

The exit paper must address a topic in environmental engineering or environmental science. The paper can be original research work or it can be a critical review of a published journal article. The paper has a minimum length of 2000 words and requires approval of the student's advisor.

## Environmental Engineering, MS

### 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

## GRADUATE COURSE CATALOG

### Engineering Faculty

David G. Chandler, Ruth Chen, Andria Costello Staniec, Cliff I. Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Laura J. Steinberg, Svetoslava Todorova

### Program Description

The graduate program in environmental engineering at Syracuse has earned a reputation for superior quality. Degree recipients working in government, industry, and education have made important contributions to the profession. The environmental engineering program provides coursework and research opportunities in environmental chemistry, water and wastewater treatment, applied microbiology, hydrology and water resources, sustainability, groundwater remediation, and green water infrastructure.

In addition to these focus areas, the students and faculty in environmental engineering engage in interdisciplinary teaching and research, expanding the opportunities available to graduate students. The Department is home to the Center for Environmental Systems Engineering, which serves faculty in environmental, chemical, and mechanical engineering with a shared interest in environmental systems. We also have a collaborative degree program with the Maxwell School of Citizenship and Public Affairs, and we engage in joint teaching with faculty in the Whitman School of Management, and at SUNY-ESF.

### Admission Requirements

1. B.S. in an engineering discipline or the equivalent from an accredited institution. Candidates with undergraduate degrees in another field must have their programs evaluated to determine if additional undergraduate courses are to be included in their program of study.
2. At least a 3.0 in a 4.0 rating system or equivalent in the B.S. program coursework.
3. Satisfactory scores on all required graduate entrance examinations. A TOEFL score of 80 or higher is required for international students.
4. Departmental approval.

### Program Requirements

The M.S. in environmental engineering is intended for students with undergraduate engineering degrees. Students without an undergraduate degree appropriate to their chosen M.S. program will be required to complete undergraduate courses to prepare themselves for M.S.

coursework. These courses will be specified in the student's letter of admission and may not carry credit toward the M.S. degree.

Programs are planned by the students in consultation with their advisors. At least half of the coursework must be at or above the 600 level. Students who have taken the lower level of a double-numbered course (e.g., a course offered at the 400 and 600 levels) may not take the higher level of the same course for credit.

M.S. candidates may transfer a maximum of 6 credits from other institutions. They are expected to complete their entire program within five calendar years of their admission.

Thesis and non-thesis options are available. Students anticipating further graduate study at the doctoral level should pursue the thesis option.

### Requirements with Thesis (30 credits)

#### 1. Completion of:

- **CIE 642 - Treatment Processes in Environmental Engineering 3-4 credit(s)**
- **CIE 671 - Environmental Chemistry and Analysis 3 credit(s)**
- **CIE 672 - Applied Env Microbiology 3 credit(s)**

#### 2. Elective Coursework Satisfying Distributional Requirements

Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile, available in the department office.

#### 3. Master's Thesis for 6 Credits

- **CIE 997 - Masters Thesis 0-6 credit(s)**

#### 4. Defense of thesis

#### 5. Participation in the Faculty/ Student Seminar Program

- **CIE 660 - Seminar Civil Engineering 0 credit(s)**

### Requirements without Thesis (30 credits)

#### 1. Completion of:

- **CIE 642 - Treatment Processes in Environmental Engineering 3-4 credit(s)**
- **CIE 671 - Environmental Chemistry and Analysis 3 credit(s)**

- **CIE 672 - Applied Env Microbiology 3 credit(s)**

### 2. Elective Coursework Satisfying Distributional Requirements

Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile, available in the department office.

### 3. Complete one of the following:

- **CIE 600 - Environmental Assessment (3 credits)**
- **CIE 996 - Master's Project 3 credit(s)**  
The Master's project must address a topic in environmental engineering or environmental science and be approved by the advisor and at least one additional reader.
- **CIE 995 - Master's Exit Paper 0 credit(s)** and  
one additional elective course (3 credits)

### 4. Participation in the Faculty/ Student Seminar Program

- **CIE 660 - Seminar Civil Engineering 0 credit(s)**

### Additional Information

The Master's project must address a topic in environmental engineering or environmental science and be approved by the advisor and at least one additional reader.

The exit paper must address a topic in environmental engineering or environmental science. The paper can be original research work or it can be a critical review of a published journal article. The paper has a minimum length of 2000 words and requires approval of the student's advisor.

### Mechanical and Aerospace Engineering, MS

#### Chair:

H. Ezzat Khalifa, 263 Link Hall, 315-443-2341; fax: 315-443-9099, gradinfo@syr.edu.

#### Faculty:

Jeongmin Ahn; Benjamin Akih-Kumgeh; Michelle Blum, Edward A. Bogucz Jr., Frederick Carranti, Thong Dang, John F. Dannenhoffer III, Barry D. Davidson, Mark N. Glauser, Melissa Green, H. Ezzat Khalifa, Benjamin Akih-Kumgeh, Alan J. Levy, Jacques Lewalle, Shalabh Maroo, Young Bai

## GRADUATE COURSE CATALOG

Moon, Vadrevu R. Murthy, Utpal Roy, Eric F. Spina, Jianshun S. Zhang

The Department of Mechanical and Aerospace Engineering offers graduate programs leading to the following degrees:

- Master of Science (M.S.) in Mechanical and Aerospace Engineering
- Doctor of Philosophy (Ph.D.) in Mechanical and Aerospace Engineering

It also participates in a college-wide master program leading to the degree:

- Master of Science (M.S.) in Engineering Management

## Admission Requirements

Admission to the Ph.D. program will be considered if three conditions are met. First, a sufficient level of academic and professional achievement must be documented by transcripts of the student's prior academic performance (a GPA of 3.33/4.0 or better is expected), GRE Quantitative score of 700+ (155+ on the new scale) and an acceptable GRE verbal score, and letters of recommendation and other supporting information. Second, the focusing of the student's efforts in one area of specialization should be clear from the student's transcript and statement of purpose. Third, a faculty adviser must be willing to supervise research in the student's area of specialization. Prior completion of a M.S. degree and/or an M.S. thesis may be required by individual faculty advisers.

## Application Procedure

Online application is the preferred method of applying to graduate programs at Syracuse University. Applications submitted online can be processed faster and more efficiently than those filed on paper. Access the online application.

You will receive an e-mail or postcard from Syracuse University when your application has been received and processed. Find out more information on the application process.

## Course Requirements

Graduate courses can be found in the Course Catalog, using the search engine.

M.S. students must complete 30 credits, including a capstone project (MAE 994: 0 credits; graded P/F), and must attend at least 3 semesters of the MAE graduate seminars (MAE 995: 0 credits; graded A/B/C/F, based on attendance)[1].

All students must complete three

### (3) core courses:

- **MAE 675 - Methods of Analysis in Mechanical Engineering 3 credit(s)**
- **MAE 643 - Fluid Dynamics 3 credit(s)**
- **MAE 635 - Advanced Mechanics of Materials 3 credit(s)**

### Additional Courses

Along with the aforementioned three core courses, all students must also complete four (4) more courses in the MAE department. Out of a required 30-credit M.S. degree, students should not take more than 9-credits at the 500-level. Furthermore, students intending to pursue a Ph.D. degree after the M.S. degree should plan to meet the Ph.D. admission requirements and Ph.D. qualifying examination requirements, and select M.S.-level courses accordingly.

### Graduation Requirements

The exit requirement for the M.S. degree includes MAE 994 - Capstone Project. The student will review technical papers or reports in the technical literature related to the student's field of interest. The student will prepare an oral presentation summarizing the technical content of the documents reviewed, and present his/her findings before a faculty committee. A hard copy of the presentation, signed by the student adviser, must be submitted to the MAE Graduate Office before the oral presentation. The committee will decide whether the student has passed or failed. The student should register for MAE 994 in his/her last semester for 0 credit hours.

### Note:

[1] Of the 48-credit course work, 30 credits should be equivalent to our M.S. degree requirements.

### Public Health, MPH

Michael Wasylenko, Ph.D., Senior Associate Dean, Maxwell School

200 Eggers Hall; 315-443-2253; mjwasyle@maxwell.syr.edu

[www.upstate.edu/cnymph](http://www.upstate.edu/cnymph)

### Program Requirements

The Master of Public Health (M.PH) 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, College of Engineering and Computer Science, the College of Law and the David B. Falk College of Sport and

Human Dynamics.

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.PH. 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.PH. must complete an application online at:

[http://www.upstate.edu/cnymph/academic/mp\\_h\\_degree/how\\_to\\_apply.php](http://www.upstate.edu/cnymph/academic/mp_h_degree/how_to_apply.php)

## Doctorate

## Bioengineering, PhD

## Department Chair:

Radhakrishna Sureshkumar  
329 Link Hall  
315-443-1931; fax: 315-443-9175

## Faculty

Rebecca Bader, Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Mandy B. Esch[JH1], Jeremy L. Gilbert, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, 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 Farrell, Eric Finkelstein, Shelley Stephens, Kent Ogden, David Quinn, Dana Radcliff, 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

## Graduate Bioengineering Program Director:

James Henderson, 318 Bowne Hall, 315-443-9739; jhhender@syr.edu

The Department of Biomedical and Chemical Engineering offers a comprehensive set of graduate programs in bioengineering and chemical engineering, including master's of science (MS) degrees and doctor of philosophy (PhD) degrees. Graduates of these programs work in the medical profession, the biomechanics and bioinstrumentation industries, the chemical engineering industry, the government, and in education.

The graduate program in bioengineering provides a wide range of opportunities for advanced study in this interdisciplinary field. This graduate program is linked with and focused on research programs in biomaterials and tissue engineering; biomechanics; orthopedic biomechanics; cardiac bioengineering; and neural engineering. Which degree to consider depends on one's career goals.

Major research laboratories include the Syracuse Biomaterials Institute, the Institute for Human Performance, and laboratories at nearby SUNY Upstate Medical University. Strong collaboration between Upstate Medical University and Syracuse University faculty, students, and staff provides opportunities for bioengineering research in clinical and basic science departments at Upstate, as well as in-depth study at one of the Syracuse University bioengineering research centers.

### Major Requirements

The Doctor of Philosophy (PhD) is a research-based degree program involving a high level of training in advanced bioengineering. A dissertation consisting of original research in a specialty area within the bioengineering program is required. A minimum of 42 credit hours is required for the completion of the PhD degree. No dissertation credits are required. A student entering the PhD program with an MS degree may apply up to 30 credits toward the required coursework, with the approval of the program director. A minimum of three years of graduate study is required and students typically complete all requirements within five years.

The requirements for the PhD degree in Bioengineering are:

- 42 total credits including:
- at least 36 credits of coursework;
- 15 credits of Bioengineering (BEN) courses,
- 3 credits of ethics, and
- 18 credits of technical electives, to be chosen in consultation with the dissertation advisor
- 6 credits of thesis (transferable from the MS) or additional technical electives.
- successful completion of qualifying and candidacy examinations;
- no more than 33.3% of coursework at 500-level;
- a minimum GPA of 3.0 for the set of courses included on the Program of Study;
- a minimum GPA of 2.8 for all credits earned;
- student must complete a dissertation and defend it in an oral examination, but no dissertation credits are required.

Required coursework can include Independent Study credits. Those entering the program post-BS degree can take up to 6 credits. Those entering the program, post-MS degree, can take up to 3 credits. The independent study cannot be supervised by the dissertation advisor. Note: A student must be enrolled for at least three academic years of full-time graduate level study beyond the baccalaureate degree.

#### PhD Exams and Timing:

All PhD students must pass a Qualifying Exam and a Dissertation Proposal Defense/Candidacy Examination. The timing of these exams differs depending upon what path a student takes through the various degree programs, as explained in this section.

#### Qualifying Examination:

Students who enter the PhD program with a BS are required to take the PhD Qualifying Examination within the 1st month of the 4th

semester of study. Students who enter the PhD program with an MS degree are required to take the Qualifying Examination within the 1st month of the beginning of the 3rd semester of study.

The Qualifying Examination is based on the student's critical analysis and study of a research topic that is outside of, but related to, the student's planned dissertation research area. The student is expected to critically analyze a published journal article, assigned by the faculty. The chair of the examination committee assigns the journal article, in consultation with the entire examination committee and the student's advisor. A written report of not more than 15 pages must be provided to the examination committee at least two weeks prior to the oral examination.

A committee consisting of at least three tenured or tenure-track BMCE faculty, appointed by the Bioengineering Graduate Program Director, evaluates the student's performance based on the technical content and quality of the written report and the students' presentation and ability to answer questions in the oral examination. The outcome of the oral examination will be communicated to the student by the committee at the time of the examination. After the examination has been completed, the student's eligibility to pursue the PhD is decided by the faculty of the Department on the basis of the student's performance on the examination, the student's academic record, and the student's progress in his/her research. The decision to continue to candidacy will be communicated to the student after the faculty vote.

#### Dissertation Proposal Defense/ Candidacy Examination:

All PhD students must defend their Dissertation Proposal within one calendar year of passing the Qualifying Examination. Several months before the Dissertation Proposal Defense/Candidacy Examination, the student should recruit faculty members to serve on a committee for that purpose. The committee membership should be essentially the same as the ultimate Oral Defense committee (see below), except that the outside Chair is not necessary for this defense/examination. The committee must have at least five members, including the dissertation advisor, at least three of which must be BMCE tenured or tenure-track faculty members. The student must obtain a Candidacy Examination Form from the Graduate Secretary and submit this form to the Department in order to schedule the examination. The form must include the title and abstract of the proposal, names of the committee members, and the advisor's signature. The Graduate Program Director's signature is also required, effectively assigning the committee. The Program Director also assigns a chair for the committee

## GRADUATE COURSE CATALOG

### Proposal:

Candidacy Examination Form: Student must obtain this form from the Graduate Secretary and submit it to the Secretary in order to schedule the examination. This must be done at least two weeks before the examination is to be held. This form must include the title and abstract of the proposal, names of the committee members, and the advisor's signature. The Graduate Program Director's signature is required, effectively assigning the committee. The Program Director also assigns a committee chair for the examination.

Proposal: A written proposal must be circulated to the committee no later than 2 weeks prior to the examination. The student should ask the committee members if a hard-copy or electronic copy is preferred. The proposal is limited to 15 pages, single-spaced, Times New Roman 12 pt. font, with at least 1 inch margins in all directions. Page limit includes all figures and tables. Additional pages are only allowed for references. No appendices may be included. Any proposal that does not meet these requirements will be returned for revision before it can be accepted for review. Students should discuss the content of the proposal with their advisors. As a general guideline, the proposal may include the following: Introduction, Hypothesis (or motivating need if it is not a hypothesis-driven project), Research Objectives, Work done to Date, and Research Plan.

The examination is open to all faculty members and students. After the presentation, the committee meets in executive session and votes. The student is informed of the result of this vote immediately afterward. The committee prepares a Candidacy Examination Outcome Form. This form includes the dates of the examination, the names of all committee members, the results of the committee votes, and whether or not the student passes the examination. It is signed by the examination committee chair. The student receives a copy of this form, with the original retained in the student's records. Upon successful completion of the Dissertation Proposal/Candidacy Examination, the student enters candidacy for the doctoral program.

### Oral Dissertation Defense:

The Oral Dissertation Defense and submission of the dissertation document to the Syracuse University Graduate School and Department are the final requirements of the PhD program. All students are required to submit two copies of the final version of the dissertation, with the signed title page, to the Department in fulfillment of the requirements for the PhD degree. Defenses must comply with the requirements of the Graduate School as described elsewhere in this Graduate Course Catalog. The Oral Defense Committee consists of six members, including a Chair (must

be a tenured or tenure-track faculty member from outside the Department, the advisor, and four other tenured or tenure-track faculty members, some of whom may be from outside the University, if appropriate. If a proposed committee member is not a full-time or adjunct faculty member at Syracuse University (i.e. from SUNY-ESF, Upstate Medical University, etc.), the student must petition the Department to allow this person to serve as a committee member. Students must submit a Request for Examination Form to the GEMC at least three full weeks prior to the oral defense. The dissertation document must be delivered to the Oral Defense Committee at least two weeks prior to the date of the oral defense.

### CURRENT RESEARCH AREAS - Bioengineering and Chemical Engineering

- Biomaterials & Tissue Engineering
- Catalysis & Reaction Engineering
- Complex Fluids, Soft Matter & Rheology
- Corrosion and Electrochemistry
- Drug Delivery
- Molecular Biotechnology
- Multiscale Modeling and Simulation
- Nanotechnology
- Sustainable Energy Production
- Systems Biology/Metabolic Engineering

### Chemical Engineering, PhD

### Department Chair:

Radhakrishna Sureshkumar, 329 Link Hall, 315-443-1931; fax: 443-9175

### Faculty

Rebecca Bader, Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Mandy B. Esch, Jeremy L. Gilbert, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, 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 Farrell, Eric Finkelstein, Shelley Stephens, Kent Ogden, David Quinn, Dana Radcliffe, Suresh Santanam, Frederick Werner

### Affiliate Faculty:

Joseph Chaiken, Andria Costello Staniec, 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

### Graduate Chemical Engineering Program Director:

Dacheng Ren, 357 Link Hall, 315-443-4409, dren@syr.edu

The Department of Biomedical and Chemical Engineering offers a comprehensive set of graduate programs in bioengineering and chemical engineering, including master's of science (MS) degrees and doctor of philosophy (PhD) degrees. Graduates of these programs work in the medical profession, the biomechanics and bioinstrumentation industries, the pharmaceutical industry, the chemical engineering industry, the government, and in education.

The graduate program in chemical engineering features a core of courses in chemical engineering, elective courses in areas of student interest, and an intense research or independent study experience with the student's faculty advisor. Elective courses may be concentrated in a large number of special areas, including bioengineering, environmental engineering, computer science, materials science, and manufacturing engineering. New initiatives are underway in the multidisciplinary area of environmental systems that should provide a wealth of opportunities to graduate students in chemical engineering.

### Ph.D. in Chemical Engineering

The Doctor of Philosophy (PhD) in Chemical Engineering is designed for students interested in research and teaching. The program of study consists of coursework, a qualifying examination, a candidacy examination, and preparation and defense of the dissertation. A student entering the PhD program with a MS degree may apply up to 30 credits toward the required coursework, with the approval of the program director. A minimum of three years of graduate study is required.

The requirements for the PhD degree in Chemical Engineering are:

- 42 total credits, including at least 24 credits in chemical engineering (CEN);

## GRADUATE COURSE CATALOG

- successful completion of qualifying and candidacy examinations;
- no more than 33.3% of coursework at 500-level;
- a minimum GPA of 3.0 for the set of courses included on the Program of Study and a 2.8 overall GPA;
- a minimum GPA of 2.8 for all credits earned;
- student must complete a dissertation and defend it in an oral examination; no dissertation credits are required.

Required coursework can include Independent Study credits. Those entering the program post-BS degree can take up to 6 credits. Those entering the program, post-MS degree, can take up to 3 credits. The independent study cannot be supervised by the dissertation advisor.

### Note:

A student must be enrolled for at least three academic years of full-time graduate level study beyond the baccalaureate degree.

### PhD Exams and Timing:

All PhD students must pass a Qualifying Exam and a Dissertation Proposal Defense/Candidacy Examination. The timing of these exams differs depending upon which path a student takes through the various degree programs, as explained in this section.

### Qualifying Examination:

Students who enter the PhD program with a BS degree are required to take the PhD Qualifying Examination within the 1st month of the 4th semester of study. Students who enter the PhD program with an MS degree are required to take the Qualifying Examination within the 1st month of the beginning of the 3rd semester of study.

The Qualifying Examination is based on the student's critical analysis and study of a research topic that is outside of, but related to, the student's planned dissertation research area. The student is expected to critically analyze a published journal article, assigned by the faculty. The chair of the examination committee assigns the journal article, in consultation with the entire examination committee and the student's advisor. A written report of no more than 15 pages must be provided to the examination committee at least two weeks prior to the oral examination. A committee consisting of at least three tenured or tenure-track BMCE faculty, appointed by the Chemical Engineering Graduate Program Director, evaluates the student's performance based on the technical content and quality of the written

report and the students' presentation and ability to answer questions in the oral examination. The outcome of the oral examination will be communicated to the student by the committee at the time of the examination. After the examination has been completed, the student's eligibility to pursue the PhD is decided by the faculty of the Department on the basis of the student's performance on the examination, the student's academic record, and the student's progress in his/her research. The decision to continue to candidacy will be communicated to the student after the faculty vote.

### Dissertation Proposal Defense/Candidacy Examination:

All PhD students must defend their Dissertation Proposal within one calendar year of passing the Qualifying Examination. Several months before the Dissertation Proposal Defense/Candidacy Examination, the student should recruit faculty members to serve on a committee for that purpose. The committee membership should be essentially the same as the ultimate Oral Defense committee (see below), except that the outside Chair is not necessary for this defense/examination. The committee must have at least five members, including the dissertation advisor, at least three of which must be BMCE tenured or tenure-track faculty members. The student must obtain a Candidacy Examination Form from the Graduate Secretary and submit this form to the Department in order to schedule the examination. The form must include the title and abstract of the proposal, names of the committee members, and the advisor's signature. The Graduate Program Director's signature is also required, effectively assigning the committee. The Program Director also assigns a chair for the committee.

### Candidacy Examination Form:

Student must obtain this form from the Graduate Secretary and submit it to the Secretary in order to schedule the examination. This must be done at least two weeks before the examination is to be held. This form must include the title and abstract of the proposal, names of the committee members, and the advisor's signature. The Graduate Program Director's signature is required, effectively assigning the committee. The Program Director also assigns a committee chair for the examination.

### Proposal:

A written proposal must be circulated to the committee no later than 2 weeks prior to the examination. The student should ask the committee members if a hard-copy or electronic copy is preferred. The proposal is limited to 15 pages, single-spaced, Times New Roman 12 pt. font, with at least 1 inch margins in all directions. Page limit includes all figures and tables. Additional pages are only allowed for references. No appendices may be included. Any proposal that does not meet these requirements will be returned for revision before it can be accepted for review. Students should discuss the content of the proposal with their advisors. As a general guideline, the proposal may include the following: Introduction, Hypothesis (or motivating need if it is not a hypothesis-driven project), Research Objectives, Work done to Date, and Research Plan.

The examination is open to all faculty members and students. After the presentation, the committee meets in executive session and votes. The student is informed of the result of this vote immediately afterward. The committee prepares a Candidacy Examination Outcome Form. This form includes the dates of the examination, the names of all committee members, the results of the committee votes, and whether or not the student passes the examination. It is signed by the examination committee chair. The student receives a copy of this form, with the original retained in the student's records. Upon successful completion of the Dissertation Proposal/Candidacy Examination, the student enters candidacy for the doctoral program.

### Oral Dissertation Defense:

The Oral Dissertation Defense and submission of the dissertation document to the Syracuse University Graduate School and Department are the final requirements of the PhD program. All students are required to submit a copy of the final version of the dissertation, with the signed title page, to the Department in fulfillment of the requirements for the PhD degree.

Defenses must comply with the requirements of the Graduate School as described elsewhere in this Graduate Course Catalog. The Oral Defense Committee consists of six members, including a Chair (must be a tenured or tenure-track faculty member from outside the Department, see website above), the advisor, and four other tenured or tenure-track faculty members, some of whom may be from outside the University, if appropriate. If a proposed committee member is not a full-time or adjunct faculty member at Syracuse University (i.e. from SUNY-ESF, Upstate Medical University, etc.), the student must petition the Department to allow this person to serve as a committee member.

## GRADUATE COURSE CATALOG

Students must submit a Request for Examination Form to the GEMC at least three full weeks prior to the oral defense. The dissertation document must be delivered to the Oral Defense Committee at least two weeks prior to the date of the oral defense.

### Current Research Areas

Bioengineering and Chemical Engineering

- Biomaterials & Tissue Engineering
- Complex Fluids, Soft Matter & Rheology
- Catalysis & Reaction Engineering
- Corrosion and Electrochemistry
- Drug Delivery
- Molecular Biotechnology
- Multiscale Modeling and Simulation
- Nanotechnology
- Sustainable Energy Production
- Systems Biology & Metabolic Engineering

### Civil Engineering, PhD

#### Department Chair/ Program Director:

Dr. Ossama "Sam" Salem, 151 Link Hall, omsalem@syr.edu, 315-443-2311

#### Civil Engineering Faculty

Riyad S. Aboutaha, Hossein Ataei, Shobha K. Bhatia, David G. Chandler, Ruth Chen, Andria Costello Staniec, Cliff I. Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Eric M. Lui, Dawit Negussey, Ossama "Sam" Salem, Baris Salman, Laura J. Steinberg, Svetoslava Todorova

#### Program Description

The graduate programs in civil engineering at Syracuse University have earned a reputation for superior quality and placing students at the center of attention. Degree recipients working in the public sector, private industry, and academic institutions have made important contributions to the profession. The civil engineering program provides coursework and research opportunities in structural engineering, geotechnical engineering, environmental engineering, infrastructure management, sustainable development, and construction engineering and management.

In addition to these core areas, the students and faculty in the civil engineering program

engage in interdisciplinary teaching and research, expanding the opportunities available to graduate students. The department is home to the Center for Environmental Systems Engineering, which serves faculty in environmental, chemical, and mechanical engineering with a shared interest in environmental systems. The Geofam Research Center is also administered in the department. We also have a collaborative degree program with the Maxwell School of Citizenship and Public Affairs, and we engage in joint teaching with faculty in the School of Architecture, the Whitman School of Management and at SUNY-ESF.

The Department offers the Ph.D. degree to students interested in research and teaching. The primary focus is on the development of skills needed to pursue original research in careers in academia, public sector, private industry, or research institutions. Students usually complete the degree within three to five years.

#### Admission Requirements

1. B.S. in Civil Engineering or other acceptable field from an accredited institution.
2. M.S. degree from an accredited institution.
3. B+ average in M.S. program coursework.
4. Satisfactory grades on all required graduate entrance examinations. A TOEFL score of 80 or higher is required for international students.
5. Departmental approval.
6. Demonstrated potential for excellent research work.

#### Advising

The candidate, with advice from the department chair and/or the program director, selects a dissertation advisor, whose consent must be obtained. The candidate and the advisor, together with consent from the department chair, select the members of the examination and dissertation committees. The candidate, in consultation with the advisor and dissertation committee, selects a program of coursework appropriate to the research and scholarly interests of the student.

#### Course Requirements

1. Ph.D. students are required to take a minimum of 48 credit hours of coursework beyond the B.S. level, or at least 18 credit hours of coursework beyond the M.S. level.
2. For students with an M.S. degree, at least two-thirds of the Ph.D. coursework must be at or above the 600 level, and no more than one-third of the coursework can be independent

study (CIE 690).

3. Ph.D. students are required to maintain an average GPA of B+ (3.333) in all Ph.D. coursework, and they are required to participate in the faculty/student seminar program (CIE 660).

#### Examinations

##### 1. Qualifying Examination:

The qualifying examination is to be conducted within the first year of enrollment in the Ph.D. program. The examination is composed of two parts: a written exam followed by an oral examination covering materials from at least three graduate-level classes that the student has taken at Syracuse University, as well as relevant materials from undergraduate coursework. The purpose of this examination is to assess the student's background knowledge in his/her primary subject area(s) and his/her preparedness for Ph.D. level research. The exam committee shall consist of at least three faculty members. The majority of the committee membership shall be faculty members from the Department of Civil and Environmental Engineering at Syracuse University. The result of this examination is a decision by the exam committee as to whether or not the student should continue in the Ph.D. program. For the candidate to pass this examination, a majority of the committee must vote favorably. If the student does not pass this examination, he/she can request to retake the examination one more time in the following semester. In the event that the student fails the examination for the second time, his/her Ph.D. program of study will be terminated.

##### 2. Candidacy Examination:

This examination is conducted in the semester after completion of the student's Ph.D. coursework, but no later than the fifth semester after admission into the Ph.D. program. Prior to this examination, the student shall prepare a detailed research proposal that includes, but is not limited to a review of relevant literature leading to a statement of objectives (including major questions or hypotheses to be addressed in the dissertation), a description of methods and approaches to be used, and a brief description of the significance of the proposed work. The proposal will often include preliminary results from the student's work to date.

The candidacy examination is an oral exam and is presided over by a dissertation committee composed of at least five members. The majority

## GRADUATE COURSE CATALOG

of the committee membership shall be faculty members from the Department of Civil and Environmental Engineering at Syracuse University. This committee will follow the student's work through his/her Ph.D. dissertation defense. Students are required to deliver their research proposals to all dissertation committee members and notify the department graduate secretary of the examination time and place at least two weeks prior to the exam. Any committee member who receives the proposal less than 14 calendar days prior to the examination may ask the department chair for a postponement of the examination.

The norm for the duration of the examination, which is open to all department faculty members, is two hours. The oral examination is initiated by a 30-40 minute summary of the dissertation research proposal and progress to date by the student. Following the presentation, the dissertation committee and department faculty ask the student questions concerning the research proposal. Following the examination, the dissertation committee confers to determine if the student is a suitable Ph.D. candidate based on his/her performance on the candidacy examination, as well as to determine if the student should be required to take additional coursework beyond the minimum required for the degree. If the student successfully completes the candidacy examination by receiving an affirmative vote from the majority of the committee, the advisor notifies the student and the graduate school and the student is considered a Ph.D. candidate. If the student does not successfully complete the candidacy examination, the committee determines whether the student will be permitted to retake the examination after a minimum period of six months or whether the student's Ph.D. program should be terminated.

### 3. Dissertation Defense:

The final phase of the Ph.D. program is the dissertation defense. The doctoral dissertation is a summary of all phases of the student's research endeavor. The final stage in the preparation of this dissertation is its distribution to all members of the dissertation committee. The student should not distribute the final draft of the dissertation until the advisor is satisfied with it. Readers should be presented with a polished draft that has been proofread, paginated, and contains professional quality tables and figures with captions. All members of the dissertation committee must be given at least two weeks to review the dissertation before the defense. Any committee member who receives the thesis less than 14 calendar days prior to the defense may ask the Exam Committee chair/Graduate School

for a postponement of the defense.

When the Ph.D. candidate has completed a dissertation that has been approved by his/her advisor, a copy is to be provided to each of the dissertation committee members and a defense date is scheduled. The dissertation defense is an open examination and all members of the University community are invited. This is accomplished by announcements to students and faculty in the department at least one week in advance of the defense, as well as a notice in The Syracuse Record.

The dissertation defense is to be conducted in accordance with University Policies and Procedures for Dissertation and Oral Examination. The norm for the duration of the dissertation defense is two hours. The dissertation defense is usually initiated with a 30-40 minute summary of the research conducted. This is followed by open questioning from the audience. When this is completed, the candidate is questioned by the dissertation committee members. For the candidate to pass the dissertation defense, a majority vote on the quality and originality of the research, the quality of the dissertation, and the performance of the candidate at the examination is required.

### Department of Civil and Environmental Engineering Current Research Areas

- Accelerated and Fast Track Construction Lean and Green Construction
- Anchor foundations
- Application of geosynthetics in dewatering and containment
- Application of geosynthetics in dewatering and containment
- Applications of molecular biology to environmental engineering
- Applied environmental microbiology
- Applied surface chemistry
- Aquatic chemistry
- Biogeochemistry
- Bioremediation
- Bridge retrofit with CFRP composites
- Changes in microbial communities in response to anthropogenic disturbance
- Composite and hybrid systems
- Construction Project Management
- Construction Safety and Health
- Decentralized treatment processes
- Earthquake engineering

- Economy of preventive maintenance of highway bridges
- Environmental geostatistics
- Experimental investigation of structural concrete and steel systems
- Fiber optic sensors
- FRP reinforced concrete structural systems
- Geotechnical engineering
- Global biogeochemical cycles
- Green materials for contaminants removal and containment
- In situ testing
- Infrastructure Asset Management
- Investigation of structural failures
- Microbial fuel cell technologies
- Microstructure of soil and geosynthetics
- Microstructure of soil and geosynthetics
- Natural and polymeric fibers in soil erosion mitigation
- Natural and polymeric fibers in soil erosion mitigation
- Natural organic matter
- Nonlinear structural theories
- Numerical modeling
- Potable water supply
- Properties and applications of geofoams
- Renewable hydrogen production
- Resource recovery from wastewater
- Slurry wall containment systems and movement of organics in soil/rock systems
- Slurry wall containment systems and movement of organics in soil/rock systems
- Soil chemistry
- Solid-liquid separation processes
- Steel structures
- Structural dynamics
- Structural rehabilitation of civil infrastructure
- Structural stability
- Sustainable Infrastructure Systems
- Transportation Engineering
- Water quality modeling
- Women in science and engineering

### Computer & Information Science & Engineering, Ph.D.



# GRADUATE COURSE CATALOG

## Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharnjad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoong Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

## Doctor of Philosophy Programs

The Department of Electrical Engineering and Computer Science (EECS) in the College of Engineering and Computer Science at Syracuse University offers Ph.D. degrees in computer and information science and engineering (CISE) and in electrical and computer engineering (ECE).

The objective of these programs is to graduate doctoral students who:

1. Are scholars in their field of research as evidenced by:
  - their ability to do independent research by synthesizing original ideas that are evaluated to be non-trivial contributions by other researchers,
  - the mastery of their discipline by being able to recall, comprehend, apply, analyze, synthesize, and evaluate ideas with intellectual rigor using the major concepts and results of their discipline.
2. Can communicate their ideas effectively as evidenced by:
  - their ability to write papers, dissertations, and proposals that are judged to be well-written, well-presented, and well-argued,
  - their ability to give technical presentations that are judged to be clear, concise, and informative.

The requirements for the Ph.D. programs combine coursework with research work emphasizing mastery of a field of knowledge, familiarity with allied areas, facility in the use of research techniques, responsibility for the advancement of knowledge, and effective communication of ideas. These are tested primarily by comprehensive examinations and the defense of the dissertation rather than by a summation of courses, grades, and credits.

Student research work is led by internationally

renowned researchers in their areas of expertise. One of the strengths of our doctoral programs lies in the ability of the faculty to participate in many research areas of an interdisciplinary nature. Even though EECS offers Ph.D. programs in the two areas indicated above, the research interests of many of our faculty connect these areas.

The CISE doctoral program targets those students with research interests in topics generally associated with computer and information science and with software aspects of the computer-engineering field. The ECE doctoral program targets students with research interests in topics encountered in the electrical-engineering field and in the hardware area of computer engineering.

Students in these programs are subject to all regulations of the Graduate School.

The basic structure of the requirements for a Ph.D. degree is the same for both degrees. What differentiates the programs are the details, namely:

1. The list of topics in which students must demonstrate competencies by completing coursework.
2. The topics covered in the written Qualifying Examination Part I.

## Ph.D. Degree Programs

PH.D. DEGREE PROGRAMS IN COMPUTER AND INFORMATION SCIENCE AND ENGINEERING (CISE) AND ELECTRICAL AND COMPUTER ENGINEERING (ECE)

## Admission Requirements

Admission to the Ph.D. programs is highly selective. Only those individuals with superior qualifications and a B.S. and/or M.S. from an accredited institution in computer engineering, computer and information science, electrical engineering, or a related field are invited to apply. Accepted students must start their doctoral program of study in the fall semester. No students will be accepted to start the program in the spring semester. Applicants must provide scores on the general test of the Graduate Record Examination (GRE).

In addition, applicants whose native language is not English must provide scores on the Test of English as a Foreign Language (TOEFL).

Each program has its own admission committee that evaluates the overall academic record of an applicant. Each of these committees uses the following general guidelines during the evaluation process:

- GRE Verbal score of 153 or better (using New

GRE Score System);

- GRE Quantitative score of 155 or better (using New GRE Score System);
- GRE Analytical Writing score of 4.5 or better (the GRE Analytical multiple choice is not acceptable);
- For international students: TOEFL computer-based score of 250 (Internet-based score 100; paper-based score 600) or better;
- GPA of 3.5/4.0 or better.

Exceptional candidates who may not satisfy the above general guidelines but excel in other criteria (such as publications in technical conferences and/or journals, scholastic achievement) are encouraged to apply.

Students may apply online by completing the application given at the following web site: [apply.embarc.com/grad/syracuse/37/](http://apply.embarc.com/grad/syracuse/37/).

## Guidance Committee

A two-person faculty Guidance Committee assists each newly admitted student with program planning. When identified, the dissertation advisor will serve as the principal source of academic advice and counsel.

## Residence Requirements

Students must also satisfy the residency requirements of the Graduate School. These are given in Section 46.0 (Doctoral Degrees) of the Academic Rules and Regulations of Syracuse University at the following web site: [syracuse.edu/policies/currentrr.pdf](http://syracuse.edu/policies/currentrr.pdf).

## Academic Requirements

Degree programs are tailored to meet the needs of the individual, subject to certain general departmental requirements. The Ph.D. program consists of coursework, examinations, presentations, and a dissertation.

A minimum of 52 credits of coursework is required by the CISE and the ECE doctoral programs, beyond those taken for the bachelor's degree.

## Coursework

Each student must complete at least 48 credits of technical graduate courses at the 600-level or above (courses for graduate students only). Of these 48 credits, 30 credits (number of credits of coursework required for an M.S. degree EECS) provide broad knowledge in the student's field

## GRADUATE COURSE CATALOG

of doctoral work and 18 credits provide depth in the student's research area. Therefore, these 18 credits are to be taken from specialized courses at the 700-level or above (graduate courses that have a graduate course as a prerequisite) that support the student's area of research. Independent study courses cannot be used to satisfy the 700-level requirement. Programs of study for CISE Ph.D. students must include CIS 623, CIS 655, CIS 657, and CIS 675.

In addition, each student must complete at least 4 credits of professional development courses. This requirement is fulfilled by taking one 3-credit course in presentational speaking and one 1-credit course in fundamentals of research. The course in presentational speaking, taught by the Department of Communication and Rhetorical Studies, will equip our doctoral students with the ability to deliver effective technical presentations. The course in fundamentals of research will provide doctoral students with fundamental skills needed in their pursuit of a doctoral degree within the context of a small research project.

The following is the summary breakdown of credit requirements:

### Credits

#### Technical Courses 48

(30 credits to provide broad knowledge in the student's field of doctoral work; 18 credits to provide depth in the student's research area)

#### Non-Technical Courses 4

(3 credits of presentational speaking to equip doctoral students with the ability to deliver effective technical presentations; 1 credit of fundamentals of research to provide students with fundamental skills needed in their pursuit of a doctoral degree within the context of a small research project.)

### Total 52

## Doctoral Program Information

To ensure that all doctoral students have a broad knowledge in their field of doctoral work, they must demonstrate competence by completing coursework in at least three areas from the list associated with the doctoral program the student is pursuing. These two lists are maintained by the program committees of the department. The topics in these lists may vary to reflect the change of their importance in providing doctoral students with a broad education. For example, currently:

- A student in the CISE doctoral program must

demonstrate competence by completing coursework in at least three of the following areas:

- Algorithms
- Architecture
- Artificial Intelligence
- Hardware Systems
- Logic and Theory of Computation
- Operating Systems
- Programming Languages and Compilers
- Software Systems
- A student in the ECE doctoral program must demonstrate competence by completing coursework in at least three of the following areas:
  - Algorithms
  - Circuits - Digital, Analog and RF
  - Communications
  - Computer Architecture and Hardware Design
  - Devices - Electronic, Microwave and Optical
  - Electromagnetics and Power
  - Engineering Mathematics
  - Signal Processing and Control
  - Software Systems

## Examinations and Colloquium Presentations

Students must pass the qualifying examination associated with the doctoral program they are pursuing, proposal defense, and dissertation defense. In addition, students must present their research results to the faculty at the department Colloquium Series.

## Qualifying Examination (QE)

The QE is composed of two parts: Qualifying Examination Part 1 (QE1) which consists of the written eligibility examination, and Qualifying Examination Part 2 (QE2) which consists of the research examination. To pass the QE, doctoral students must pass both of these examinations.

The objective of the Q E1: (Written Eligibility Examination) is to ensure that students have mastered the fundamentals pertinent to their doctoral program of study and possess the mathematical maturity necessary to undertake

doctoral research. The QE1 must be taken by all students in a doctoral program in the spring semester of their first year of matriculation into the program regardless of whether they have entered the program with a bachelor's or master's degree. In the beginning of each fall semester, the department provides students with the scopes of these examinations. The scopes may vary to reflect the current importance of the topics covered by them.

The objective of the Q E2: (Research Examination) is to ascertain that the doctoral student is ready to engage in research. It will include the student's presentation of results of a mini research project, chosen by the student after passing the QE1. It must be taken by all students in a doctoral program in the spring semester of their second year of matriculation into the program.

## Candidacy

Doctoral students are admitted to candidacy after passing the QE. Therefore, they are considered Ph.D. candidates only after passing this examination.

## Research Committee

After passing the QE, the student must identify a faculty member of EECS who will supervise his/her dissertation. The dissertation advisor will guide the student in forming a research committee consisting of two additional faculty members. If any one of these additional faculty members is not from the EECS department, then the membership of the committee must be approved by the chair of EECS. The dissertation advisor will be the chair of this three-member committee. This committee will guide the student during the dissertation work.

## Proposal Defense (PD)

The objective of this oral exam is for the student to demonstrate suitable selection of a dissertation topic and adequate preparation for said research. This exam must be taken within two years of passing the QE.

After passing the PD, the student prepares a dissertation, normally carried out under the supervision of the dissertation advisor. While preparing the dissertation, the student gives a presentation(s) of his/her research work at the department Colloquium Series.

## Colloquium Presentation

The objective of the student's presentation(s)

# GRADUATE COURSE CATALOG

at the Department Colloquium Series is to communicate the student's research results to the faculty and students of the department. The student must give at least one talk at this colloquium based on his/her dissertation prior to the final dissertation defense.

The student may request a final oral examination only upon completion of the dissertation and after its approval by the student's research committee. The research committee is responsible for assessing that the doctoral candidate is a scholar in his/her field of research and can communicate ideas effectively. The assessment demonstrating that the doctoral student has achieved scholarly status must include an outside evaluation by a scholar in the field of the student's dissertation work. This outside evaluation can be in the form of an outside reader who is not a member of the student's research committee, publication in technical journals, or publication in proceedings of refereed conferences.

## Dissertation Defense

The objective of this oral exam is to give final certification of doctoral dissertations. It consists of a capstone seminar to communicate main contributions in the doctoral dissertation, open to general audience, followed by an in-depth technical assessment of student's work by the examining committee. The examining committee will assess mainly the student's dissertation work but may also assess the student's mastery of related topics and previous work in the field.

## Financial Support

Financial support for Ph.D. students is available in many forms. Such support normally entails a stipend in addition to a scholarship. Graduate teaching assistants, graduate research assistants, fellows, and other students supported financially by the University must exhibit satisfactory progress toward the chosen degree to be reappointed each year. Satisfactory progress is determined by EECS faculty during the yearly review of all doctoral students.

## Time Limit

As required by the Graduate School, all requirements for the Ph.D. degree must be met within five years of the satisfactory completion of the QE.

## Master of Philosophy

The master of philosophy is an intermediate degree between the academic master's degree and the doctor of philosophy. In order for the master of philosophy degree to be awarded, a student must complete all the requirements for

the doctoral degree except the dissertation.

## Current Research Areas

**Artificial Intelligence** Image segmentation and restoration; pattern and shape recognition; computer vision; expert systems; intelligent systems and other applications of fuzzy logic, neural networks and evolutionary algorithms; learning classifier systems; social network analysis; multi-agent systems.

**Communication and Information Theory** Cognitive radio systems; Shannon theory for multiuser systems; information theoretical security; joint source-channel coding; cooperative communications; energy efficient communications; communication under channel uncertainty and queuing constraints; multiuser MIMO communication systems; MIMO communication with airborne platforms.

**Communications and Signal Processing** Detection and estimation theory; distributed signal processing and data fusion; adaptive signal processing algorithms and architectures; radar signal processing; knowledge-based signal processing; image processing; digital communications; information theory and processing of auditory signals by the nervous system; coding; parallel algorithms for signal processing; complexity of DSP algorithms; communication networks; photonic communications; weak signal detection in non-Gaussian environments; analysis of bistatic radars.

**Complex Systems** Evolutionary algorithms, neural networks, self-organizing systems, dynamical systems, distributed multi-agent systems.

**Computer System Security** Applying security principles to secure computer, network, and information systems; authentication; access control; data protection; privacy; securing web browsers, web servers, and web applications; Smartphone and mobile system security; malware detection and analysis; applying executable code analysis and virtualization techniques to improve computer security; digital forensic analysis; protocol steganography; detecting and thwarting code injection attacks; developing effective methods and materials to improve security education.

**Distributed Information Systems** Multimedia systems; object-oriented databases; multimedia transport protocols; high bandwidth networks; distributed conferencing; visualization and virtual reality; multimedia storage systems, including optical systems; video on demand; distributed multimedia applications; web technology.

**Dynamical Systems and Control** Control of dynamical systems; Optimal control; Distributed

control of large scale interconnected systems subject to communication and/or structural constraints; Synchronization and coordination of multi-agent networks; Computational tools for optimal control of distributed systems; Analysis and control of spatially-periodic, time-periodic, and sampled-data systems.

**Electromagnetic Fields and Antennas** Electromagnetic aperture problems; application of matrix methods to radiation and scattering systems; iterative methods for large electromagnetic problems; analysis of printed circuits; adaptive and smart antennas; antenna arrays; antenna array synthesis; development of high-pulsed power systems; analysis of small radomes; time-domain radar; microwave remote sensing of earth terrain; wave propagation in random media; scattering from random surfaces; scattering from composite dielectric and conducting targets; waves in anisotropic media; radar clutter modeling; millimeter and microwave integrated circuits; numerical solution of electromagnetic field problems.

**High Confidence Design** Formal methods; formal specification, synthesis and verification of software and hardware; computer security; network security.

**Information Fusion and Wireless Sensor Networks** Architectures and algorithms for information fusion; wireless sensor network design; detection, estimation, localization, tracking and classification in wireless sensor networks; security and assurance.

**Logic in Computer Science** Mathematical foundations of hybrid systems and continuous computation, logics for hybrid and continuous computation, quantum computation.

**Low-Power System/Circuit Design** CPU load/tasking scheduling; job scheduling and task migration for multi-node data centers; job scheduling for temperature control; audio/video circuit board design; innovative signal processing algorithms; redundant logic operation elimination for datapath modules; gate sizing and buffer insertion; bias voltage control at transistor level.

**Microelectronics** Solid state sensors; nonlinear dielectric and optical materials; thin film growth and processing, high speed electronic devices and circuits; and power electronics.

**Neural Networks** New learning algorithms, adaptive connection systems, self-organizing networks, pattern recognizers, spatio-temporal networks, modular networks, hierarchical networks, evolutionary algorithms, fault-tolerant neural networks, models of biological systems, classification and clustering algorithms.

**Optics and Wave Phenomena** Wave propagation and applications, linear and nonlinear, dispersive and nondispersive;

## GRADUATE COURSE CATALOG

acousto-optic interactions; optical information processing and optical bistability; optical wave mixing; holography; optical interconnects; optical computing algorithms and architectures; pipelined optical binary computing; wave propagation through random media; waves and fields in anisotropic media; nonlinear echoes.

**Photonics and Optical Engineering** Optical information processing; interconnection and communication networks; fiber optics, fiber light amplifiers, and lasers; photorefractive and bio-optical materials and their applications in wave-mixing and dynamic holography; micro-optic fabrication; optical computing; electro-optics; optical memory; optical wave propagation and diffractions.

**Power Engineering and Smart Grid Application,** control, and use of distributed energy resources and storage devices; economic, ancillary, and emergency demand response and scheduling optimization under grid and customer-defined constraints; advanced metering infrastructure; communications, information management, and automated power system control technologies.

**Programming Languages** Denotational semantics, logics of programs, formal methods, semantic models of parallel programs, fair behavior and liveness properties of parallel programs, applications of semantic models to program design, parallel program correctness.

**RF and Wireless Engineering** Analysis and design of RF and Wireless and satellite communication circuits and systems.

**Software Engineering** Software models; metric and formal methods; fault-tolerant software and software reliability; software reusability; object-oriented software engineering methods and tools; techniques for software engineering data analysis; distributed and parallel software development; trusted systems.

**Statistical Signal Processing** Detection and estimation theory; decentralized signal processing and data fusion; adaptive signal processing algorithms and architectures; compressive sensing; stochastic resonance and noise enhanced signal processing; remote sensing and image processing; radar signal processing, computer vision and pattern recognition; signal processing for security and information assurance; machine learning.

**Systems Assurance** Systems assurance focuses on the design, development, and deployment of information systems with a particular emphasis on networked systems, information assurance, information security, information integrity, and privacy. Our research focuses on the ways information systems are designed to work reliably, safely, correctly, and securely. These methods also aim to reduce the complexity of

systems assurance. Our research also focuses on developing algorithms and protocols to achieve security and privacy in network and distributed computing.

**Theory of Computation** Computational complexity of higher-order functionals, complexity of “lazy” computation, biological models of computation, and computational learning theory.

**VLSI Computer-aided design** and architectures design, verification and testing of VLSI systems aided by EDA tools (Cadence, Synopsys, etc.); design of digital, analog, and mixed-signal systems; functional verification; testing; computer-aided design techniques for routing, simulation, verification, and synthesis; silicon compilation; formal verification; high-level synthesis; system integration; applications of declarative programming languages; algorithms and architectures for parallel and distributed systems.

**Wireless Networks** Cross-layer design and resource allocation; mobile phone sensing; mobile and distributed computing; wireless smart camera networks; energy efficient wireless networks; market based designs; game theoretic formulations for adversarial environments.

### Research Laboratories

**Communication Laboratory** This laboratory is dedicated to communication and signal processing research. On-going research projects include information theoretic study of multi-user communications; decentralized statistical signal processing for information fusion; MIMO communications for airborne platforms; and various enabling technologies for cognitive wireless networks.

**DOPL Laboratory** is the home for doctoral students working on management and restructuring of large software systems, high performance computing using GPUs and computer clusters, and tools for visualizing and understanding complex software systems.

**Distributed Multiagent Laboratory (DMA Lab)** The DMA lab provides a unique environment for exploring basic research and applications on distributed multiagent systems. Areas of research include software agents, real-time intelligent distributed systems, evolutionary and Bayesian game theory, applications of artificial intelligence techniques on computer systems problems, and Internet algorithms and applications.

**Fiber Fabrication Research Laboratory** This laboratory has a facility for fabricating specialty optical fibers; vacuum systems, including a special ultra-high vacuum system for evacuating ampoules; various furnaces, including a high-pressure furnace for preform fabrication; a fiber-pulling tower capable of drawing about 3 km of fiber from a 20 cm preform; and extensive fiber

analysis equipment, including a special fiber microscope and an automatic optical spectrum analyzer. A process has been developed here for fabricating fibers with very thin layers of optically active material at the core cladding boundary. The optically active materials are semiconductors, metals, lithium niobate, and magnetic materials. These fiber devices are typically 3 to 20 mm long and have a large variety of applications in communication, computer memories, and sensors. Examples of these applications are fiber light amplifiers, sonar detectors, and true image light amplifiers in full color and 3-D, etc. Both graduate and undergraduate students participate in this research.

**Microelectronics Laboratory** This laboratory has processing and measuring instrumentations for the fabrication and characterization of integrated devices and circuits. The laboratory is equipped with thin film deposition systems, including ion beam assisted sputtering system, thermal evaporation system.

**Photolithography,** high temperature diffusion furnace and chemical processing set ups allow students to build semiconductor devices, thin film sensors, and integrated circuits. Measurement equipments include four-point probe system for measuring capacitance and dielectric loss as a function of frequency and temperature, hall measurement, etc. This laboratory facility is used for both research and teaching. Ongoing research projects involve development of metal-oxide gas sensors, conductive transparent film for solar applications.

**Photonics Laboratory** The Photonics Laboratory has five fully equipped optics rooms. Each has a vibration isolated optical table and various kinds of optical devices and elements. It has a one-dimensional detector array, a digital rail, a CCD camera and image processing system, a digital scope, and various photo-detectors and laboratory accessories. In addition, we have a 5-W Argon Ion laser, a 50 mW He-Ne laser, and a number of semiconductor lasers. Research efforts include information processing for two-dimensional and three-dimensional data related to military as well as commercial applications, micro-fabrication of electro-optical diffractive optical elements, photonic switching as related to computer and communication networks, real-time holography for free-space beam steering and optical intersections, and three-dimensional optical memory and molecular electronics for the future generation of high-density and large-capacity digital storage devices.

**Power Engineering and Smart Grid Laboratory** has three specialized units. First unit is for Power Electronics experiments, equipped with two switching power pole boards for DC-DC power conversion with capabilities of analog and digital output control and for Electromechanical Devices,

## GRADUATE COURSE CATALOG

equipped with two switching power boards for DC-DC and DC-AC power conversion with capabilities of digital output control along with a set of controlled electromechanical DC and AC devices. Second unit is Smart grid lab, which includes a micro-grid with renewable energy (such as wind, solar) conversion and control, energy storage and control, a double transmission line, a distribution network, 7 feeders and smart meters, a static and a dynamic load, and a power factor correction device. Third unit is Smart home lab, which includes smart home appliances, smart meters with communication node and data processing interfaces. Primary goals are to provide hands-on experience to students to understand power system operations, to collect and analyze data using the model of a real micro-grid power network, to test different vendors' equipment, to investigate and compare new system components for measurement and control, and to develop new solutions for local and remote control as well as investigate cyber security.

### RF, Wireless, and Signal Processing

Laboratory Fabrication facilities exist here to make printed circuits with accuracy up to 70 microns, both for VLSI and microwave CAD. Equipment for characterizing devices directly in both time and frequency domains is also available. The laboratory is equipped with a Waveform Processing System capable of analyzing devices up to 18 gigahertz. In addition, a Vector Network analyzer operating from 45 megahertz to 26.5 gigahertz can not only characterize noise figures of devices, but can also measure various network parameters of printed circuits, devices, and antennas. This equipment is computer controlled for higher accuracy and ease of measurement. In addition, a high-power Quantronix laser system provides the capability of performing research in impulse radar technology. With the help of laser-activated photo-conductive switches it is possible to generate kilovolt amplitude electrical pulses of 300 picoseconds duration. Several high-end workstations provide the capability of solving challenging problems in electromagnetics and signal processing. By adding DSP boards to Pentium processors it is also possible to carry out real-time adaptive signal processing.

**Sensor Fusion Laboratory** The primary focus of this laboratory is research related to statistical signal processing for multi-sensor systems and cognitive wireless networks. Current research projects involve signal processing for distributed detection and estimation, fusion algorithms for multimodal sensors, cognitive radio networks, security and assurance of cognitive wireless networks and sensor networks, compressive sensing, theory and application of stochastic resonance and wireless sensor networks applications. This laboratory provides state-of-the-art computing facilities.

VLSI Systems Design and CAD Laboratory aims to develop design methodologies and techniques that empower designers to design, test, verify, and build systems on a chip. Current research focus is around high-level synthesis for digital and mixed-signal systems, reconfigurable computing, and CAD for physical design.

### Web and Smartphone Security Lab Conducts research on web and Smartphone security.

Current research projects involve access control systems for web browsers, web servers, and web applications, authentication, access control, and data protection for Smartphones, and security enhancement for the Android operating system and applications. The lab is also the owner of the SEED project, which produces hands-on lab exercises for computer security education; these exercises are being used by over a hundred universities worldwide. The lab is equipped with Smartphone devices and development technologies, as well as powerful servers for system development.

## Electrical & Computer Engineering, PhD

### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

### Doctor of Philosophy Programs

The Department of Electrical Engineering and Computer Science (EECS) in the College of Engineering and Computer Science at Syracuse University offers Ph.D. degrees in computer and information science and engineering (CISE) and in electrical and computer engineering (ECE).

The objective of these programs is to graduate doctoral students who:

1. Are scholars in their field of research as evidenced by:
  - their ability to do independent research by synthesizing original ideas that are evaluated to be non-trivial contributions by other

researchers,

- the mastery of their discipline by being able to recall, comprehend, apply, analyze, synthesize, and evaluate ideas with intellectual rigor using the major concepts and results of their discipline.
2. Can communicate their ideas effectively as evidenced by:
    - their ability to write papers, dissertations, and proposals that are judged to be well-written, well-presented, and well-argued,
    - their ability to give technical presentations that are judged to be clear, concise, and informative.

The requirements for the Ph.D. programs combine coursework with research work emphasizing mastery of a field of knowledge, familiarity with allied areas, facility in the use of research techniques, responsibility for the advancement of knowledge, and effective communication of ideas. These are tested primarily by comprehensive examinations and the defense of the dissertation rather than by a summation of courses, grades, and credits.

Student research work is led by internationally renowned researchers in their areas of expertise. One of the strengths of our doctoral programs lies in the ability of the faculty to participate in many research areas of an interdisciplinary nature. Even though EECS offers Ph.D. programs in the two areas indicated above, the research interests of many of our faculty connect these areas.

The CISE doctoral program targets those students with research interests in topics generally associated with computer and information science and with software aspects of the computer-engineering field. The ECE doctoral program targets students with research interests in topics encountered in the electrical-engineering field and in the hardware area of computer engineering.

Students in these programs are subject to all regulations of the Graduate School.

The basic structure of the requirements for a Ph.D. degree is the same for both degrees. What differentiates the programs are the details, namely:

1. The list of topics in which students must demonstrate competencies by completing coursework.
2. The topics covered in the written Qualifying Examination Part I.

### Ph.D. Degree Programs

Ph.D. Degree Programs in Computer and Information Science and Engineering (CISE) and Electrical and Computer Engineering (ECE)

## Admission Requirements

Admission to the Ph.D. programs is highly selective. Only those individuals with superior qualifications and a B.S. and/or M.S. from an accredited institution in computer engineering, computer and information science, electrical engineering, or a related field are invited to apply. Accepted students must start their doctoral program of study in the fall semester. No students will be accepted to start the program in the spring semester. Applicants must provide scores on the general test of the Graduate Record Examination (GRE).

In addition, applicants whose native language is not English must provide scores on the Test of English as a Foreign Language (TOEFL).

Each program has its own admission committee that evaluates the overall academic record of an applicant. Each of these committees uses the following general guidelines during the evaluation process:

- GRE Verbal score of 153 or better (using New GRE Score System);
- GRE Quantitative score of 155 or better (using New GRE Score System);
- GRE Analytical Writing score of 4.5 or better (the GRE Analytical multiple choice is not acceptable);
- For international students: TOEFL computer-based score of 250 (Internet-based score 100; paper-based score 600) or better;
- GPA of 3.5/4.0 or better.

Exceptional candidates who may not satisfy the above general guidelines but excel in other criteria (such as publications in technical conferences and/or journals, scholastic achievement) are encouraged to apply.

Students may apply online by completing the application given at the following web site: [apply.embark.com/grad/syracuse/37/](http://apply.embark.com/grad/syracuse/37/).

## Guidance Committee

A two-person faculty Guidance Committee assists each newly admitted student with program planning. When identified, the dissertation advisor will serve as the principal source of academic advice and counsel.

## Residence Requirements

Students must also satisfy the residency requirements of the Graduate School. These are

given in Section 46.0 (Doctoral Degrees) of the Academic Rules and Regulations of Syracuse University at the following web site: [syracuse.edu/policies/currenttr.pdf](http://syracuse.edu/policies/currenttr.pdf).

## Academic Requirements

Degree programs are tailored to meet the needs of the individual, subject to certain general departmental requirements. The Ph.D. program consists of coursework, examinations, presentations, and a dissertation.

A minimum of 52 credits of coursework is required by the CISE and the ECE doctoral programs, beyond those taken for the bachelor's degree.

## Coursework

Each student must complete at least 48 credits of technical graduate courses at the 600-level or above (courses for graduate students only). Of these 48 credits, 30 credits (number of credits of coursework required for an M.S. degree EECS) provide broad knowledge in the student's field of doctoral work and 18 credits provide depth in student's research area. Therefore, these 18 credits are to be taken from specialized courses at the 700-level or above (graduate courses that have a graduate course as a prerequisite) that support the student's area of research. Independent study courses cannot be used to satisfy the 700-level requirement. Programs of study for CISE Ph.D. students must include CIS 623, CIS 655, CIS 657, and CIS 675.

In addition, each student must complete at least 4 credits of professional development courses. This requirement is fulfilled by taking one 3-credit course in presentational speaking and one 1-credit course in fundamentals of research. The course in presentational speaking, taught by the Department of Communication and Rhetorical Studies, will equip our doctoral students with the ability to deliver effective technical presentations. The course in fundamentals of research will provide doctoral students with fundamental skills needed in their pursuit of a doctoral degree within the context of a small research project.

The following is the summary breakdown of credit requirements:

### Credits

#### Technical Courses 48

(30 credits to provide broad knowledge in the student's field of doctoral work; 18 credits to

provide depth in the student's research area)

#### Non-Technical Courses 4

(3 credits of presentational speaking to equip doctoral students with the ability to deliver effective technical presentations; 1 credit of fundamentals of research to provide students with fundamental skills needed in their pursuit of a doctoral degree within the context of a small research project.)

### Total 52

## Doctoral Program Information

To ensure that all doctoral students have a broad knowledge in their field of doctoral work, they must demonstrate competence by completing coursework in at least three areas from the list associated with the doctoral program the student is pursuing. These two lists are maintained by the program committees of the department. The topics in these lists may vary to reflect the change of their importance in providing doctoral students with a broad education. For example, currently:

- A student in the CISE doctoral program must demonstrate competence by completing coursework in at least three of the following areas:
  - Algorithms
  - Architecture
  - Artificial Intelligence
  - Hardware Systems
  - Logic and Theory of Computation
  - Operating Systems
  - Programming Languages and Compilers
  - Software Systems
- A student in the ECE doctoral program must demonstrate competence by completing coursework in at least three of the following areas:
  - Algorithms
  - Circuits - Digital, Analog and RF
  - Communications
  - Computer Architecture and Hardware Design
  - Devices - Electronic, Microwave and Optical
  - Electromagnetics and Power
  - Engineering Mathematics
  - Signal Processing and Control
  - Software Systems

## Examinations and Colloquium

### Presentations

Students must pass the qualifying examination associated with the doctoral program they are pursuing, proposal defense, and dissertation defense. In addition, students must present their research results to the faculty at the department Colloquium Series.

### Qualifying Examination (QE)

The QE is composed of two parts: Qualifying Examination Part 1 (QE1) which consists of the written eligibility examination, and Qualifying Examination Part 2 (QE2) which consists of the research examination. To pass the QE, doctoral students must pass both of these examinations.

### The objective of the QE1:

Written Eligibility Examination is to ensure that students have mastered the fundamentals pertinent to their doctoral program of study and possess the mathematical maturity necessary to undertake doctoral research. The QE1 must be taken by all students in a doctoral program in the spring semester of their first year of matriculation into the program regardless of whether they have entered the program with a bachelor's or master's degree. In the beginning of each fall semester, the department provides students with the scopes of these examinations. The scopes may vary to reflect the current importance of the topics covered by them.

### The objective of the QE2:

Research Examination is to ascertain that the doctoral student is ready to engage in research. It will include the student's presentation of results of a mini research project, chosen by the student after passing the QE1. It must be taken by all students in a doctoral program in the spring semester of their second year of matriculation into the program.

### Candidacy

Doctoral students are admitted to candidacy after passing the QE. Therefore, they are considered Ph.D. candidates only after passing this examination.

### Research Committee

After passing the QE, the student must identify a faculty member of EECS who will supervise his/her dissertation. The dissertation advisor will guide the student in forming a research committee consisting of two additional faculty members. If any one of these additional faculty members is not from the EECS department, then the membership of the committee must be approved by the chair of EECS. The dissertation advisor will be the chair of this three-member committee. This committee will guide the student during the dissertation work.

### Proposal Defense (PD)

The objective of this oral exam is for the student to demonstrate suitable selection of a dissertation topic and adequate preparation for said research. This exam must be taken within two years of passing the QE.

After passing the PD, the student prepares a dissertation, normally carried out under the supervision of the dissertation advisor. While preparing the dissertation, the student gives a presentation(s) of his/her research work at the department Colloquium Series.

### Colloquium Presentation

The objective of the student's presentation(s) at the Department Colloquium Series is to communicate the student's research results to the faculty and students of the department. The student must give at least one talk at this colloquium based on his/her dissertation prior to the final dissertation defense.

The student may request a final oral examination only upon completion of the dissertation and after its approval by the student's research committee. The research committee is responsible for assessing that the doctoral candidate is a scholar in his/her field of research and can communicate ideas effectively. The assessment demonstrating that the doctoral student has achieved scholarly status must include an outside evaluation by a scholar in the field of the student's dissertation work. This outside evaluation can be in the form of an outside reader who is not a member of the student's research committee, publication in technical journals, or publication in proceedings of refereed conferences.

### Dissertation Defense

The objective of this oral exam is to give final certification of doctoral dissertations. It consists of a capstone seminar to communicate main contributions in the doctoral dissertation, open to general audience, followed by an in-depth

technical assessment of student's work by the examining committee. The examining committee will assess mainly the student's dissertation work but may also assess the student's mastery of related topics and previous work in the field.

### Financial Support

Financial support for Ph.D. students is available in many forms. Such support normally entails a stipend in addition to a scholarship. Graduate teaching assistants, graduate research assistants, fellows, and other students supported financially by the University must exhibit satisfactory progress toward the chosen degree to be reappointed each year. Satisfactory progress is determined by EECS faculty during the yearly review of all doctoral students.

### Time Limit

As required by the Graduate School, all requirements for the Ph.D. degree must be met within five years of the satisfactory completion of the QE.

### Master of Philosophy

The master of philosophy is an intermediate degree between the academic master's degree and the doctor of philosophy. In order for the master of philosophy degree to be awarded, a student must complete all the requirements for the doctoral degree except the dissertation.

### Current Research Areas

Artificial Intelligence Image segmentation and restoration; pattern and shape recognition; computer vision; expert systems; intelligent systems and other applications of fuzzy logic, neural networks and evolutionary algorithms; learning classifier systems; social network analysis; multi-agent systems.

Communication and Information Theory Cognitive radio systems; Shannon theory for multiuser systems; information theoretical security; joint source-channel coding; cooperative communications; energy efficient communications; communication under channel uncertainty and queuing constraints; multiuser MIMO communication systems; MIMO communication with airborne platforms.

Communications and Signal Processing Detection and estimation theory; distributed signal processing and data fusion; adaptive signal processing algorithms and architectures; radar signal processing; knowledge-based signal processing; image processing; digital communications; information theory and processing of auditory signals by the nervous system; coding; parallel algorithms

for signal processing; complexity of DSP algorithms; communication networks; photonic communications; weak signal detection in non-Gaussian environments; analysis of bistatic radars.

Complex Systems Evolutionary algorithms, neural networks, self-organizing systems, dynamical systems, distributed multi-agent systems.

## Computer System Security

Applying security principles to secure computer, network, and information systems; authentication; access control; data protection; privacy; securing web browsers, web servers, and web applications; Smartphone and mobile system security; malware detection and analysis; applying executable code analysis and virtualization techniques to improve computer security; digital forensic analysis; protocol steganography; detecting and thwarting code injection attacks; developing effective methods and materials to improve security education.

Distributed Information Systems Multimedia systems; object-oriented databases; multimedia transport protocols; high bandwidth networks; distributed conferencing; visualization and virtual reality; multimedia storage systems, including optical systems; video on demand; distributed multimedia applications; web technology.

Dynamical Systems and Control Control of dynamical systems; Optimal control; Distributed control of large scale interconnected systems subject to communication and/or structural constraints; Synchronization and coordination of multi-agent networks; Computational tools for optimal control of distributed systems; Analysis and control of spatially-periodic, time-periodic, and sampled-data systems.

Electromagnetic Fields and Antennas Electromagnetic aperture problems; application of matrix methods to radiation and scattering systems; iterative methods for large electromagnetic problems; analysis of printed circuits; adaptive and smart antennas; antenna arrays; antenna array synthesis; development of high-pulsed power systems; analysis of small radomes; time-domain radar; microwave remote sensing of earth terrain; wave propagation in random media; scattering from random surfaces; scattering from composite dielectric and conducting targets; waves in anisotropic media; radar clutter modeling; millimeter and microwave integrated circuits; numerical solution of electromagnetic field problems.

High Confidence Design Formal methods; formal specification, synthesis and verification of software and hardware; computer security;

network security.

Information Fusion and Wireless Sensor Networks Architectures and algorithms for information fusion; wireless sensor network design; detection, estimation, localization, tracking and classification in wireless sensor networks; security and assurance.

Logic in Computer Science Mathematical foundations of hybrid systems and continuous computation, logics for hybrid and continuous computation, quantum computation.

Low-Power System/Circuit Design CPU load/tasking scheduling; job scheduling and task migration for multi-node data centers; job scheduling for temperature control; audio/video circuit board design; innovative signal processing algorithms; redundant logic operation elimination for datapath modules; gate sizing and buffer insertion; bias voltage control at transistor level.

Microelectronics Solid state sensors; nonlinear dielectric and optical materials; thin film growth and processing, high speed electronic devices and circuits; and power electronics.

## Neural Networks

New learning algorithms, adaptive connection systems, self-organizing networks, pattern recognizers, spatio-temporal networks, modular networks, hierarchical networks, evolutionary algorithms, fault-tolerant neural networks, models of biological systems, classification and clustering algorithms.

## Optics and Wave Phenomena

Wave propagation and applications, linear and nonlinear, dispersive and nondispersive; acousto-optic interactions; optical information processing and optical bi stability; optical wave mixing; holography; optical interconnects; optical computing algorithms and architectures; pipelined optical binary computing; wave propagation through random media; waves and fields in anisotropic media; nonlinear echoes.

## Photonics and Optical Engineering

Optical information processing; interconnection and communication networks; fiber optics, fiber light amplifiers, and lasers; photorefractive and bio-optical materials and their applications in wave-mixing and dynamic holography; micro-optic fabrication; optical computing; electro-optics; optical memory; optical wave propagation and diffractions.

## Power Engineering and Smart Grid:

Application, control, and use of distributed energy resources and storage devices; economic, ancillary, and emergency demand response and scheduling optimization under grid and customer-defined constraints; advanced metering infrastructure; communications, information management, and automated power system control technologies.

## Programming Languages

Denotational semantics, logics of programs, formal methods, semantic models of parallel programs, fair behavior and liveness properties of parallel programs, applications of semantic models to program design, parallel program correctness.

RF and Wireless Engineering Analysis and design of RF and Wireless and satellite communication circuits and systems.

## Software Engineering

Software models; metric and formal methods; fault-tolerant software and software reliability; software reusability; object-oriented software engineering methods and tools; techniques for software engineering data analysis; distributed and parallel software development; trusted systems.

Statistical Signal Processing Detection and estimation theory; decentralized signal processing and data fusion; adaptive signal processing algorithms and architectures; compressive sensing; stochastic resonance and noise enhanced signal processing; remote sensing and image processing; radar signal processing, computer vision and pattern recognition; signal processing for security and information assurance; machine learning.

## Systems Assurance

Systems assurance focuses on the design, development, and deployment of information systems with a particular emphasis on networked systems, information assurance, information security, information integrity, and privacy. Our research focuses on the ways information systems are designed to work reliably, safely, correctly, and securely. These methods also aim to reduce the complexity of systems assurance. Our research also focuses on developing algorithms and protocols to achieve security and privacy in network and distributed computing.



## Theory of Computation

Computational complexity of higher-order functionals, complexity of “lazy” computation, biological models of computation, and computational learning theory.

VLSI Computer-aided design and architectures design, verification and testing of VLSI systems aided by EDA tools (Cadence, Synopsys, etc.); design of digital, analog, and mixed-signal systems; functional verification; testing; computer-aided design techniques for routing, simulation, verification, and synthesis; silicon compilation; formal verification; high-level synthesis; system integration; applications of declarative programming languages; algorithms and architectures for parallel and distributed systems.

Wireless Networks Cross-layer design and resource allocation; mobile phone sensing; mobile and distributed computing; wireless smart camera networks; energy efficient wireless networks; market based designs; game theoretic formulations for adversarial environments.

## Systems Assurance Institute (SAI)

The SAI is a collaboration of four renowned Syracuse University institutions: L.C. Smith College of Engineering and Computer Science, School of Information Studies, S.I. Newhouse School of Public Communications, and the Maxwell School of Citizenship and Public Affairs. SAI advances the understanding and state-of-the-practice of systems assurance by providing a collaborative focus among Syracuse University faculty and external affiliates. The collaboration encompasses three major areas: basic and applied research, academic education and workforce development training, and technology transfer prompting economic growth. Technology transfer is accomplished through Syracuse University's Computer Applications and Software Engineering (CASE) Center. For more information about SAI, visit: [sai.syr.edu/](http://sai.syr.edu/). Information about the NSF Scholarship for Service may also be found at this web site.

## Research Laboratories

**Communication Laboratory** This laboratory is dedicated to communication and signal processing research. On-going research projects include information theoretic study of multi-user communications; decentralized statistical signal processing for information fusion; MIMO communications for airborne platforms; and various enabling technologies for cognitive wireless networks.

**DOPL Laboratory** is the home for doctoral students working on management and restructuring of large software systems, high

performance computing using GPUs and computer clusters, and tools for visualizing and understanding complex software systems.

## Distributed Multiagent Laboratory (DMA Lab)

The DMA lab provides a unique environment for exploring basic research and applications on distributed multiagent systems. Areas of research include software agents, real-time intelligent distributed systems, evolutionary and Bayesian game theory, applications of artificial intelligence techniques on computer systems problems, and Internet algorithms and applications.

## Fiber Fabrication Research Laboratory

This laboratory has a facility for fabricating specialty optical fibers; vacuum systems, including a special ultra-high vacuum system for evacuating ampoules; various furnaces, including a high-pressure furnace for preform fabrication; a fiber-pulling tower capable of drawing about 3 km of fiber from a 20 cm preform; and extensive fiber analysis equipment, including a special fiber microscope and an automatic optical spectrum analyzer. A process has been developed here for fabricating fibers with very thin layers of optically active material at the core cladding boundary. The optically active materials are semiconductors, metals, lithium niobate, and magnetic materials. These fiber devices are typically 3 to 20 mm long and have a large variety of applications in communication, computer memories, and sensors. Examples of these applications are fiber light amplifiers, sonar detectors, and true image light amplifiers in full color and 3-D, etc. Both graduate and undergraduate students participate in this research.

## Microelectronics Laboratory

This laboratory has processing and measuring instrumentations for the fabrication and characterization of integrated devices and circuits. The laboratory is equipped with thin film deposition systems, including ion beam assisted sputtering system, thermal evaporation system.

Photolithography, high temperature diffusion furnace and chemical processing set ups allow students to build semiconductor devices, thin film sensors, and integrated circuits. Measurement equipments include four-point probe system for measuring capacitance and dielectric loss as a function of frequency and temperature, hall

measurement, etc. This laboratory facility is used for both research and teaching. Ongoing research projects involve development of metal-oxide gas sensors, conductive transparent film for solar applications.

## Photonics Laboratory

The Photonics Laboratory has five fully equipped optics rooms. Each has a vibration isolated optical table and various kinds of optical devices and elements. It has a one-dimensional detector array, a digital rail, a CCD camera and image processing system, a digital scope, and various photo-detectors and laboratory accessories. In addition, we have a 5-W Argon Ion laser, a 50 mW He-Ne laser, and a number of semiconductor lasers. Research efforts include information processing for two-dimensional and three-dimensional data related to military as well as commercial applications, micro-fabrication of electro-optical diffractive optical elements, photonic switching as related to computer and communication networks, real-time holography for free-space beam steering and optical intersections, and three-dimensional optical memory and molecular electronics for the future generation of high-density and large-capacity digital storage devices.

**Power Engineering and Smart Grid Laboratory** has three specialized units. First unit is for Power Electronics experiments, equipped with two switching power pole boards for DC-DC power conversion with capabilities of analog and digital output control and for Electromechanical Devices, equipped with two switching power boards for DC-DC and DC-AC power conversion with capabilities of digital output control along with a set of controlled electromechanical DC and AC devices. Second unit is Smart grid lab, which includes a micro-grid with renewable energy (such as wind, solar) conversion and control, energy storage and control, a double transmission line, a distribution network, 7 feeders and smart meters, a static and a dynamic load, and a power factor correction device. Third unit is Smart home lab, which includes smart home appliances, smart meters with communication node and data processing interfaces. Primary goals are to provide hands-on experience to students to understand power system operations, to collect and analyze data using the model of a real micro-grid power network, to test different vendors' equipment, to investigate and compare new system components for measurement and control, and to develop new solutions for local and remote control as well as investigate cyber security.

## RF, Wireless, and Signal Processing Laboratory

Fabrication facilities exist here to make printed

circuits with accuracy up to 70 microns, both for VLSI and microwave CAD. Equipment for characterizing devices directly in both time and frequency domains is also available. The laboratory is equipped with a Waveform Processing System capable of analyzing devices up to 18 gigahertz. In addition, a Vector Network analyzer operating from 45 megahertz to 26.5 gigahertz can not only characterize noise figures of devices, but can also measure various network parameters of printed circuits, devices, and antennas. This equipment is computer controlled for higher accuracy and ease of measurement. In addition, a high-power Quantronix laser system provides the capability of performing research in impulse radar technology. With the help of laser-activated photo-conductive switches it is possible to generate kilovolt amplitude electrical pulses of 300 picoseconds duration. Several high-end workstations provide the capability of solving challenging problems in electromagnetics and signal processing. By adding DSP boards to Pentium processors it is also possible to carry out real-time adaptive signal processing.

## Sensor Fusion Laboratory

The primary focus of this laboratory is research related to statistical signal processing for multi-sensor systems and cognitive wireless networks. Current research projects involve signal processing for distributed detection and estimation, fusion algorithms for multimodal sensors, cognitive radio networks, security and assurance of cognitive wireless networks and sensor networks, compressive sensing, theory and application of stochastic resonance and wireless sensor networks applications. This laboratory provides state-of-the-art computing facilities.

VLSI Systems Design and CAD Laboratory aims to develop design methodologies and techniques that empower designers to design, test, verify, and build systems on a chip. Current research focus is around high-level synthesis for digital and mixed-signal systems, reconfigurable computing, and CAD for physical design.

Web and Smartphone Security Lab Conducts research on web and Smartphone security. Current research projects involve access control systems for web browsers, web servers, and web applications, authentication, access control, and data protection for Smartphones, and security enhancement for the Android operating system and applications. The lab is also the owner of the SEED project, which produces hands-on lab exercises for computer security education; these exercises are being used by over a hundred universities worldwide. The lab is equipped with Smartphone devices and development technologies, as well as powerful servers for

system development.

## Mechanical and Aerospace Engineering, PhD

### Chair:

H. Ezzat Khalifa, 263 Link Hall, 315-443-2341; fax: 315-443-9099, gradinfo@syr.edu.

### Faculty:

Jeongmin Ahn; Benjamin Akih-Kumgeh; Michelle Blum, Edward A. Bogucz Jr., Frederick Carranti, Thong Dang, John F. Dannenhoffer III, Barry D. Davidson, Mark N. Glauser, Melissa Green, H. Ezzat Khalifa, Benjamin Akih-Kumgeh, Alan J. Levy, Jacques Lewalle, Shalabh Maroo, Young Bai Moon, Vadrevu R. Murthy, Utpal Roy, Eric F. Spina, Jianshun S. Zhang

The Department of Mechanical and Aerospace Engineering offers graduate programs leading to the following degrees:

- Master of Science (M.S.) in Mechanical and Aerospace Engineering
- Doctor of Philosophy (Ph.D.) in Mechanical and Aerospace Engineering

It also participates in a college-wide master program leading to the degree:

- Master of Science (M.S.) in Engineering Management

## Admission Requirements

Admission to the Ph.D. program will be considered if three conditions are met. First, a sufficient level of academic and professional achievement must be documented by transcripts of the student's prior academic performance (a GPA of 3.33/4.0 or better is expected), GRE Quantitative score of 700+ (155+ on the new scale) and an acceptable GRE verbal score, and letters of recommendation and other supporting information. Second, the focusing of the student's efforts in one area of specialization should be clear from the student's transcript and statement of purpose. Third, a faculty adviser must be willing to supervise research in the student's area of specialization. Prior completion of a M.S. degree and/or an M.S. thesis may be required by individual faculty advisers.

## Application Procedure

Online application is the preferred method of applying to graduate programs at Syracuse

University. Applications submitted online can be processed faster and more efficiently than those filed on paper. Access the online application.

You will receive an e-mail or postcard from Syracuse University when your application has been received and processed. Find out more information on the application process.

## Program

A program of study is individually designed by each student in consultation with his or her adviser. A student entering the Ph.D. program with a master's degree or an equivalent degree (approved by the Graduate Affairs Committee) is expected to complete 18 credits of 600 or above level of course work and a Ph.D. dissertation (of 0-credits). Students wishing to proceed directly to the Ph.D. degree from a bachelor's degree must complete a program of 48-credit course work (with no more than 9 credits of courses at 500-level) [1] and a Ph.D. dissertation (of 0-credits). A GPA of 3.33 or better is expected for a Ph.D. student. Full-time Ph.D. students must also attend the MAE graduate seminars every semester (MAE 995: 0 credits; graded A/B/C/F, based on attendance) [2]. Graduate courses can be found in the Course Catalog, using the search engine.

## Ph.D. Qualifying Examination

The MAE Department requires that each Ph.D. student pass a qualifying examination. The qualifying examination will have both written and oral components. The objective of the qualifying examination is to test the student's knowledge of fundamentals and preparedness to conduct dissertation research. As a pre-requisite to the qualifying examination, a Ph.D. student must complete a minimum of 39 credits after B.S. or 9 credits after M.S. and must have a cumulative 3.33 GPA or better at the time of taking the qualifying exam. Full-time students who enter the MAE graduate program with a B.S. degree must take the written component of the qualifying examination at or before the completion of the sixth semester of their graduate study. Full-time students who transfer into the Ph.D. program with an M.S. degree (or an equivalent degree) must take the written component of the qualifying examination at or before the completion of three semesters of first registration in the program. Part-time students should take the qualifying examination after they have taken 39 credits after B.S. or 9 credits after M.S. and within 1 year of completion of these credits. The oral component of the qualifying examination must be taken no later than one year after passing the written examination.

The written component of the qualifying examination will test the student's competency at the level of SU's 600 level courses in mathematics

## GRADUATE COURSE CATALOG

(e.g., MAE 675), plus any two of the following topics: Fluid Dynamics (e.g., MAE 643), Solid Mechanics (e.g., MAE 635), Heat Transfer (e.g., MAE 655 or MAE 657), Thermodynamics (e.g., MAE 651), Design, Manufacturing, Dynamics and Control, and Special Topics in a selected area. If a student selects Special Topics, s/he must inform the MAE Graduate Affairs Committee in writing of the special area in which s/he wants to be examined.

In consultation with the student and his/her adviser, the Graduate Affairs Committee will form a committee of oral examination consisting of 3 to 5 members with a minimum of 2 to 3 members from the MAE Department, including the adviser. The student must provide a proposal for dissertation research to the members of the oral examination committee at least two weeks before the scheduled date of examination. The examination will typically take 2 hours to complete, in which the student will first make a 35-minute presentation of the research proposal followed by questions from each individual members of the committee. Based on the quality of dissertation proposal, presentation, and answers to the questions, the committee will deliberate and inform the student of the outcome of the examination, and report the outcome to the MAE Graduate Affairs Committee in writing.

In consultation with the adviser, a Ph.D. student must formally apply to take the qualifying examination by petitioning the chair of the Graduate Affairs Committee on or before October 15 in the fall semester or March 15 in the spring semester in order to take the examination during the following academic semester. The written part of the Ph.D. qualifying examination will be given twice a year; one at the end of the fall semester and the other at the end of the spring semester. In the application letter, the student should specify his/her field of study/interest and include a copy of his/her transcript showing the current GPA. The Graduate Affairs Committee determines whether the student has passed the qualifying examination. In the event of failure, the Graduate Affairs Committee may permit the candidate to retake the written and oral examinations only once more. No one will be permitted to go beyond the above mentioned time limits as stipulated in the first paragraph under Qualifying Examination. Failure to pass the examination in a timely fashion will result in dismissal from the Ph.D. program.

### Residency Requirement

The residence requirement is set by Academic Rules and Regulations of the Graduate School.

### Dissertation

Each student is required to prepare a dissertation of high quality in terms of substance, originality and relevance, on a topic chosen in consultation

with the dissertation adviser. The dissertation defense shall be conducted according to the rules of the Graduate School. In preparing the dissertation, the student should comply with accepted standards of style and format. The examination committee may refuse to hold the examination until such standards are met.

### Evaluation of Ph.D. Student's Progress

In the spring semester, the status of every Ph.D. student will be reviewed by the MAE faculty. The review will include a brief summary by the adviser of the progress made by the student and any current or potential problems. If the progress is unsatisfactory, the student will be given six months to address issues of concern. If the situation has not improved, the student will not be allowed to continue in the program and will be so informed in writing.

### Note:

[1] Of the 48-credit course work, 30 credits should be equivalent to our M.S. degree requirements.

[2] Part-time M.S. students may petition the Graduate Affairs Committee for partial exemption from seminar attendance.

### Combined Degree

### Aerospace Engineering/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records  
& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

### Students will complete 128 credits for the Bachelor of Science in Aerospace Engineering degree and an additional 54 credits for the MBA degree.

### 3+2 Program

### 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:

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.

### Bioengineering, BS/MS

## Combined Degree Program

### Contact

Radhakrishna Sureshkumar, Biomedical & Chemical Engineering Department Chair  
329 Link Hall, 315-443-1931, rsureshk@syr.edu  
James H. Henderson, Graduate Program Director  
303 F Bowne Hall, 443-9739, jhhender@syr.edu  
Andrew Darling, Undergraduate Program Director  
361 Link Hall, 443-4848, andarlin@syr.edu

### Faculty

Rebecca A. Bader, Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Andrew L. Darling, 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

### Description

The combined degree is for students to complete the Bachelor of Science in Bioengineering and the Masters of Science in Bioengineering degrees consecutively, with a goal of completing both degree requirements in five years. 6 credits of 500-level courses may be counted towards both Bachelor's and Master's degrees. A block of transfer credits labeled as "transferred from SU undergraduate record" appears on the graduate record and applies credit hours toward the graduate degree, but is not calculated in the graduate GPA. The proposed curriculum is compatible with either the non-thesis plan or thesis plan for the Master's degree, with the non-thesis option considered the default. If the student elects the thesis plan, 6 thesis credits will replace 3 credits of BEN graduate technical electives and 3 credits of engineering/math/science graduate electives.

### Admission

Students must be currently enrolled in the BS bioengineering program at Syracuse University, and should apply to the combined BS and MS program in the first semester of their third year of study. Admission is based upon 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 all bachelor's degree requirements have been met.

## Bioengineering/Business Administration, BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records & Study Abroad, College of Engineering & Computer Science, 130 Link Hall, 315-443-5191, mcmarce@syr.edu

## Students will complete 130 credits for the Bachelor of Science in Bioengineering degree and an additional 54 credits for the MBA degree.

### 3+2 Program

### 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:

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.

## Chemical Engineering, BS/MS

## Combined Degree Program

### Contact

Radhakrishna Sureshkumar, Biomedical & Chemical Engineering Department Chair  
329 Link Hall, 315-443-1931, rsureshk@syr.edu

Dacheng Ren, Chemical Engineering Graduate Program Director  
357 Link Hall, 443-4409, dren@syr.edu  
Katie Cadwell, Chemical Engineering Undergraduate Program Director  
341 Link Hall, 443-4756, kdcadwel@syr.edu

### Faculty

Rebecca A. Bader, Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Andrew L. Darling, Jeremy L. Gilbert, Julie M. Hasenwinkel, James H. Henderson, George C. Martin, Patrick T. Mather, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Lawrence L. Tavlarides, Radhakrishna Sureshkumar

### Description

The combined degree program is offered for the student who wants to complete consecutively the Bachelor of Science and Master of Science degrees in Chemical Engineering. The combined degree program is designed to be completed in five years, with the student taking two graduate courses in the senior year. Up to 6 credit hours may be counted towards both the bachelor's and the master's degrees. A block of transfer credits

## GRADUATE COURSE CATALOG

labeled as “transferred from SU undergraduate record” appears on the graduate record and applies credit hours toward the graduate degree, but is not calculated in the graduate GPA. Graduate courses taken in the fourth year of study not required for completion of the bachelor’s degree are included in the undergraduate tuition but appear only on the graduate record, and grades calculate only toward the graduate GPA.

### Admission

Students must be currently enrolled in the BS chemical engineering program at Syracuse University, and should apply to the combined BS and MS program in the first semester of their third year of study. Admission is based upon 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 all bachelor’s degree requirements have been met.

### Chemical Engineering/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records  
& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

**Students will complete 128  
credits for the Bachelor  
of Science in Chemical  
Engineering degree and an  
additional 54 credits for the  
MBA degree.**

3+2 Program

### 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:

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.

### Civil Engineering/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records

& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

**Students will complete 128  
credits for the Bachelor of  
Science in Civil Engineering  
degree and an additional 54  
credits for the MBA degree.**

3+2 Program

### 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:

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

## GRADUATE COURSE CATALOG

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.

## Computer Engineering, BS/MS

### Contact:

Qinru Qiu, Program Director, 4-133 Center for Science and Technology, 315-443-1836, Fax 315-443-2583; qjqiu@syr.edu

### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

### 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

## Computer Engineering/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315, 315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records & Study Abroad, College of Engineering & Computer Science, 130 Link Hall, 315-443-5191, mcmarce@syr.edu

### Students will complete 129 credits for the Computer Engineering degree and an additional 54 credits for the MBA degree.

3+2 Program

### 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:

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.

## Computer Science, BS/MS

Combined Degree Program

### Contact

Susan Older, 4-181 Center for Science and Technology, 315-443-4679, Fax 315-443-2583; sueo@ecs.syr.edu

### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Heng Yin, Edmund Yu, Reza Zafarani

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. One course (3 credit hours) at the 500-level or higher may be counted towards both the bachelor's and the master's degrees, so that the two degrees together require at least 150 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.

\*See Online Course Catalog, Academic Rules, Degrees, TABLE H Combined Undergraduate/Graduate Degree Programs

### **Computer Science/ Business Administration (3-2 Program), BS/MBA**

#### **Contact**

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records  
& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

**Students will complete 124  
credits for the Bachelor of  
Science in Computer Science  
degree and an additional 54  
credits for the MBA degree.**

3+2 Program

### **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:**

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.

### **Electrical Engineering, BS/MS**

#### **Contact:**

Prasanta K. Ghosh, Program Director, 4-131  
Center for Science and Technology, 315-443-  
4440, Fax 315-443-2583; pkghosh@syr.edu

### **Faculty**

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoong Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

### **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

### **Electrical Engineering/ Business Administration (3-2 Program), BS/MBA**

#### **Contact**

Whitman Graduate Programs Office, Suite 315,

## GRADUATE COURSE CATALOG

315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records & Study Abroad, College of Engineering & Computer Science, 130 Link Hall, 315-443-5191, mcmarce@syr.edu

### **Students will complete 132 credits for the Bachelor of Science in Electrical Engineering degree and an additional 54 credits for the MBA degree.**

#### **3+2 Program**

#### **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:**

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.

### **Environmental Engineering/Business Administration (3-2 Program), BS/MBA**

#### **Contact**

Whitman Graduate Programs Office, Suite 315, 315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records & Study Abroad, College of Engineering & Computer Science, 130 Link Hall, 315-443-5191, mcmarce@syr.edu

### **Students will complete 129 credits for the Bachelor of Science in Environmental Engineering degree and an additional 54 credits for the MBA degree.**

#### **3+2 Program**

#### **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:**

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.

### **Law/Computer Science, JD/MS**

#### **Law/Computer Science**

The Juris Doctor and Master of Science are combined degrees which may be conferred by the College of Law and Syracuse University's L.C. Smith 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



## GRADUATE COURSE CATALOG

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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbboth@law.syr.edu).

### **Mechanical Engineering/ Business Administration (3-2 Program), BS/MBA**

#### **Contact**

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records  
& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

**Students will complete 128  
credits for the Bachelor  
of Science in Mechanical  
Engineering degree and an  
additional 54 credits for the  
MBA degree.**

3+2 Program

#### **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:**

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.

#### **Certificate of Advanced Study Cybersecurity, CAS**

#### **Contact:**

Dr. Kishan Mehrotra, Professor and Chair,  
mehrotra@syr.edu  
4-177 Center for Science and Technology  
315-443- 2811

#### **Faculty:**

Drs. Susan Older, sueo@ecs.syr.edu, Shiu-Kai  
Chin, skchin@syr.edu, Stephen Chapin, chapin@  
syr.edu, Howard Blair, blair@syr.edu, James Royer,  
jsroyer@syr.edu, Wenliang Du, wedu@syr.edu, Heng  
Yin, heyin@syr.edu

#### **Description:**

The Department of Electrical Engineering and  
Computer Science offers the 12-credit Certificate

of Advanced Study (CAS) in Cybersecurity. This program provides the necessary foundations for the design and development of systems that are assured to be secure. Secure systems exhibit the traditional properties of confidentiality, integrity, and availability through authentication, reference monitoring, and sound design and implementation. Assured systems are secure systems whose properties are verified or proven.

Successful graduates of this program demonstrate the following attributes:

1. The ability to identify and analyze vulnerabilities in systems, to assess the risks faced by systems, and to develop countermeasures to remedy risks;
2. The ability to develop systems that are secure;
3. The ability to deliver software components or systems that have verifiable assurance properties.

#### **Admission:**

This program is open to persons who possess at least a Bachelor's degree in Computer Engineering, Computer Science, or a related field.

#### **Requirements:**

To receive the CAS in Cybersecurity, students must satisfactorily complete the following four courses:

- **CIS 643 - Computer Security 3 credit(s)**
- **CIS 644 - Internet Security 3 credit(s)**
- **CIS 634 - Assurance Foundations 3 credit(s)**
- **CIS 652 - Building Assured Components 3 credit(s)**

#### **Additional Information**

Students must maintain a GPA of at least 3.0

#### **Degree:**

Certificate of Advanced Study

Total Credits: 12

#### **Envrionmental Health, CAS**

#### **Department Chair:**

Dr. Ossama "Sam" Salem  
151 Link Hall  
315-443-2311  
omsalem@syr.edu

#### **Contact:**

## GRADUATE COURSE CATALOG

Dr. Cliff I. Davidson  
151 Link Hall  
315-443-2311  
davidson@syr.edu

### Faculty:

David G. Chandler, Ruth Chen, Andria Costello Staniec, Cliff I. Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Laura J. Steinberg, Svetoslava Todorova, Swiatoslav W. Kaczmar, Philip Goodrum

### Description:

In this 12-credit certificate program, students will develop the skills and knowledge necessary to address problems related to environmental health. The program includes instruction in toxicology, industrial hygiene, environmental engineering, and risk assessment appropriate for those wishing to pursue careers in environmental health engineering. The program may be completed independently of other degree programs at Syracuse University, and is open to students in the College of Engineering and Computer Science and the CNY-MPH program.

### Admission:

Students applying for the Certificate Program in Environmental Health must have completed a bachelor's degree in a field relevant to environmental health. Students will normally have completed at least one year of calculus, one year of general chemistry, and one semester of biology. Students may apply to the certificate program by submitting one of the following:

- Graduate Enrollment Internal Admission Application with a letter of intent (for matriculated graduate students in other Syracuse University graduate programs).
- Syracuse University Graduate School Application with all admission requirements (for those who wish to complete the certificate program independently).

### Requirements:

To complete the certificate program, students must take four three-credit classes. Two classes are required:

- **CIE 554 - Prin Envrn Toxicology 3 credit(s)**
- **CIE 674 - Environmental Health Engineering 3 credit(s)**

### Additional Requirements:

In addition, students must choose two courses from the following:

- **CIE 529 - Risk Anlys in Civ Engin 3**

### credit(s)

- **CIE 555 - Hazardous Waste Mgmt 3 credit(s)**
- **CIE 764 - Industrial Hygiene Eng 3 credit(s)**

### GPA Requirement:

Students must achieve a GPA of 3.0 or greater in the four courses used to complete the certificate program.

### Degree:

Certificate of Advanced Study

### Total Credits: 12

## Microwave Engineering, CAS

### Faculty

Thomas Barnard, Howard A. Blair, Tomislav Bujanovic, Stephen J. Chapin, Biao Chen, C.Y. Roger Chen, Shiu-Kai Chin, Jun Hwan (Brandon) Choi, Wenliang (Kevin) Du, Sara Eftekharijad, Ehat Ercanli, Makan Fardad, James W. Fawcett, Prasanta Ghosh, Jennifer Graham, Mustafa Cenk Gursoy, Robert Irwin, Can Isik, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Yingbin Liang, Duane L. Marcy, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phooha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Fred Schlereth, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Hong Wang, Yanzhi Wang, Heng Yin, Edmund Yu, Reza Zafarani

The Department of Electrical Engineering and Computer Science (EECS) at Syracuse University offers the Certificate of Advanced Study in Microwave Engineering (CASME). This certificate program reflects the Department's strength in the theoretical and practical aspects of microwave engineering.

### Background

There is a shortage of microwave engineers in the U.S. This is primarily due to the fact that a microwave engineer must have a solid background in microwave theory coupled with hands-on experience designing, simulating, building, and testing microwave devices. The defense industry has traditionally employed microwave engineers since many of the electronic devices used by the defense industry work at microwave frequency. During the last decade, the demand for microwave engineers in the commercial world has soared

due to the recent "explosion" in the wireless systems.

### Overview of Certificate

The comprehensive set of courses in this certificate program provides a strong theoretical basis for microwave engineering. Moreover, participants of the program gain hands-on experience in practice of microwave engineering. The project-based courses of the certificate teach the students how to design, simulate, build, and test microwave devices such as amplifier, filter, oscillator, or antenna. The simulation tools used in these courses are identical to some of the commercial software used by microwave industry. The test equipment used is state-of-the-art microwave measurement devices commonly used by the industry.

### Admission Requirements

Admission is based on academic record of a BS in electrical engineering, professional experience, and letter of recommendation.

### Educational Objectives and Outcomes

The students earning this certificate will have developed a thorough understanding of microwave theory coupled with the ability to design, simulate, build, and test microwave devices.

The certificate is composed of a comprehensive and coherent collection of courses to ensure that students acquire the following educational outcomes:

1. Mastery of the underlying principles of microwave theory.
2. Use of microwave theory concepts to design microwave devices satisfying a given set of specifications and to predict their behaviors.
3. Use the latest software tools to simulate microwave circuit behavior.
4. Use microwave theory concept and CAD software to optimize microwave circuits to meet given specifications.
5. Mastery of the use of microwave equipment such as network analyzer, spectrum analyzer, and antenna chamber.

### CASME Requirements

The CASME program builds on the foundation established in a standard undergraduate electrical engineering program.

To earn a CASME the student must take a series of courses depicted below whose description can be found in the catalog course listing.

## GRADUATE COURSE CATALOG

1. Students must successfully complete:

- **ELE 621 - Electromagnetic Fields 3 credit(s)**
- **ELE 623 - Microwave Measurements 3 credit(s)**

2. Students must successfully complete four courses from the following list

*satisfying the restriction specified below:*

- **ELE 721 - Antennas and Antenna Systems 3 credit(s)**
  - **ELE 722 - Microwave Filters 3 credit(s)**
  - **ELE 723 - Microwave Transistor Amplifiers 3 credit(s)**
  - **ELE 724 - Microwave Oscillators 3 credit(s)**
  - **ELE 725 - Electromagnetic Engineering I 3 credit(s)**
  - **ELE 726 - Computational Methods of Field Theory 3 credit(s)**
  - **ELE 751 - Wireless Communications 3 credit(s)**
  - **ELE 591 - Special Problems in Electrical Engineering 1-4 credit(s) or**
  - **ELE 691 - Special Topics in Electrical Engineering 1-4 credit(s)**
- Topic: Physical Aspects of Modern Wireless Communications
- **ELE 791 - Advanced Topics in Electrical Engineering 1-4 credit(s)**
  - **ELE 827 - Electromagnetic Engineering II 3 credit(s)**

Restriction:

A selection of four courses must include at least two of the following:

*(Special topics courses 700-level or above may be used to fulfill this requirement if approved by Dr. Jun (Brandon) Choi).*

- **ELE 721 - Antennas and Antenna Systems 3 credit(s)**
- **ELE 722 - Microwave Filters 3 credit(s)**
- **ELE 723 - Microwave Transistor Amplifiers 3 credit(s)**
- **ELE 724 - Microwave Oscillators 3 credit(s)**

### Additional Information

Must maintain a cumulative total GPA of at least a 3.0 in those courses to be credited towards the CASME

### Credits Towards a Mater's Degree

Successful completion of the CASME does not ensure admission to the Master of Science in Electrical Engineering (MSEE). However, the credits earned by completing the courses specified above can be accepted toward the MSEE Program.

### Public Infrastructure Management and Leadership, CAS

### Department Chair:

Dr. Ossama "Sam" Salem, 151 Link Hall, omsalem@syr.edu, 315-443-2311

### Program Description

The College of Engineering and Computer Science (ECS), in collaboration with the Department of Public Administration (PA) and the Executive Education Program (Exec Ed) within The Maxwell School (Maxwell) at Syracuse University have created a joint 15-credit certificate program entitled the Joint Certificate of Advanced Studies in Public Infrastructure Management and Leadership (CAS-PIML). This certificate program is geared towards mid-career professionals that are interested in building on their body of experience and expanding their skills and knowledge in infrastructure planning, engineering, management and administration through course work that is relevant to their knowledge, interests, and needs.

The CAS-PIML will deliver a certificate to students in both ECS and Maxwell that addresses the planning, design, construction, maintenance, security, capital and operating budgets, environmental and social sustainability impacts and public policy considerations, of public infrastructure. Students will develop skills and knowledge that will assure awareness and competency for functional, financial, environmental and social sustainability concerns of our public infrastructure. In this context, public infrastructure is broadly defined as physical service systems, i.e. water, storm water and waste water systems, transportation, electrical power distribution and telecommunications. The certificate program will be enhanced by on-going speaker programs, executive workshops, and seminars. It will be open to students in both colleges. Applications from students seeking

only this certificate will also be considered. The application process will be administered by the Executive Education Program of the Maxwell School.

### Certificate Requirement

The CAS-PIML will allow mid-career students interested in Public Infrastructure Management an opportunity to complete a 15-credit program, capitalizing on the numerous strengths within ECS, combined with the Public Administration and Executive Education programs within the Maxwell School of Citizenship and Public Affairs. In the program, they will combine multi-disciplinary academic coursework with the real-world strategy and problem-solving skills necessary for today's leaders in complex public administration and utility environments. The degree program will integrate core courses with a career-track elective to provide a solid, yet dynamic and pertinent foundation for advanced studies in the technical and practical challenges of the development and oversight of public infrastructure - including water and wastewater systems, transportation, communications and power.

### Core Courses (12 credits)

- **PAI 895 - Mid-career Training Group 1-3 credit(s)**
- **PAI 734 - Public Budgeting 3 credit(s)**
- **PAI 731 - Financial Management in State and Local Governments 3 credit(s)**
- **MAE 548 - Engineering Economics and Technology Valuation 3 credit(s)**
- **ECS 636 - Sustainable Development and Infrastructure Management 3 credit(s)**

### Career Elective (3 credits):

One course selected from the list below, or approved by the program director

- **CIE 570 - Water&Wastewtr Trtmnt Des 3 credit(s)**
- **CIE 601 - Construction Engineering and Project Management 3 credit(s)**
- **CIE 643 - Transportation Engineering 3 credit(s)**
- **CIE 678 - Rehabilitation of Civil Infrastructure 3 credit(s)**
- **PAI 601 - Fundamentals of Conflict Studies 3 credit(s)**
- **PAI 709 - Research Consultancy in Public Diplomacy 3 credit(s)**
- **PAI 730 - Problems in Public Administration 1-3 credit(s)** Managing

## GRADUATE COURSE CATALOG

Individual, Group, and Systemic Conflicts

- PAI 730 Environmental Conflicts and Collaboration
- **PAI 757 - Economics of Development 3 credit(s)**
- **PAI 777 - Economics of Environmental Policy 3 credit(s)**

Total Credits: 15

Total 15 credits leading to a Certificate of Advanced Study in Public Infrastructure Management and Leadership

## Sustainable Enterprise (CASSE), CAS

## Contact

Todd Moss, Faculty Director Sustainable Enterprise Partnership, 540 Whitman School of Management, 315-443-9215, tmoss@syr.edu

## Program Description

The Certificate of Advanced Study in Sustainable Enterprise (CASSE) is offered collaboratively by the Whitman School of Management, the College of Engineering and Computer Science, the State University of New York College of Environmental Science and Forestry, and the Syracuse Center of Excellence in Environmental and Energy Systems. The CASSE integrates business, science, engineering, policy, and practice, taking a transdisciplinary approach to sustainable enterprise.

Students who complete the certificate will be fluent in the economic, environmental, and social dimensions of sustainability and their interdependence; systems science and its relationship to sustainability; and the natural, financial, technical, legal, and social drivers of sustainability strategy in businesses and other organizations. They will be prepared to engage in transdisciplinary collaboration to develop sustainable solutions to complex organizational challenges.

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

## Financial Support

Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

Additionally, there are partial scholarships available for students who need to take additional courses above and beyond their graduate degree program to complete the CASSE program.

## Admission

Students must be matriculated into a graduate program at Syracuse University or SUNY ESF to be considered for admission to the program.

## Certificate Requirements

Students must complete 15 credits for the certificate.

- **BUA 650 - Managing Sustainability: Purpose, Principles, and Practice 3 credit(s)** or
- **ECS 650 - Managing Sustainability: Purpose, Principles, and Practice 3 credit(s)** or
- EST 696 - Managing Sustainability: Purpose, Principles, and Practice 3 credit(s)
- **BUA 651 - Strategic Management and the Natural Environment 3 credit(s)** or
- **ECS 651 - Strategic Management and the Natural Environment 3 credit(s)**
- **BUA 759 - Sustainability-Driven Enterprise 3 credit(s)** or
- **ECS 759 - Sustainability-Driven Enterprise 3 credit(s)** or
- EST 796 - Sustainability-Driven Enterprise 3 credit(s)

6 credits of electives

## Aerospace Engineering

### AEE 527 - Helicopter Dynamics

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
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 - Hypersonic/High Temperature Gas Dynamics

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
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

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring  
Two-body orbital mechanics, orbits and trajectories, interplanetary transfers, vehicle and booster performance.  
PREREQ: ECS 222

### AEE 628 - Adv Spacecraft Dyn

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
Analytical techniques, including dyadic operators for rotational motion, Lambert's theorem and its use in spacecraft mission analysis computer programs, and Bierman's factorized estimation board.

### AEE 636 - Structural Dynamics/Vehicle

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
Static aeroelasticity, unsteady aerodynamics of airfoils and wings, lifting surface flutter, panel flutter, and dynamic response including modal techniques.  
PREREQ: MAE 627

### AEE 637 - Adv/Mech/Aerospace/Structr

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
Structural problems not amenable to elementary analysis, such as swept and delta wings, stresses around cutouts, shear lag, torsion with restrained warping, general instability of stiffened shells, thermal stresses. Matrix and energy methods.

### AEE 685 - Principles of Turbomachines

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
Crosslisted with: MAE 585, 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.

### AEE 727 - Adv Helicopter Dynamics II

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
Rotary wing dynamics, flapping motion, coupled flap-lag motion. Stability and control, longitudinal dynamics, lateral dynamics, and coupled longitudinal and lateral dynamics.  
PREREQ: AEE 627

## GRADUATE COURSE CATALOG

### **AEE 747 - Hypersonic Gas Dyn**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly

Classification, physical properties of hypersonic flows. Thickness and structure of shock fronts.

Real gas effects, relaxation phenomena.

Compressible viscous boundary layer flows. Shock layer flows. Two-layer Newtonian flow models.

Aerodynamic applications. Hypersonic flow generation, simulation.

PREREQ: MAE 647

### **AEE 995 - Graduate Seminar**

#### **College of Engineering and Computer Science**

0 credit(s)

Crosslisted with: MAE 995

### **AEE 996 - Special Project**

#### **College of Engineering and Computer Science**

0-6 credit(s)

Repeatable

### **AEE 997 - Masters Thesis**

#### **College of Engineering and Computer Science**

0-9 credit(s) At least 1x fall or spring

Repeatable

### **AEE 999 - Dissertation**

#### **College of Engineering and Computer Science**

0-15 credit(s) At least 1x fall or spring

Repeatable

## **Bioengineering**

### **BEN 500 - Selected Topics**

#### **College of Engineering and Computer Science**

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **BEN 541 - Principles of Tissue Engineering**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

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 575 - Process Control**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

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**

#### **College of Engineering and Computer Science**

1-12 credit(s) Irregularly

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.

Repeatable

### **BEN 600 - Selected Topics**

#### **College of Engineering and Computer Science**

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **BEN 601 - Graduate Bioengineering and Chemical Engineering Seminar**

#### **College of Engineering and Computer Science**

0-1 credit(s) Every semester

Crosslisted with: CEN 601

Selected topics in bioengineering. Presentations by internal and external speakers, discussions with students.

Repeatable, 1 credits maximum

### **BEN 602 - Ethical Issues in Engineering and Research**

#### **College of Engineering and Computer Science**

1-3 credit(s) At least 1x fall or spring

Crosslisted with: CEN 602

Explores the application of professional norms to ethical decision making in engineering and scientific research. Includes examination of cases in light of the requirements of the Responsible Conduct of Research.

### **BEN 613 - Readings in Neuroscience**

#### **College of Engineering and Computer Science**

0-3 credit(s) Irregularly

Crosslisted with: BIO 624, CSD 753, NEU 613, PSY 778

A literature-based team-taught course focusing on in depth discussions of classical or recent papers of exceptional import to neuroscience. Students will complete weekly readings assigned by faculty and participate in a 3-hr/wk group facilitated discussion

### **BEN 614 - Interdisciplinary Methods of Neuroscience**

#### **College of Engineering and Computer Science**

0-3 credit(s) Irregularly

Crosslisted with: BIO 625, CSD 754, NEU 614, PSY 779

A practical interdisciplinary survey course whereby neuroscience faculty introduce students to a wide array of methodologies, including molecular, cellular, developmental, systems, behavioral, and cognitive neuroscientific approaches to investigate basic, pre-clinical, translational, and clinical questions to unravel the relationship between brain and behavior.

### **BEN 633 - Drug Delivery**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: CEN 633

Double Numbered with: BEN 433

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 634 - Polymer Physics**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly

Crosslisted with: CEN 634

Exploration into the physical properties of polymers focusing on polymer theoretical physics, characterization of their physical properties, and the importance of their structure-property relationships in various applications.

### **BEN 635 - Physical Cell Biology**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: BIO 635, CEN 635, CHE 635, PHY 635

This interdisciplinary class for science and engineering students provides an introduction to the quantitative description of biological systems and processes. The focus is on the biological and physical aspects of structure and function of cells and their subsystems.

### **BEN 638 - Open Problems in Soft Interfaces**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: BIO 638, CEN 638, CHE 638, PHY 638

In this seminar course on soft and biological materials and interfaces, teams from science and engineering will identify, discuss and assess current articles from the literature. Writing skills

## GRADUATE COURSE CATALOG

related to publishing peer-reviewed research are introduced.

### **BEN 648 - Biofluid Dynamics**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Crosslisted with: MAE 648  
Principles of momentum transfer in bioengineering systems. Flight and swimming in nature including flagellar propulsion. Newtonian and non-Newtonian fluid phenomena, including low-Reynolds-number flow, pulsatile and separated flows. Flow past bifurcations. Respiratory and blood circulatory flows.

### **BEN 658 - Biomedical Imaging**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring  
Double Numbered with: BEN 458  
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 662 - Biofuels, Bioproducts, and Biorefining**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring  
Crosslisted with: CEN 662  
Double Numbered with: BEN 462  
Survey of modern technologies available for the production of transportation fuels from abundant natural resources. Additional work required of graduate students.

### **BEN 664 - Quantitative Physiology**

#### **College of Engineering and Computer Science**

4 credit(s) At least 1x fall or spring  
Double Numbered with: BEN 364  
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 665 - Biomechanics**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring  
Double Numbered with: BEN 465  
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, MAT 485, BEN 664

### **BEN 666 - Advanced Biomechanics**

#### **College of Engineering and Computer Science**

3-4 credit(s) Irregularly  
Double Numbered with: BEN 466  
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 665

### **BEN 668 - Biomaterials & Medical Devices**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring  
Double Numbered with: BEN 468  
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 670 - Experience Credit**

#### **College of Engineering and Computer Science**

1-6 credit(s) Every semester  
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.  
Repeatable

### **BEN 690 - Independent Study**

#### **College of Engineering and Computer Science**

1-6 credit(s) Every semester  
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.  
Repeatable

### **BEN 741 - Biopolymers**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly  
Polymer structure, physical properties, and clinical applications of natural and synthetic biomedical polymers. Polymer synthesis, structural and molecular characterization, material properties, polymer processing, biocompatibility, and polymer degradation will be discussed.  
PREREQ: BEN 668

### **BEN 768 - Surfaces of Biomaterials**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly  
Metallic, ceramic, and polymeric surfaces used in biomaterials. Surface forces, structure, chemistry, electrochemical behavior of surfaces, and corrosion reactions related to material-body

interactions will be discussed and surface-analytical techniques present.

### **BEN 997 - Thesis for the M.S. Degree**

#### **College of Engineering and Computer Science**

1-6 credit(s) Every semester  
Independent investigation on a topic of interest under supervision of a member of the faculty. Repeatable 11 time(s), 12 credits maximum

## **Chemical Engineering**

### **CEN 500 - Selected Topics**

#### **College of Engineering and Computer Science**

1-6 credit(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.  
Repeatable

### **CEN 520 - Radiochemistry, Nuclear Fuel Reprocessing and Nonproliferation**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
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**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
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**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring  
Selected topics in mass and heat and heat transfer. Application of principles of units operations.  
PREREQ: CEN 341

### **CEN 551 - Biochemical Engineering**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring  
Introduction to microbiology, biochemical kinetics. Biochemical-reactor design, including methods

## GRADUATE COURSE CATALOG

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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

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**

#### ***College of Engineering and Computer Science***

4 credit(s) At least 1x fall or spring

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 CEN 587

### **CEN 575 - Process Control**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Selected topics in research and new areas of competence in chemical engineering. Repeatable

### **CEN 600 - Selected Topics**

#### ***College of Engineering and Computer Science***

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **CEN 601 - Graduate Bioengineering and Chemical Engineering Seminar**

#### ***College of Engineering and Computer Science***

0-1 credit(s) Every semester

Crosslisted with: BEN 601

Selected topics in bioengineering. Presentations by internal and external speakers, discussions with students.

Repeatable, 1 credits maximum

### **CEN 602 - Ethical Issues in Engineering and Research**

#### ***College of Engineering and Computer Science***

1-3 credit(s) At least 1x fall or spring

Crosslisted with: BEN 602

Explores the application of professional norms to ethical decision making in engineering and scientific research. Includes examination of cases in light of the requirements of the Responsible Conduct of Research.

### **CEN 633 - Drug Delivery**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: BEN 633

Double Numbered with: CEN 433

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 634 - Polymer Physics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Crosslisted with: BEN 634

Exploration into the physical properties of polymers focusing on polymer theoretical physics, characterization of their physical properties, and the importance of their structure-property relationships in various applications.

### **CEN 635 - Physical Cell Biology**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: BEN 635, BIO 635, CHE 635, PHY 635

This interdisciplinary class for science and engineering students provides an introduction to the quantitative description of biological systems and processes. The focus is on the biological and physical aspects of structure and function of cells and their subsystems.

### **CEN 638 - Open Problems in Soft Interfaces**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: BEN 638, BIO 638, CHE 638, PHY 638

In this seminar course on soft and biological materials and interfaces, teams from science and engineering will identify, discuss and assess current articles from the literature. Writing skills related to publishing peer-reviewed research are introduced.

### **CEN 643 - Fluid Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: MAE 643

Review of undergraduate fluids; kinematics, vorticity; dynamics, stresses, Euler and Navier-

## GRADUATE COURSE CATALOG

Stokes equations; energy, Bernoulli's equation; potential flows; Stokes flows; boundary layers; flow separation; other applications.  
PREREQ: MAE 341 OR CEN 333

### **CEN 651 - Chemical Engineering Thermodynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Classical thermodynamics of phase equilibria. Thermodynamic properties from volumetric data. Intermolecular forces. Fugacities of gas mixtures. Fugacities in liquid mixtures. Excess functions. Theories of solutions. Polymer solutions. Solubilities of gases and solids in liquids. High-pressure vapor-liquid equilibria.

### **CEN 661 - Environmental Chemistry and Analysis**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIE 671  
Double Numbered with: CEN 461  
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 662 - Biofuels, Bioproducts, and Biorefining**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: BEN 662  
Double Numbered with: CEN 462  
Survey of modern technologies available for the production of transportation fuels from abundant natural resources. Additional work required of graduate students.

### **CEN 671 - Chemical Engineering Methods I**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Use of fundamental physical, chemical and mathematical principles involving chemical engineering problems. Problems associated with transport theory and chemical kinetics requiring the solution of partial differential equations using orthogonal function expansions. Duhammel's theorem and other techniques.

### **CEN 672 - Applied Env Microbiology**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIE 672  
Double Numbered with: CEN 472  
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 676 - Optimization Techniques in Chemical Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Optimization methods applied to engineering systems. Linear and quadratic programming. Direct and gradient search procedures. Kuhn-Tucker conditions. Techniques for variational problems.

### **CEN 741 - Transport Phenomena I**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Tensor analysis. Reynold's transport theorem. Constitutive equations for stress. Momentum transport equations. Creeping flow, nonviscous flow, boundary layer flow. Flow through porous media. Turbulence. Energy transport equation. Conduction, natural and forced convection solutions. Boundary layer heat transfer.  
PREREQ: CEN 542, CEN 671

### **CEN 761 - Rheology & Polymer Process**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Introduction to flow phenomena in polymeric fluids; the non-Newtonian rheological behavior of polymer solutions and melts; constitutive relations for the flow properties; applications in polymer processing; characterization of polymer mechanical properties, morphology and structure.  
PREREQ: CEN 741

### **CEN 772 - Chemical Engineering Methods II**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Continuation of CEN 671. Use of integral equations and variational methods in chemical reactor calculations. Solution of nonlinear differential equations using perturbation, weighted residual, and numerical methods.  
PREREQ: CEN 671

### **CEN 786 - Kinetics**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Homogenous reactions: tubular and stirred reactors, axial and radial transport. Residence time distribution. Heterogenous reactions-catalytic: rates, pores, transport, in fixed and fluid beds, non-catalytic reaction and growth of new phases.  
PREREQ: CEN 587, CEN 651, CEN 671

### **CEN 789 - Advanced Topics in Colloidal and Interfacial Phenomena**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Topics include colloidal interactions in dispersions; stability of colloidal systems; adsorption/desorption phenomena; many-body interactions; periodic colloid structures; order/disorder transformations in colloidal fluids; and rheology and transport properties of interacting dispersions.

### **CEN 790 - Advanced Topics in Chemical Engineering**

#### ***College of Engineering and Computer Science***

1-3 credit(s) Upon sufficient interest  
Recent advances in chemical engineering science. Repeatable

### **CEN 890 - Advanced Topics In Chemical Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Recent advances in chemical engineering research, including experimental techniques. Repeatable

### **CEN 997 - Masters Thesis**

#### ***College of Engineering and Computer Science***

0-6 credit(s) Every semester  
Repeatable

## **Civil Engineering**

### **CIE 529 - Risk Anlys in Civ Engin**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Odd academic yr e.g. 2007-8  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Odd academic yr e.g. 2007-8  
Analysis and design of prestressed concrete members for flexure, shear, torsion, and compression. Basic concept of prestressing.



## GRADUATE COURSE CATALOG

Stress computation and prestress loss estimation. Deflection and crack control.  
PREREQ: CIE 331

### **CIE 538 - Dynamics of Structures**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
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**

**College of Engineering and Computer Science**  
3 credit(s) Even Academic Yr e.g. 2004-5  
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**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring  
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 Geofoam**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
Introduction to geofoam 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**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
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**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
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**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
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 Envirn Toxicology**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring  
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**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring  
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**

**College of Engineering and Computer Science**  
3 credit(s) Odd academic yr e.g. 2007-8  
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**

**College of Engineering and Computer Science**  
3 credit(s) Odd academic yr e.g. 2007-8  
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**

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
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**

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
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**

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
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  
Repeatable

### **CIE 571 - Water Quality Modeling**

**College of Engineering and Computer Science**  
3 credit(s) Odd academic yr e.g. 2007-8  
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**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
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**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
Crosslisted with: ECS 588, MAE 588

## GRADUATE COURSE CATALOG

Aerodynamics, performance, control, and electrical aspects wind turbines.

PREREQ: MAE 341

### **CIE 601 - Construction Engineering and Project Management**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Double Numbered with: CIE 401

Overview of various aspects of construction engineering and project management. Construction contracts, resource management, scheduling, equipment, quality control, productivity, construction safety, cash flow concepts, legal and management structures. Additional coursework required of graduate students.

### **CIE 629 - Reliability of Civil Systems**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Probability-based risk assessment. Probability modeling of load and resistance processes. Probability distribution and cumulative density functions. Extreme value problems. First and second order reliability analyses of series and parallel civil engineering systems.

### **CIE 631 - Structural Analysis I**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Classical theories of analysis and the application of theories of elasticity, plasticity, and elastic stability to structures.

### **CIE 632 - Structural Analysis II**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Matrix methods in the analysis of complex structural systems. Structural dynamic analysis of single- and multi-degree-of-freedom systems. PREREQ: CIE 631

### **CIE 633 - Finite Element Analysis**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Fundamentals and techniques of modern finite analytical methods, including the finite element and finite difference methods. Application to elasticity, plate, shell seepage, torsion, and fracture mechanics problems.

### **CIE 634 - Stability Analysis of Structural Systems**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Stability analysis of bars, arches, plates and shells. Stability criteria. Analytical and numerical solutions to stability problems. Effects of geometrical imperfections and material

nonlinearity. Design considerations for stability.

### **CIE 635 - Adv Reinforced Concrct Des**

**College of Engineering and Computer Science**

3 credit(s) Irregularly

Relation of straight line and ultimate theories to the analysis and design of reinforced an prestressed concrete structures.

### **CIE 636 - Plstc Des/Steel Strctures**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Design of steel structures using plasticity theory. Concept of plastic hinge and collapse mechanism. Lower and upper bound theorems. Equilibrium and mechanism methods for the analysis and design of continuous beams and frames.

### **CIE 637 - Adv Soil Mech Fndtns I**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Physiochemical studies of soils land soil behavior. Stress distribution in soil masses. Immediate and time-dependent compression of soils. Settlement analysis. Seepage through foundations and earth structures.

### **CIE 638 - Adv Soil Mech&Foundtns II**

**College of Engineering and Computer Science**

3 credit(s) Odd academic yr e.g. 2007-8

Shear strength of soils. Bearing capacity and slope stability analyses. Earth pressures and analysis of retaining structures. Soil dynamics.

### **CIE 639 - Sustainable Development and Infrastructure Management**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: ECS 636

Introduction to public infrastructure systems. Management of infrastructure systems. Monitoring, planning, design, construction, maintenance/rehabilitation and operation. Emphasis on water, storm water, waste water, transportation, electrical power distribution and telecommunications systems.

### **CIE 641 - Seepage & Earth Dam Desgn**

**College of Engineering and Computer Science**

3 credit(s) Irregularly

Types of earth dams. Method of construction. Case histories. Stability of dams. Seepage-flow nets. Effective stress analysis. Darcy's law. Estimation of flow. Design of filters. Instrumentation. Design of dams for earthquake forces.

PREREQ: CIE 337

### **CIE 642 - Treatment Processes in Environmental Engineering**

**College of Engineering and Computer Science**

3-4 credit(s) At least 1x fall or spring

Double Numbered with: CIE 442

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.

### **CIE 643 - Transportation Engineering**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Double Numbered with: CIE 443

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 648 - Bulding Environmental Modeling and Simulations**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Crosslisted with: MAE 658

Building environmental analysis; contaminant source and sink models; single-zone, multizone, and computational fluid dynamics models. PREREQ: MAE 341 AND MAE 355

### **CIE 649 - Building Materials and Envelope**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Crosslisted with: MAE 659

Understanding of heat, air and moisture transfer effects on building envelope/enclosure through linking material properties, assembly design and hygrothermal performance with structural and mechanical considerations. Introduction to advanced computational tools for building enclosures.

### **CIE 651 - Physical-Chemical Process**

**College of Engineering and Computer Science**

3 credit(s) Even Academic Yr e.g. 2004-5

Principles used in the analysis and design of physical-chemical water/waste-treatment processes.

### **CIE 652 - Biologi Waste Treatment**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Theories and Advanced design concepts for aerobic, anoxic and anaerobic system applications.

## GRADUATE COURSE CATALOG

### **CIE 653 - Applied Aquatic Chemistry**

#### ***College of Engineering and Computer Science***

3 credit(s) Odd academic yr e.g. 2007-8  
Principles of aquatic chemistry applied to the solution of environmental engineering problems. Includes acid-base, carbonate, precipitation-dissolution, coordination, and oxidation-reduction chemistry.  
PREREQ: CIE 471 OR CIE 671

### **CIE 657 - Biogeochemistry**

#### ***College of Engineering and Computer Science***

3 credit(s)  
Double Numbered with: CIE 457  
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.

### **CIE 660 - Seminar Civil Engineering**

#### ***College of Engineering and Computer Science***

0 credit(s) Every semester  
Research report presentations by students and visiting specialists in civil engineering and associated sciences and professions. Required each semester of all M.C.E. candidates.  
Repeatable

### **CIE 662 - Chem/Soil & Natural Srfcs**

#### ***College of Engineering and Computer Science***

3 credit(s) Even Academic Yr e.g. 2004-5  
General principles. Chemical properties of soils, nature of surfaces, soil formation, soil minerals, and mechanisms regulating solute chemistry in soil solutions.

### **CIE 663 - Introduction to Sustainable Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Double Numbered with: CIE 463  
Introduction to principles underlying engineering decisions to improve our quality of life without jeopardizing quality of life for future generations. Application of these principles to qualitative and quantitative engineering problems. Additional coursework required of graduate students.

### **CIE 666 - Design of Concrete Bridges**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Analysis and design of highway concrete bridges. Bridge economics, aesthetics, construction, load distribution, and design using load resistance factor design (LRFD). Analysis of stresses and deformations, and the relation to AASHTO-LRFD Design Specifications.

### **CIE 671 - Environmental Chemistry and Analysis**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CEN 661  
Double Numbered with: CIE 471  
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 672 - Applied Env Microbiology**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CEN 672  
Double Numbered with: CIE 472  
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 673 - Transp Proccs/Env Engrng**

#### ***College of Engineering and Computer Science***

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: CIE 473  
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, CIE 341

### **CIE 674 - Environmental Health Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Double Numbered with: CIE 474  
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.

### **CIE 678 - Rehabilitation of Civil Infrastructure**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Double Numbered with: CIE 478  
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: ECS 325, CIE 332

### **CIE 687 - Environmental Geostatistics**

#### ***College of Engineering and Computer Science***

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: GEO 687  
Statistical analysis of spatial patterns in environmental data. Exploratory data analysis; estimation, modeling, and interpretation of variograms; prediction using driging. Applications in engineering, geography, earth science and ecology. Use of geostatistical software.

### **CIE 690 - Independent Study**

#### ***College of Engineering and Computer Science***

1-6 credit(s) Irregularly  
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. Repeatable

### **CIE 737 - Applied Soil Mechanics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Shallow and deep foundations, buried structures, and earth structures.  
PREREQ: CIE 638

### **CIE 739 - Soil Stabilization**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Principles and practice of stabilization techniques for soil and rock material: chemical, mechanical electrosmosis, chemical and cement grouting, de-watering, heating, and dynamic consolidation.  
PREREQ: CIE 637

### **CIE 740 - Soil Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Earthquakes: magnitude, intensity, design acceleration history, response spectra, soil behavior under dynamic loads, wave propagation, shear modulus and damping dynamic analysis, design of retaining walls, shallow foundations and deep foundation for earthquakes.  
PREREQ: CIE 637

### **CIE 764 - Industrial Hygiene Eng**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Environmental hazards to human health. Toxic properties of industrial dusts, gaseous contaminants, and ionizing radiations. Theories and principles of maximum permissible doses. Control techniques.

## GRADUATE COURSE CATALOG

### **CIE 789 - Special Investigatns/CIE**

#### ***College of Engineering and Computer Science***

3 credit(s) Every semester  
Special investigations and research in civil engineering designed to meet the needs of individual students.

Repeatable

### **CIE 995 - Master's Exit Paper**

#### ***College of Engineering and Computer Science***

0 credit(s) Every semester  
Written paper on a topic in civil or environmental engineering, supervised by a faculty advisor and submitted in accordance with current departmental guidelines.

### **CIE 996 - Master's Project**

#### ***College of Engineering and Computer Science***

3 credit(s) Every semester  
Investigation of a civil engineering or environmental engineering or science problem. A written report is required in accordance with current departmental guidelines. Required of all students electing the non-thesis option for a master's degree.

Repeatable

### **CIE 997 - Masters Thesis**

#### ***College of Engineering and Computer Science***

0-6 credit(s) Every semester  
Research thesis on some phases of engineering to be selected by student and approved by department chair.

Repeatable

### **CIE 999 - Dissertation**

#### ***College of Engineering and Computer Science***

0-15 credit(s) Every semester  
Research Studies directed to the dissertation under supervision of member of Graduate School faculty.

Repeatable

## **Computer and Information Science**

### **CIS 500 - Selected Topics**

#### ***College of Engineering and Computer Science***

1-6 credit(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.

Repeatable

### **CIS 531 - Compiler Construction**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s)  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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++**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
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.

### **CIS 607 - Mathematical Basis for Computing**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CSE 607  
Mathematical logic including predicate calculus, induction, theories with equality relations and groups. Mathematical logic applied to structures like nonnegative integers, tuples, lists, and trees.

### **CIS 612 - Cloud Computing**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CSE 612  
Virtualized data centers, including virtual machine management, power management, and

## GRADUATE COURSE CATALOG

networking; cloud computing applications; and mobile cloud computing.

### **CIS 623 - Structured Programming and Formal Methods**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Reasoning about programs: specification, design, and realization of provably correct programs.

Program and data structures, binding, procedures, recursion.

PREREQ: CIS 607/CSE 607

### **CIS 625 - Computer Graphics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

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. Programming project required.

### **CIS 626 - Theoretical Foundations of Computer Science**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Computability and decidability, first-order logic, lambda calculus systems, program verification, semantics of programming languages, theory of language.

PREREQ: CIS 607

### **CIS 628 - Introduction to Cryptography**

#### ***College of Engineering and Computer Science***

3 credit(s)

Classical and public-key cryptography. Topics include 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 CIS 675) OR (MAT 534 OR MAT 541)

### **CIS 631 - Compiler Design**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Development of the logical design of a compiler: lexical analyzer, parser, symbol table, error routines, code generator, and code optimizer.

Analysis of formal algorithms for each component, description of overall compiler-construction techniques.

### **CIS 632 - Modeling Concurrent Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Formal methods for specifying, modeling, and

analyzing concurrent systems, and mathematical basis for such methods. Automated and semi-automated tools to apply these methods to analyze emergent behavior of computing related applications.

PREREQ: CIS 607/CSE 607

### **CIS 634 - Assurance Foundations**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Crosslisted with: CSE 634

Foundational theory, concepts, and computer-assisted reasoning tools necessary for assurance.

Topics include functional programming, theorem proving, and logic for reasoning about access control, security, and trust.

### **CIS 640 - Topics in Mobile Programming**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Crosslisted with: CSE 640

Double Numbered with: CIS 440

A variety of subjects surveyed or a particular subject in depth. Additional coursework required of graduate students.

Repeatable 2 time(s), 9 credits maximum

### **CIS 643 - Computer Security**

#### ***College of Engineering and Computer Science***

3 credit(s)

Crosslisted with: CSE 643

Operating system security. Unix security. Trusted Computing Base. Authentication. Access control.

Security models. Capability. Sandboxing. Software vulnerabilities. Worms. Viruses. Secure engineering principles. Secure programming. Auditing. Forensics.

### **CIS 644 - Internet Security**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 644

Internet architecture. Security and attacks on TCP/IP, DNS, and BGP protocols. Internet protocol security. Firewall. Intrusion detection. Network traceback. Web security. Encryption. Public Key infrastructure. One-way hash function. Digital signature. Security protocols.

### **CIS 645 - Graph Theory**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Crosslisted with: MAT 645

Fundamentals of graph theory and special topics including networks, matching, connectivity, planarity, and automorphism groups.

PREREQ: MAT 531

### **CIS 646 - Enumeration, Designs, and Matroids**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Crosslisted with: MAT 646

Generating functions, Polya enumeration, set systems, design parameters, finite projective planes, matroids.

PREREQ: MAT 531

### **CIS 651 - Mobile Application Programming**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 651

Double Numbered with: CIS 444

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.

### **CIS 652 - Building Assured Components**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 652

Development of system components with provable functional properties. Students gain hands-on experience walking the virtuous cycle of executable specifications, formal verification, and translation of specifications into a mainstream language.

PREREQ: CIS 634

### **CIS 655 - Computer Architecture**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Computer-architecture characteristics and their effect on the design and performance of programs. Price-performance tradeoffs, instruction set design, memory hierarchies, pipelining, storage systems, selected topics in parallel architectures. Architecture of specified computers.

PREREQ: CIS 341

### **CIS 656 - Concepts in Concurrent Programming**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Introduction to concurrent programming.

Programming-language features for expressing concurrent execution (processes), process communication, and process synchronization; methods of proving properties of concurrent programs, techniques for implementing concurrent systems.

PREREQ: CIS 623

## GRADUATE COURSE CATALOG

### **CIS 657 - Principles of Operating Systems**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring  
Design and implementation of operating systems. Process and memory management, resource scheduling, file system management, I/O and kernel services and structuring. Includes weekly lab using a Unix-like operating system.  
PREREQ: CIS/CSE 486 OR EQUIVALENT

### **CIS 661 - Logic Programming 1**

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
Formal logic as a programming language. Use of theorem prover as interpreter for programming languages, particularly Horn clause systems. Representation of problem transformations of programs. Applications, including natural-language processing, database representation, and query and expert systems; extensions of Horn clause formalisms.

### **CIS 665 - Computer Vision**

**College of Engineering and Computer Science**  
3 credit(s) Odd academic yr e.g. 2007-8  
Image formation, edge detection, filtering, stereo vision, surface orientation. Optical flow, boundary detection, region growing, texture, motion analysis, representation of two- and three-dimensional objects. Knowledge representation issues for computer vision.

### **CIS 666 - Expert Systems**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
Crosslisted with: CSE 683  
Production rules, forward/backward chaining, Rete algorithm, structured objects, introduction to an expert system language/shell, probabilistic inference networks, fuzzy logic, knowledge acquisition, and explanation generation.  
Programming project or term paper required.

### **CIS 667 - Introduction to Artificial Intelligence**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest  
Crosslisted with: CSE 684  
Double Numbered with: CIS 467  
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.

### **CIS 668 - Natural Language Processing**

**College of Engineering and Computer Science**  
3 credit(s) Upon sufficient interest

Crosslisted with: IST 664  
Double Numbered with: CIS 468  
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 671 - Introduction to the Theories of Computation and Complexity**

**College of Engineering and Computer Science**  
3 credit(s)  
Graduate- level survey of regular languages, finite state machines, elementary theory of computation, classification of unsolvable problems, elementary computational complexity theory, NP-completeness, and related notions.  
PREREQ: CIS 607

### **CIS 672 - Mathematical Logic I**

**College of Engineering and Computer Science**  
3 credit(s)  
First order logics and interpretations. Godel-Henkin completeness theorem, Herbrand's Theorem, compactness theorem, and the Lowenheim-Skolem Theorem. Basic model theory with applications to the theory of fields. Categoricity in power.

### **CIS 675 - Design and Analysis of Algorithms**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring  
Asymptotic analysis and recurrences; classical numeric algorithms; advanced data structures; graph algorithms; divide-and-conquer, greedy choice, dynamic programming, and other computational strategies; NP-completeness.  
PREREQ: CIS 607/CSE 607

### **CIS 678 - Quantum Computing**

**College of Engineering and Computer Science**  
3 credit(s)  
Purpose of QC; quantum registers; quantum state transitions; classical vs quantum models of computation; quantum cellular automata and Hilbert Space 12; no-cloning theorem; quantum teleportation; quantum logic.  
PREREQ: CIS 607/CSE 607, MAT 397 OR MAT 331

### **CIS 681 - Software Modeling and Analysis**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring  
Crosslisted with: CSE 681  
Project-based course covering software modeling, architecture, design, and implementation using diagramming, analysis tools, and common sense

engineering methods to analyze performance of concurrent, message-driven systems.

### **CIS 685 - Simulation & Modelling**

**College of Engineering and Computer Science**  
3 credit(s) Irregularly  
Use of the digital computer for simulation systems. Modeling, construction of flowcharts, fixed-time increment and time-status register methods of simulating, simulation languages, generation of random numbers, experimental design, and analysis of simulated data.  
PREREQ: IOR 525, 526, OR MAT 521, MAT 525

### **CIS 686 - Discrete Event Systems**

**College of Engineering and Computer Science**  
3 credit(s)  
A spectrum of discrete event models used to describe and analyze discrete event systems will be covered including automata, Petri nets, Markov chains, and introductions to queuing models and discrete event simulation.  
PREREQ: ECS 525 OR MAT 521 OR ELE 606

### **CIS 687 - Object Oriented Design**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring  
Crosslisted with: CSE 687  
Basic methods of object oriented software design and implementation. Object oriented software engineering methodologies: specification, hierarchical decomposition, reuse and extensibility. Implementation of projects in object oriented programming language and analysis of design case studies.

### **CIS 688 - Internet Programming**

**College of Engineering and Computer Science**  
3 credit(s)  
Crosslisted with: CSE 686  
A laboratory projects course. Programming models on web clients and servers. Topics include: browser and server object models, tagged languages, emphasizing HTML and XML, ASP programming, and database connectivity.

### **CIS 690 - Independent Study**

**College of Engineering and Computer Science**  
1-6 credit(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.  
Repeatable

### **CIS 712 - Data Parallel Computing**

**College of Engineering and Computer Science**  
3 credit(s)  
Languages and algorithms for massively parallel

## GRADUATE COURSE CATALOG

computation on SIMD architectures. Illustrations drawn from applications such as shortest path determination, connected components, N-body problems, graphics, differential equations, simulated annealing, calculation in finite fields. Substantial programming project.  
PREREQ: CIS 623

### **CIS 731 - Artificial Neural Netwks**

**College of Engineering and Computer Science**  
3 credit(s)

Perceptions, capabilities and limitations. Supervised and unsupervised neural learning. Error back propagation and related algorithms. Hopfield model, feature maps, associative memory, simulated annealing, Boltzmann machines, and genetic algorithms. Complexity, capabilities, applications of neural networks.

### **CIS 752 - Wireless Network Security**

**College of Engineering and Computer Science**  
3 credit(s)

Wireless communication technologies, wireless LAN, mobile IP, mobile ad-hoc networks, wireless sensor networks, secure routing, secure locationing, key management, trust management, group communication, energy efficiency.  
COREQ: CIS/CSE 758 OR CIS/CSE 785

### **CIS 767 - Mathematical Theory of Computation**

**College of Engineering and Computer Science**  
3 credit(s)

The classical theory of effective computability, primarily concerned with the existence of computer methods. Topics: Turing machines, computable functions, recursion, unsolvable problems, degrees of unsolvability, applications.  
PREREQ: CIS 521

### **CIS 774 - Principles of Distributed Access Control**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 774  
Specification, verification, and design of secure networks using formal logic. Includes historical access control models, role-based access control, and logics for reasoning about authentication, authorization, audit, delegation, and trust.  
PREREQ: CIS 607/CSE 607

### **CIS 775 - Distributed Objects**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 775  
Design and implement software components using the Component Object Model (COM). Students will develop programs with COM components, ActiveX controls, and distributed

applications.

### **CIS 776 - Design Patterns**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 776  
A seminar course based on the book "Design Patterns." Object oriented design methods emphasizing conceptual understanding rather than software development projects.

### **CIS 778 - Advanced Windows Programming**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 778  
Seminar/projects course including: MFC library; windows architecture Graphics Device Interface; common, ActiveX, and Explorer controls; bitmaps; property sheets; toolbars; and status bars.

### **CIS 784 - Software Engineering Studio**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 784  
Applied software engineering and project management. Students are expected to analyze, plan, design, implement, test, and evaluate original software system to stand alone or be integrated into an existing environment. All work performed in teams.  
PREREQ: CSE 682 OR CSE 687

### **CIS 787 - Analytical Data Mining**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring

Crosslisted with: CSE 787  
Knowledge discovery process, data warehouses, OLAP, data mining inference based on statistics and machine learning, rule generation; emphasis on analytical aspects; applications.  
PREREQ: CIS 675, ELE 606, CSE 607

### **CIS 996 - Master's Project**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring

Analysis and specification of a substantial programming exercise from a precise software definition. Top-down, modular design of algorithms and data structures. Complete and professional documentation of full implementation, including verification and performance analysis.

### **CIS 997 - Masters Thesis**

**College of Engineering and Computer Science**  
1-6 credit(s) At least 1x fall or spring

Repeatable

### **CIS 999 - Dissertation**

**College of Engineering and Computer Science**  
1-15 credit(s) At least 1x fall or spring  
Repeatable

## **Computational Science**

### **CPS 504 - Introduction to C++**

**College of Engineering and Computer Science**  
3 credit(s)

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**

**College of Engineering and Computer Science**  
3 credit(s)

Programming in C: data types, control structures; the preprocessor; arrays and pointers. Substantial programming assignments. For students in computer science.

### **CPS 621 - Introduction to Probability and Statistics**

**College of Engineering and Computer Science**  
4 credit(s) At least 1x fall or spring

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.

### **CPS 640 - Tpcs: Ntwkng&Multimed Appl**

**College of Engineering and Computer Science**  
3 credit(s)

Current topics in networking and multimedia applications. Topics may include advanced networking solutions, performance issues and design of multimedia delivery systems, and integration of distributed multi-media software. Repeatable

### **CPS 681 - Explorations in Computing and Programming**

**College of Engineering and Computer Science**  
3 credit(s) At least 1x fall or spring

A project-focused study in core computing concepts. Implementation and synthesis of the concepts via scripting, programming, and IDEs, focusing on large distributed data. Utilize computing as an "amplifier" for journalism. Basic programming experience recommended.

## GRADUATE COURSE CATALOG

### **CPS 688 - Algorithms for Computational Journalism and Linguistics**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
A hands-on approach to algorithms for practical applications. Collaborative filtering, graphical algorithms, visualization of information, searching and document ranking, and optimizations. Focus on Internet-based programming and database-oriented client-server model.

### **CPS 690 - Independent Study**

#### ***College of Engineering and Computer Science***

1-6 credit(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.  
Repeatable

### **CPS 782 - Capstone Project Course for Computational Journalism**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Jointly taught by computer science and journalism instructors. Students are asked to submit a major project proposal in computational journalism.  
COREQ: CIS 668 OR IST 664

## **Computer Engineering**

### **CSE 561 - Digital Machine Design**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
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**

#### ***College of Engineering and Computer Science***

3 credit(s)

### **CSE 581 - Introduction to Database Management Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
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**

#### ***College of Engineering and Computer Science***

1-4 credit(s) Upon sufficient interest  
Students work on special projects. Instructors present new or special material.  
Repeatable 29 time(s), 30 credits maximum

### **CSE 607 - Mathematical Basis for Computing**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIS 607  
Mathematical logic including predicate calculus, induction, theories with equality relations and groups. Mathematical logic applied to structures like nonnegative integers, tuples, lists, and trees.

### **CSE 612 - Cloud Computing**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIS 612  
Virtualized data centers, including virtual machine management, power management, and networking; cloud computing applications; and mobile cloud computing.  
PREREQ: CSE 458 AND CSE 486

### **CSE 634 - Assurance Foundations**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIS 634  
Foundational theory, concepts, and computer-assisted reasoning tools necessary for assurance. Topics include functional programming, theorem proving, and logic for reasoning about access control, security, and trust.

### **CSE 640 - Topics in Mobile Programming**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Crosslisted with: CIS 640  
Double Numbered with: CSE 440  
A variety of subjects surveyed or a particular subject in depth. Additional coursework required of graduate students.  
Repeatable 2 time(s), 9 credits maximum

### **CSE 643 - Computer Security**

#### ***College of Engineering and Computer Science***

3 credit(s)  
Crosslisted with: CIS 643  
Operating system security. Unix security. Trusted Computing Base. Authentication. Access control. Security models. Capability. Sandboxing. Software vulnerabilities. Worms. Viruses. Secure engineering principles. Secure programming. Auditing. Forensics.

### **CSE 644 - Internet Security**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIS 644  
Internet architecture. Security and attacks on TCP/IP, DNS, and BGP protocols. Internet protocol security. Firewall. Intrusion detection. Network traceback. Web security. Encryption. Public Key infrastructure. One-way hash function. Digital signature. Security protocols.  
PREREQ: CSE 585, CIS 586

### **CSE 651 - Mobile Application Programming**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIS 651  
Double Numbered with: CSE 444  
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 652 - Building Assured Components**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring



## GRADUATE COURSE CATALOG

Crosslisted with: CIS 652

Development of system components with provable functional properties. Students gain hands-on experience walking the virtuous cycle of executable specifications, formal verification, and translation of specifications into a mainstream language.

### **CSE 658 - Data Networks: Design and Performance**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: ELE 658

Data network design principles. Performance, modeling, and analysis of networks. Delay models. Multi-access communications. Routing and flow control algorithms. Familiarity with basics of data networks.

### **CSE 661 - Advanced Computer Architecture**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Advanced computer architecture including discussion of instruction set design (RISC and CISC), virtual memory system design, memory hierarchies, cache memories, pipelining, vector processing, I/O subsystems, co-processors, and multiprocessor architectures. Case studies of current systems.

### **CSE 664 - VLSI Design Methods**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: ELE 664

MOS VLSI technologies. MOS and CMOS digital circuits. CMOS layout, design rules and simulation. Examples of combinational and sequential circuits. Dynamic logic. Regular structures: memories, PLAs. Individual design project required.

### **CSE 665 - Principles and Practices of FPGA-based Design**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Become familiar with Field Programmable Gate Arrays architecture, programming and applications. A hands-on learning experience using commercially available development kits. Use the FPGA platform as a System on Chip in a parallel computing environment.  
PREREQ: CSE 561

### **CSE 671 - Embedded System Design**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Methodologies for systematic design of embedded systems. System specification, architecture modeling, component partitioning, estimation

metrics, hardware software co-design. Embedded computing platforms and programming. ASIC, CPU, and glue logic. Individual project required.

### **CSE 674 - Advanced Data Structures and Algorithms**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Internals of all major data structures. Algorithms for sorting, balancing trees, graph querying, hashing and compression are discussed. Cache effects. Parallel algorithms.

### **CSE 681 - Software Modeling and Analysis**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 681

Project-based course covering software modeling, architecture, design, and implementation using diagramming, analysis tools, and common sense engineering methods to analyze performance of concurrent, message-driven systems.

### **CSE 682 - Software Engineering**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Requirements and specifications including tools such as PSL/PSA, SREM, design techniques; Functional decomposition; data flow; data structure, theoretical issues in testing, testing strategies: path; domain; mutation and error specific, cost and reliability models.

### **CSE 683 - Expert Systems**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Crosslisted with: CIS 666

Production rules, forward/backward chaining, Rete algorithm, structured objects, introduction to an expert system language/shell, probabilistic inference networks, fuzzy logic, knowledge acquisition, and explanation generation. Programming project or term paper required.

### **CSE 684 - Introduction to Artificial Intelligence**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Crosslisted 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.

### **CSE 686 - Internet Programming**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Crosslisted with: CIS 688

A laboratory projects course. Programming models on web clients and servers. Topics include: browser and server object models, tagged languages, emphasizing HTML and XML, ASP programming, and database connectivity.

### **CSE 687 - Object Oriented Design**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 687

Basic methods of object oriented software design and implementation. Object oriented software engineering methodologies: specification, hierarchical decomposition, reuse and extensibility. Implementation of projects in object oriented programming language and analysis of design case studies.

### **CSE 690 - Independent Study**

**College of Engineering and Computer Science**

1-6 credit(s) Irregularly

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. Repeatable

### **CSE 691 - Special Problems in Computer Systems Engineering**

**College of Engineering and Computer Science**

1-4 credit(s) Upon sufficient interest

Topics vary and represent current interests in computer engineering. Repeatable

### **CSE 731 - VLSI Timing Analysis**

**College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Delay modeling and timing analysis of interconnections and gates. Critical path analysis and delay budgeting. Buffer insertion and device sizing. Switch and circuit level simulations. PREREQ: CSE 664

### **CSE 762 - Distributed Computing Systems**

**College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Distributed systems modeling using languages such as ADA and CSP. Issues of concurrency control, deadlocks, synchronization, resource allocation, failure recovery and knowledge representation in distributed operating systems, data bases and AI systems; including case studies.

PREREQ: CSE 585, CSE 661

## GRADUATE COURSE CATALOG

### **CSE 764 - Advanced Topics in Synthesis of VLSI Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Issues in design and synthesis of modern VLSI systems from abstract high-level behavioral specifications: temporal and spatial optimizations, synthesis for low power, reconfigurable computing, (digital/analog and SW/HW) co-design, formal specification and verification.

PREREQ: CSE 561, CSE 664

### **CSE 765 - VLSI Testing and Verification**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Fault modeling and simulation, automatic test pattern generation, design for testability, boundary scan architectures, and built-in self-test. Functional simulation, coverage metrics, event- and assertion-based verification, and formal methods including model checking and logical equivalence checking.

PREREQ: CSE 561, CSE 664

### **CSE 771 - Sequential Machine Theory**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Theoretical aspects and algebraic structure of sequential machines. Characterization of complete and incomplete machines, decomposition, and state assignment problems. Deterministic and nondeterministic finite state machines and regular expressions. Linear machines and machine identification.

### **CSE 772 - Testing of Digital Circuits**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Physical circuit failures and fault models. Test generation algorithms. Fault stimulation and fault coverage. Random pattern testing. Sequential circuit testing. Test application and response processing techniques. Memory, PLA, and function testing. Design for test.

### **CSE 773 - CAD: Formal Design**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

This course teaches the theory, practice, and tools for using higher-order logic as a means for describing, designing, and verifying computer systems.

PREREQ: CSE 561, CSE 607

### **CSE 774 - Principles of Distributed Access Control**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 774

Specification, verification, and design of secure

networks using formal logic. Includes historical access control models, role-based access control, and logics for reasoning about authentication, authorization, audit, delegation, and trust.

PREREQ: CIS 607/CSE 607

### **CSE 775 - Distributed Objects**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 775

Design and implement software components using the Component Object Model (COM). Students will develop programs with COM components, ActiveX controls, and distributed applications.

PREREQ: CSE 681 AND CSE 687

### **CSE 776 - Design Patterns**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 776

A seminar course based on the book "Design Patterns." Object oriented design methods emphasizing conceptual understanding rather than software development projects.

PREREQ: CSE 681 AND CSE 687

### **CSE 778 - Advanced Windows Programming**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 778

Seminar/projects course including: MFC library; windows architecture Graphics Device Interface; common, ActiveX, and Explorer controls; bitmaps; property sheets; toolbars; and status bars.

PREREQ: CSE 681 OR CSE 687

### **CSE 781 - Database Management Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Group discussion of papers in the field. Data and storage structures, interrogation and update, data base creation, architectural alternatives, problem specification languages, and modeling and optimization. Research proposal required.

PREREQ: CSE 581

### **CSE 782 - Models and Metrics in Software Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Need of models and metrics; software science; cyclomatic complexity; and extensions; error analysis; reliability, cost and productivity models.

PREREQ: CSE 682 AND ELE 606

### **CSE 784 - Software Engineering Studio**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 784

Applied software engineering and project management. Students are expected to analyze, plan, design, implement, test, and evaluate original software system to stand alone or be integrated into an existing environment. All work performed in teams.

PREREQ: CSE 681 OR CSE 687

### **CSE 787 - Analytical Data Mining**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Crosslisted with: CIS 787

Knowledge discovery process, data warehouses, OLAP, data mining inference based on statistics and machine learning, rule generation; emphasis on analytical aspects; applications.

PREREQ: CIS 675, ELE 606, CSE 607

### **CSE 788 - Computer-Aided Design for VLSI and Digital Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Computer aids for automatic physical design of digital systems. Algorithms for partitioning, placement, wire routing, layout compaction, etc. Programming competence required.

PREREQ: CSE 664

### **CSE 789 - Computer Aided Design of Digital Systems: Logic Design**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

Computer aids for automatic logic design.

Heuristic algorithms for single and multiple output, two-level and multiple-level logic minimization, logic synthesis, design verification, simulation and formal methods, hardware accelerators.

PREREQ: CSE 561, CSE 607

### **CSE 791 - Special Problems in Computer Systems Engineering**

#### ***College of Engineering and Computer Science***

1-4 credit(s) Upon sufficient interest

Topics vary and represent current interests in computer engineering.

Repeatable 5 time(s), 24 credits maximum

### **CSE 864 - Topics in VLSI Design**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Seminar on the design and analysis of very large scale integrate circuits and systems. Opportunities for chip fabrication and testing.

PREREQ: CSE 664

## GRADUATE COURSE CATALOG

### CSE 890 - Independent Study

#### *College of Engineering and Computer Science*

1-6 credit(s) Upon sufficient interest  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by permission of supervising instructor or instructor and the department.  
Repeatable

### CSE 891 - Special Problems in Computer Systems Engineering

#### *College of Engineering and Computer Science*

1-4 credit(s) Upon sufficient interest  
Work on special projects. Instructor presents new or special material.  
Repeatable

### CSE 995 - Engineer Degree Project

#### *College of Engineering and Computer Science*

0-6 credit(s) Upon sufficient interest  
Independent investigation or original research on engineering problem under faculty supervision.  
Repeatable, 6 credits maximum

### CSE 996 - Master's Project

#### *College of Engineering and Computer Science*

0 credit(s) Upon sufficient interest  
Engineering investigation or analysis and evaluation of a journal paper. Written report in accordance with current departmental guidelines. Required of all students electing the nonthesis option for the master's degree.  
Repeatable

### CSE 997 - Masters Thesis

#### *College of Engineering and Computer Science*

1-6 credit(s) Upon sufficient interest  
Independent investigation on a topic of interest under supervision of a member of the graduate school faculty. Credit to be arranged.  
Repeatable, 6 credits maximum

### CSE 999 - Dissertation

#### *College of Engineering and Computer Science*

1-15 credit(s) Upon sufficient interest  
Research on a doctoral dissertation under the supervision of a member of the graduate school faculty. Credit to be arranged.  
Repeatable 29 time(s)

## Electrical & Computer Engineering

### ECE 756 - Random Processes

#### *College of Engineering and Computer Science*

0 credit(s)

## Engineering and Computer Science

### ECS 511 - Sustainable Manufacturing

#### *College of Engineering and Computer Science*

3 credit(s) Upon sufficient interest  
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

#### *College of Engineering and Computer Science*

3 credit(s) Irregularly  
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

#### *College of Engineering and Computer Science*

3 credit(s) At least 1x fall or spring  
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

#### *College of Engineering and Computer Science*

0 credit(s) Every semester  
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

#### *College of Engineering and Computer Science*

3 credit(s) Upon sufficient interest  
Crosslisted with: CIE 588, MAE 588  
Aerodynamics, performance, control, and electrical aspects wind turbines.  
PREREQ: MAE 341

### ECS 629 - Modeling and Optimization Techniques

#### *College of Engineering and Computer Science*

3 credit(s) Upon sufficient interest  
Introduction to major deterministic and stochastic modeling techniques, including linear programming and its extensions, integer programming, dynamic programming, Markov

chains, queuing theory, simulation, and other modeling techniques.

### ECS 630 - Simulation and Data Analytics

#### *College of Engineering and Computer Science*

3 credit(s) Upon sufficient interest  
Introduction to discrete-event simulation, system dynamics, and agent-based simulation; hybrid simulation modeling, input and output data analysis, tools and techniques needed for practice, uses of simulation for predictive and prescriptive analytics.  
PREREQ: ECS 526

### ECS 636 - Sustainable Development and Infrastructure Management

#### *College of Engineering and Computer Science*

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: CIE 639  
Introduction to public infrastructure systems. Management of infrastructure systems. Monitoring, planning, design, construction, maintenance/rehabilitation and operation. Emphasis on water, storm water, waste water, transportation, electrical power distribution and telecommunications systems.

### ECS 650 - Managing Sustainability: Purpose, Principles, and Practice

#### *College of Engineering and Computer Science*

3 credit(s) At least 1x fall or spring  
Crosslisted with: BUA 650  
Dynamics and interdependence of economic, social, and environmental systems. Sustainable management frameworks, tools, and metrics. Local, national, and international implications. Relevance of technology, ethics, law, and policy. Interdisciplinary emphasis.

### ECS 651 - Strategic Management and the Natural Environment

#### *College of Engineering and Computer Science*

3 credit(s) At least 1x fall or spring  
Crosslisted with: BUA 651  
Sustainability from firm perspective. Regulatory, international, resource, market, and social drivers of environmental strategy. Impact of sustainability-related strategies on competitive advantage and potential liability.  
PREREQ: ECS 650/BUA 650

### ECS 666 - Advanced Course in Engineering I

#### *College of Engineering and Computer Science*

6 credit(s)  
Multidisciplinary course of study to develop engineering leadership skills. Weekly problems on engineering law, engineering mathematics, modeling, control theory, system and signals,

## GRADUATE COURSE CATALOG

thermodynamics, structural analysis, materials.

### **ECS 667 - Advanced Course in Engineering II**

#### **College of Engineering and Computer Science**

6 credit(s)

Continuation of ECS 666. Covers fluid mechanics, environmental engineering, computer hardware and software theories, modeling and simulation, network theory and implementation.

PREREQ: ECS 666

### **ECS 691 - Fundamentals of Research**

#### **College of Engineering and Computer Science**

1 credit(s)

Subjects such as selection of a dissertation topic, state-of-the-art search, research proposal, intellectual property, and academic integrity will be examined within the context of a mini-research project.

### **ECS 759 - Sustainability-Driven Enterprise**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

Crosslisted with: BUA 759

CAS in Sustainable Enterprise capstone.

Sustainable approaches to complex organizational challenges, opportunities: organizational, industry, stakeholder analysis, sustainability objectives, strategies, and metrics. Multidisciplinary team consulting project.

PREREQ: BUA 650/ECS 650 AND BUA 651/ECS 651

## Engineering

### **EGR 670 - Professional Practice**

#### **College of Engineering and Computer Science**

0 credit(s) Every semester

Full-time practical engineering work experience with a participating employer, which is related to the student's field of study, and is of a semester's duration.

Repeatable

### **EGR 770 - Professional Training**

#### **College of Engineering and Computer Science**

0 credit(s) Every semester

Full time practical work experience, with a participating employer, which is related to the student's field of study and is of a semester's duration.

Repeatable

## Electrical Engineering

### **ELE 512 - Linear Control Systems**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

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**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

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**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

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**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

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**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

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**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

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**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly

Principles of design and processing of monolithic and hybrid integrated circuits. Current technology and its scientific basis.

### **ELE 551 - Communication Systems**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

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**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly

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**

#### **College of Engineering and Computer Science**

1-4 credit(s) Upon sufficient interest

Students work on special projects. Instructors present new or special material.

Repeatable

### **ELE 599 - Electrical Engineering Laboratory IV**

#### **College of Engineering and Computer Science**

3 credit(s) At least 1x fall or spring

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

Repeatable

### **ELE 601 - Applications of Complex Function Theory**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest

Theory of functions of a complex variable. Fourier and Laplace transforms. Applications to engineering problems.

## GRADUATE COURSE CATALOG

### **ELE 602 - Boundary Value Problems I**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Partial differential equations in engineering problems. Method of separation of variable. Sturm-Liouville systems and orthogonal functions. Series and integral representations.

### **ELE 603 - Functional Methods of Engineering Analysis**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Linear functional systems from the viewpoint of vector spaces. Function spaces, differential and integral operators, eigenvalues and eigenfunctions, Jordan forms, functions of a matrix and state-space solutions.

### **ELE 606 - Probabilistic Methods in Electrical Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Set-theoretic basis of probability. Probabilistic modeling of practical problems. Random variables in one and several dimensions. Functions of random variables. Moments, characteristic functions, correlation, sampling. Poisson process. Laws of large numbers and central limit theorem.

### **ELE 612 - Modern Control Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
State space representation. State variable feedback design. Controllability, observability, and identifiability. Optimum design and the matrix Riccati equation.

### **ELE 617 - Power Electronics**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Double Numbered with: ELE 417  
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.

### **ELE 618 - Sensors & Measurements**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Double Numbered with: ELE 418  
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.

### **ELE 621 - Electromagnetic Fields**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Development of electromagnetic theory from the basic postulates leading to Maxwell's equations in differential and integral forms. Solution to static, quasi-static, and wave-propagation problems.

### **ELE 623 - Microwave Measurements**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Experimental illustration of fundamentals of microwave measurement: reflection and transmission measurements; characteristics of common microwave components. Manual and automatic network analyzers and their use. Spectrum analysis techniques.

### **ELE 625 - High Frequency Transmission Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Transmission line parameters, transients on lossless lines, time-harmonic excitation of lines, Smith chart, impedance matching techniques, matrix representation of multiport devices, coupled transmission systems, even and odd mode theory, circuit theory of rectangular waveguides.

### **ELE 633 - Discrete and Integrated Analog Electronic Circuits**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Linear and non-linear circuit models of electronic devices as derived from structural and empirical parameters. Anatomy and applications of integrated operational amplifiers; active filters, multipliers, comparators, voltage-controlled oscillators, wave-form generators, phase-locked loops.

### **ELE 635 - Digital Electronic Circuits**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Digital device and circuit technology and trends. Nanoscale semiconductor devices and memories as well as magnetic and optical memories. Semiconductor industry road map. Device fabrication techniques. DA and AD conversion circuits.

### **ELE 642 - Introduction to Solid-State Physics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Crosslisted with: PHY 576  
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

### **ELE 643 - Theory of Semiconductor Devices**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Fundamental theory of semiconductor devices and their linear and nonlinear mathematical and circuit models. Frequency response and switching characteristics of discrete and integrated structures comprising both bipolar and field effect devices.

### **ELE 651 - Digital Communications**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Baseband data transmission. Advanced digital modulation techniques. Optimum receivers. Topics in information theory and coding.  
PREREQ: ELE 551

### **ELE 652 - Digital Audio Signal Processing**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Double Numbered with: ELE 452  
Course combines classroom theory with hands-on lab. Covers digital audio fundamentals, filter-design, DSP architecture, parallel assembly programming, circular buffers, processing music signals. Additional work required of graduate students.

### **ELE 658 - Data Networks: Design and Performance**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CSE 658  
Data network design principles. Performance, modeling, and analysis of networks. Delay models. Multi-access communications. Routing and flow control algorithms. Familiarity with basics of data networks.  
PREREQ: CIS 321 OR MAT 521  
COREQ: ELE 606

### **ELE 659 - Digital Signal Processing I**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Discrete time signals. Z-transform. Discrete Fourier transform. Fast Fourier transform. Finite impulse response filters. Infinite impulse response filters. Effects of finite word length.

### **ELE 664 - VLSI Design Methods**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CSE 664  
MOS VLSI technologies. MOS and CMOS digital

## GRADUATE COURSE CATALOG

circuits. CMOS layout, design rules and simulation. Examples of combinational and sequential circuits. Dynamic logic. Regular structures: memories, PLAs. Individual design project required.

### **ELE 681 - Introduction to Photonic Engineering**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Topics include: geometrical theory; optical diffraction theory; angular spectral propagation theory; Fresnel and Fraunhofer integral solutions; gaussian beam theory; reflection and refraction; mathematics of polarization; lenses and lenslike media; and photons and atoms.

### **ELE 682 - Fiber Optic Communication**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Topics include: 1) network structures; 2) links; 3) full nets; 4) measures of networks; 5) conductivity; 6) transfer rates; 7) present network constraints; 8) new demands on networks; 9) architectures and interconnections; 10) instrumentation for analysis; and 11) control, regulation, and standardization.

### **ELE 683 - Infrared Engineering**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Topics include: 1) review of optical diffraction theory; 2) radiometry; 3) blackbody radiation theory; 4) IR sources; 5) atmospheric IR transmissions; 6) IR optics; 7) IR detectors and noise; 8) IR lasers; 9) passive systems; and 10) active, heterodyne IR radar systems.

### **ELE 685 - Photonic Devices**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Topics include: 1) electro optic detectors; 2) photo diodes; 3) avalanche photo-diodes; 4) multi-quantum well detectors; 5) photo-multipliers; 6) micro-channel plates; 7) multi-quantum well modulators; 8) Mach-Zhender modulators and switches; 9) couplers; 10) wavelength division couplers; and 11) grating devices.

### **ELE 691 - Special Topics in Electrical Engineering**

#### **College of Engineering and Computer Science**

1-4 credit(s) Upon sufficient interest  
Topics vary and represent current interests in electrical engineering.  
Repeatable

### **ELE 702 - Boundary Value Problems II**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Continuation of ELE 602. Green's functions, integral equations, transform methods, and approximation techniques.  
PREREQ: ELE 601, ELE 602

### **ELE 703 - Special Topics in Engineering Mathematics**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Advanced techniques in the analytical solution of engineering problems. Topics may include linear vector spaces, advanced applications of the theory of functions of complex variables, transform methods, variational and perturbation techniques.  
Repeatable

### **ELE 704 - Neural Networks and Fuzzy Logic Applications**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Neural networks and fuzzy logic to develop algorithms and computer programs for engineering and other applications, such as financial, medical, and sociological. Use non-parametric statistics to measure performance.  
PREREQ: ELE 603

### **ELE 712 - Optimal Control Systems**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly  
Performance criteria and static optimization. The Maximum Principle. Optimum regulator problem. Dynamic programming. Gradient methods for dynamic optimization.  
PREREQ: ELE 612

### **ELE 715 - Robot Manipulators I**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly  
Crosslisted with: MEE 715  
Robot manipulators and their defining equations. Transformations, kinematics, dynamics, and motion trajectories. Control considerations, compliance and organization of programming. Includes a hardware and software laboratory.  
PREREQ: ELE 612

### **ELE 721 - Antennas and Antenna Systems**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Characteristics of electromagnetic radiators. Equivalent circuits of antenna elements: dipoles, loops, helices, horns, and other radiators. Phased arrays. Pattern synthesis. Numerical methods. Broadband antennas. Measurement techniques.

PREREQ: ELE 621

### **ELE 722 - Microwave Filters**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly  
General filter structures at microwave frequencies. Prototype filters obtained by network synthesis method. Image parameters. Richards' transformation. Kuroda Identities. Coupled-line equivalent circuits. Design, simulate, build, and test a microwave filter.  
PREREQ: ELE 623

### **ELE 723 - Microwave Transistor Amplifiers**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly  
Two-port network representations, matching networks, power gain equations, stability conditions, simultaneous conjugate match, constant gain, VSWR and noise figure circles, balanced and feedback amplifiers. Design, simulate, build, and test a microwave amplifier.  
PREREQ: ELE 623

### **ELE 724 - Microwave Oscillators**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly  
Matching networks, S-parameters. Oscillation conditions, One-port and two-port Negative-resistance Oscillators, oscillator design using large-signal measurements, DROs, YIG Oscillators, VCOs, and Phase noise. Design, simulate, build, and test a microwave oscillator.  
PREREQ: ELE 623

### **ELE 725 - Electromagnetic Engineering I**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Time varying electromagnetic fields. Field theorems, propagation and reflection of waves, wave guides, resonators, radiation, and diffraction. Applications to antenna theory.  
PREREQ: ELE 621

### **ELE 726 - Computational Methods of Field Theory**

#### **College of Engineering and Computer Science**

3 credit(s) Upon sufficient interest  
Functional analysis, method of moments, and variational methods. Applications to electrostatics, magnetostatics, two-dimensional electromagnetic fields, antennas, scatterers, and apertures.  
PREREQ: ELE 621

### **ELE 728 - Planar Microwave Antennas**

#### **College of Engineering and Computer Science**

3 credit(s) Irregularly  
Review of the fundamentals of antennas. Theory of

## GRADUATE COURSE CATALOG

microstrip antennas, dual and circularly polarized antennas, feeding techniques, mutual coupling, arrays of patches, effect of substrate and the ground plane. Design, simulate, build, and test a planar microwave antenna.

### **ELE 742 - Electronic Materials**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Electronic properties of dielectric, magnetic, and superconducting materials. Application to devices. PREREQ: ELE 621

### **ELE 751 - Wireless Communications**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Cellular communication systems. Mobile radio propagation. Modulation techniques. Equalization, diversity, and channel coding. Link budget analysis. Speech coding. Multiple access techniques. Spread spectrum systems and CDMA. Wireless systems and networking. PREREQ: ELE 606 AND ELE 651

### **ELE 752 - Coding Theory and Its Applications**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Algebra or error correcting codes, finite fields, cyclic codes, BCH codes, Convolutional codes, Viterbi and stack algorithms. Applications to communications and data storage systems. PREREQ: ELE 606 AND ELE 651

### **ELE 753 - Radar Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Radar system requirements and principles of radar detection and parameter estimation. Factors affecting radar range, signal detection in noise, decision criteria. Target identification techniques. Radar antenna characteristics. Time-space-frequency-phase interrelationships. PREREQ: ELE 651

### **ELE 755 - Digital Image Processing**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Two-dimensional signals and systems. Image formation and perception. Representation, coding, filtering, restoration, and enhancement. Feature extraction and scene analysis. Introduction to computer vision. PREREQ: ELE 601, ELE 659

### **ELE 756 - Random Processes**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Stationary and nonstationary random processes. Gaussian process. Narrow-band representation.

Response of linear filters and nonlinear detectors to random processes. Applications to communication problems.

PREREQ: ELE 606

COREQ: ELE 651

### **ELE 757 - Information Theory**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Basic information measures. Source coding. Capacity of discrete channels. Coding theorem for noisy channel. Concepts of error correction codes. Extensions to continuous and wave form channels. PREREQ: ELE 606  
COREQ: ELE 651

### **ELE 758 - Selected Topics in Data Networks**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Topics vary each term. Typical topics: Gigabit networks, network security, ATM networks, and personal communication networks. PREREQ: ELE 658  
Repeatable

### **ELE 759 - Digital Signal Process II**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Spectral analysis with Fast Fourier transform. Advanced filtering algorithms. Multichannel signal processing. Selected topics on DSP applications. PREREQ: ELE 659

### **ELE 781 - Dielectric Waveguides and Fibers**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Topics include: 1) propagating and radiating modes in dielectric waveguides; 2) circular waveguides-fibers; 3) modes in fibers; 4) single mode fibers; 5) Raleigh and Raman effects and losses in fibers; and 6) practical experiments in laboratory. PREREQ: ELE 621 OR ELE 681

### **ELE 784 - Optical Information Processing**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Fourier transforming and imaging properties of lenses. 2-D linear systems. Frequency analysis. 2-D information processing, synthetic aperture radar, planar and volume holography and applications. Bragg diffraction, optical memory and photonics in computing systems. PREREQ: ELE 681

### **ELE 786 - Laser Propagation and Modulation**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Topics include: 1) wave propagation in anisotropic media, 2) index modulation tensors, 3) birefringent optical systems, 4) periodic media, 5) acousto-optics, 6) electro-optic effects, 7) second harmonic generation, 8) phase conjugation, and 9) nonlinear optics. PREREQ: ELE 681

### **ELE 787 - Lasers**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Review of quantum mechanics, review of light propagation theory. Interaction of light and atoms and electrons. Rate equations. Mode locking and Q. switching, gas, solid-state and semiconductor lasers, laboratory experiments/demonstrations. PREREQ: ELE 681

### **ELE 791 - Advanced Topics in Electrical Engineering**

#### ***College of Engineering and Computer Science***

1-4 credit(s) Upon sufficient interest

Topics vary and represent current interests in electrical engineering. Each offering has a graduate-level prerequisite. Repeatable

### **ELE 821 - Special Topics in Electromagnetic Theory**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Advanced and current topics in electromagnetic theory. Topics vary each term. May include: array theory, electromagnetic compatibility, numerical methods, propagation and radiation in ionized media, moving media, and random media. Repeatable

### **ELE 827 - Electromagnetic Engineering II**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Modern methods for solving electromagnetic field problems. Equivalence theorems, Green's function techniques, integral equations, variational solutions and transform solutions. PREREQ: ELE 725

### **ELE 847 - Semiconductor Optoelectronics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Optical and optoelectronic properties of semiconductors. Applications to lasers, lamps, photodetectors, and solar cells.

## GRADUATE COURSE CATALOG

PREREQ: ELE 643

### **ELE 849 - Special Topics in Solid State**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Modern methods for analyzing the quantum normal modes of materials in the solid state and their technological applications. May be repeated for credit with instructor's consent.

### **ELE 851 - Detection and Estimation Theory**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Hypothesis testing and parameter estimation. Series representation of random processes. Detection and estimation of known signals in white and nonwhite Gaussian noise. Detection of signals with unwanted parameters.  
PREREQ: ELE 756

### **ELE 852 - Kalman Filters**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Models for linear systems and stochastic processes, estimation techniques, Kalman filter derivation using innovations and Bayesian approaches, Kalman filter for Gauss-Markov model, Kalman filter design methodology, extended Kalman filters.  
PREREQ: ELE 603, ELE 756

### **ELE 853 - Advanced Topics in Communication Theory**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Typical topics: spread-spectrum techniques, synchronous communications, signal theory, spectral estimation, radar and sonar applications of detection and estimation theory.  
PREREQ: ELE 756  
Repeatable

### **ELE 890 - Independent Study**

#### ***College of Engineering and Computer Science***

1-6 credit(s) At least 1x fall or spring  
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by permission of supervising instructor or instructor and the department.  
Repeatable

### **ELE 995 - Engineer Degree Project**

#### ***College of Engineering and Computer Science***

0-6 credit(s)  
Independent investigation or original research on an engineering problem under supervision of member of the faculty. Credit to be arranged.  
Repeatable, 6 credits maximum

### **ELE 996 - Master's Project**

#### ***College of Engineering and Computer Science***

0 credit(s) Every semester  
An engineering investigation or the analysis and evaluation of a journal paper. A written report is required in accordance with current departmental guidelines. Required of all students electing the nonthesis option for the master's degree.  
Repeatable

### **ELE 997 - Masters Thesis**

#### ***College of Engineering and Computer Science***

1-6 credit(s) At least 1x fall or spring  
Independent investigation on a topic of interest under supervision of a member of the Graduate School faculty. Credits to be arranged.  
Repeatable, 6 credits maximum

### **ELE 999 - Dissertation for the PhD**

#### ***College of Engineering and Computer Science***

1-15 credit(s) At least 1x fall or spring  
Research work on a doctoral dissertation under the supervision of a member of the Graduate School faculty. Credits to be arranged.  
Repeatable, 30 credits maximum

## **Mechanical and Aerospace Engineering**

### **MAE 510 - Nuclear Reactor Design, Operation and Safety**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
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.  
PREREQ: NUC 301 AND MAE 551

### **MAE 536 - Composite Materials**

#### ***College of Engineering and Computer Science***

3 credit(s) Even Academic Yr e.g. 2004-5  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s)  
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**

#### ***College of Engineering and Computer Science***

3 credit(s)  
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**

#### ***College of Engineering and Computer Science***

3 credit(s)  
Basic thermodynamic analysis of refrigeration cycles. Components selection. Environmental issues and recent developments in the refrigeration and the air conditioning industry.  
PREREQ: MAE 251



## GRADUATE COURSE CATALOG

### **MAE 571 - Applications of Computational Fluid Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s)  
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 485

### **MAE 585 - Principles of Turbomachines**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIE 588, ECS 588  
Aerodynamics, performance, control, and electrical aspects wind turbines.  
PREREQ: MAE 341

### **MAE 615 - Instrumentation**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Basic theory of electronics, modulation, recording, and measurement combined with basic fundamentals in mechanical engineering, such as acoustics, vibration, heat transfer, stain, and

turbulence.

### **MAE 621 - Failure Analysis of Composite Materials**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Review of mechanical behavior of composites. Failure predictions for composites based on macroscopic mechanisms. Fatigue and fracture. Damage, delamination and debond growth. Residual strength and life predictions. Damage tolerance and nondestructive inspection.

### **MAE 625 - Fracture Mechanics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Introduction to basic elements: elastic and elastic-plastic crack tip stress and strain fields, stress intensity factor, crack extension form, J integral, fracture toughness, fatigue crack growth, and the applications of fracture mechanics.

### **MAE 626 - Vibration of Mechanical Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Fundamental physical and mathematical aspects of vibration phenomena in linear systems. Theory of transients, eigenvalue problems, vibration isolation and measurement techniques.

### **MAE 627 - Advanced Helicopter Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Mathematics of rotating systems, rotary wing dynamics, and calculation of aerodynamic forces both in rotating and fixed frames.

### **MAE 630 - Advanced Practical Optimization**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Advanced theory and application of numerical optimization. Topics may include: Unconstrained/constrained linear and nonlinear problems; multiobjective, discrete and global optimization; optimization under uncertainty; evolutionary optimization. Knowledge of Linear Algebra and Ordinary Differential Equations required. Matlab used.

### **MAE 635 - Advanced Mechanics of Materials**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Stress analysis. Beam-column analysis by series and variational techniques, beams on elastic foundation, torsion with restrained warping,

deflections due to transverse shear, introductory problems in plates and shells.  
PREREQ: ECS 325

### **MAE 643 - Fluid Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CEN 643  
Review of undergraduate fluids; kinematics, vorticity; dynamics, stresses, Euler and Navier-Stokes equations; energy, Bernoulli's equation; potential flows; Stokes flows; boundary layers; flow separation; other applications.  
PREREQ: MAE 341 OR CEN 333

### **MAE 644 - Applied Fluid Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Fundamental flow phenomena encountered in practical engineering situations. Topics may include: flow separation, turbulent mixing, bluffbody aerodynamics, three dimensional flow, flow control, high-lift devices, cavitation, fan stall, flow-structure interaction.  
PREREQ: MAE 643

### **MAE 645 - Fluid Dynamics Measurements**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Measurement of pressure, density, and velocity in low- and high-speed flows. Hot wire anemometry and laser Doppler anemometry. Flow visualizations and image analysis. Digital data acquisition and time series analysis. Uncertainty estimation. Lecture and laboratory sessions.

### **MAE 647 - Gas Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Equations of motion for compressible perfect fluids. Crocco's equation. Wave equation. Acoustic speed. Unsteady flows. Shock formation. Normal and oblique shocks. Prandtl-Meyer expansion. Wave interactions. Method of characteristics. Supersonic diffuser, nozzle jet flows.

### **MAE 648 - Biofluid Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Crosslisted with: BEN 648  
Principles of momentum transfer in bioengineering systems. Flight and swimming in nature including flagellar propulsion. Newtonian and non-Newtonian fluid phenomena, including low-Reynolds-number flow, pulsatile and separated flows. Flow past bifurcations. Respiratory and blood circulatory flows.

## GRADUATE COURSE CATALOG

### **MAE 651 - Advanced Thermodynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Review of thermodynamic laws and macroscopic coordinates of general systems. Reversibility, equilibrium and exergy. Introduction to statistical thermodynamics.  
PREREQ: MAE 251

### **MAE 655 - Advanced Heat Transfer**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Theory and application of heat transfer by conduction and radiation for both steady and unsteady state conditions. Mathematical, graphical, and numerical methods of solution.

### **MAE 657 - Convective Heat and Mass Transfer**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Fluid properties and transport equations. Introduction to turbulent transport. Laminar and turbulent heat transfer in internal and external flows. Free convection. Heat transfer in high-speed flow. Convective mass transfer. Special topics.  
PREREQ: MAE 643

### **MAE 658 - Building Environmental Modeling and Simulations**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIE 648  
Building environmental analysis; contaminant source and sink models; single-zone, multizone, and computational fluid dynamics models.  
PREREQ: MAE 341 AND MAE 355

### **MAE 659 - Building Materials and Envelope**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Crosslisted with: CIE 649  
Understanding of heat, air and moisture transfer effects on building envelope/enclosure through linking material properties, assembly design and hygrothermal performance with structural and mechanical considerations. Introduction to advanced computational tools for building enclosures.

### **MAE 671 - Numerical Methods in Mechanical Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Derivation and use of numerical methods for polynomial approximation, extraction of roots, evaluation of determinants, eigenvectors and eigenvalues, orthogonal transformations, angles

of orthogonal transformation, robotics, differential equations, mechanism analysis, Fourier representation.

### **MAE 675 - Methods of Analysis in Mechanical Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Methods of analyzing linear mechanical systems based on theorems in linear algebra, tensor calculus, and linear differential equations. Vector spaces, linear transformations, tensor fields, and eigenvalue problems.

### **MAE 683 - Applied Environmental Acoustics and Noise Control**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Double Numbered with: MAE 483  
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.

### **MAE 686 - Advanced Fuel Cell Science and Technology**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
The scientific challenges of fuel cells will be discussed: fundamental electrochemistry, thermodynamics and kinetics of electrode process, with emphasis on fundamental principles of fuel cells, mass transport processes and performance of fuel cells. Department Consent Required.

### **MAE 721 - Theory of Elasticity**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
General theorems governing the mechanics of linear elastic solids. Cartesian tensor analysis. Kinematics of infinitesimal deformations and force transmission. Balance principles and linear elastic constitutive theory. Plane and three-dimensional problems in elastostatics and elastodynamics.

### **MAE 723 - Asymptotic Methods for Engineering Applications**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Introduction including problems in vibrations and fluid mechanics. Regular and singular perturbations; asymptotic matching. Boundary value problems; distinguished limits. Multiple scale expansions, WKB theory.

### **MAE 731 - Bending of Plates and Shells I**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Small-deflection theory of plates. Analysis of variously shaped plates under various loading and support conditions. Membrane theory of shells. Bending theory of cylindrical shells.  
PREREQ: MAE 635

### **MAE 735 - Buckling Problems**

#### ***College of Engineering and Computer Science***

3 credit(s)  
Physical and mathematical aspects of buckling. Analysis of elastic buckling phenomena for columns, beams, arches, rings, plates, and shells under various loading and support conditions. Buckling due to thermal stress, inelastic buckling, creep buckling.  
PREREQ: MAE 635

### **MAE 741 - Fundamentals of Turbulence**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Qualitative description, main parameters and scaling variables; similarity analysis of mixing layers, jet boundary layers, pipe flows; extension to transport and mixing with emphasis on K-E models.  
PREREQ: MAE 643

### **MAE 746 - Viscous Fluids**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Exact solutions of Navier-Stokes equations. Low Reynolds-number flows. Hydrodynamic theory of lubrication. Boundary-layer equations, exact and approximate methods of solution. Compressible viscous flows.  
PREREQ: MAE 643

### **MAE 765 - Combustion Phenomena in Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Reacting gases-equilibrium composition and kinetics. Kinetically and diffusively controlled combustion. Ignition. Flames in premixed gases. Laminar flame speed. Turbulent flames. Detonation Diffusion flames. Applications to combustion equipment.  
PREREQ: MAE 651

### **MAE 771 - Computational Fluid Mechanics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Numerical solutions using finite difference methods and other techniques. Principles of approximations; accuracy considerations.

## GRADUATE COURSE CATALOG

Applications including boundary-layer and potential flow solutions.

### **MAE 785 - Continuum Mechanics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Foundations of the mechanics of deformable bodies. Elements of tensor calculus. Kinematics of deformation and transmission of force. Balance principles. Theory of constitutive equations and an introduction to hyperelastic solids and Stokesian fluids.

### **MAE 849 - Advanced Topics in Fluid Mechanics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Topics dealing with fluid flow, such as theories of turbulence, jets, wakes, cavities, magnetohydrodynamics.

Repeatable 1 time(s), 6 credits maximum

### **MAE 879 - Advanced Topics in Mechanical Design**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Selected topics dealing with problems in mechanical design, such as theory of lubrication and bearings, balancing problems, high-speed mechanisms.

Repeatable 1 time(s), 6 credits maximum

### **MAE 889 - Selected Topics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Selected topics dealing with the theory and design of steam and gas turbines, centrifugal and axial flow compressors.

Repeatable 1 time(s), 6 credits maximum

### **MAE 990 - Independent Study**

#### ***College of Engineering and Computer Science***

1-6 credit(s) Every semester

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.

Repeatable

### **MAE 994 - Capstone Project**

#### ***College of Engineering and Computer Science***

0 credit(s)

Review technical papers or reports in the open literature related to student's field of interest. Students prepare oral presentation to the faculty summarizing the technical content of the document.

### **MAE 995 - Graduate Seminar**

#### ***College of Engineering and Computer Science***

0 credit(s) Every semester

Crosslisted with: AEE 995

### **MAE 997 - Master's Thesis**

#### ***College of Engineering and Computer Science***

1-9 credit(s) Every semester

Repeatable

### **MAE 999 - Dissertation**

#### ***College of Engineering and Computer Science***

1-15 credit(s) Every semester

Repeatable

## **Mechanical Engineering**

### **MEE 524 - Microprocessors in Mechanical and Manufacturing Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

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 485

### **MEE 584 - Noise from Industrial Flow Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

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**

#### ***College of Engineering and Computer Science***

3 credit(s)

### **MEE 637 - Mechanics of Heterogeneous Solids**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Effective elastic moduli of composite materials. Bounds on effective moduli. Classical analysis of laminated plates. Higher order laminated plate theory. Wave propagation. Inelastic and nonlinear effects.

### **MEE 685 - Principles of Turbomachines**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Crosslisted with: AEE 685, MAE 585

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.

### **MEE 715 - Robot Manipulators I**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Crosslisted with: ELE 715

Robot manipulators and their defining equations. Transformations, kinematics, dynamics, and motion trajectories. Control considerations, compliance and organization of programming. Includes a hardware and software laboratory.

### **MEE 725 - Advanced Engineering Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Newton's laws of motion. Motion of a particle; a rigid body. Work and energy. Theorem of virtual displacements. D'Alembert's principle. Generalized coordinates. Lagrange's equations. Hamilton's principle. Small vibrations. Ballistics. Balancing. Gyroscopes.

### **MEE 757 - Heat Exchange Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Heat exchange equipment and systems. Counterflow, parallel flow, and cross flow heat exchangers. Heat pipes and liquid coupled exchange systems. Periodic flow and rotary regenerators. Systems for heat recovery in buildings.

PREREQ: MAE 655

### **MEE 775 - Dynamics of Controls**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Continuation of MEE 725. Analysis of mechanical and hydraulic control systems of linear and nonlinear characteristics. Stability criteria in systems subject to self-induced vibrations.

## GRADUATE COURSE CATALOG

Operational calculus and Laplace transforms for linear systems of one and two degrees of freedom. Multiple controller servomechanisms.  
PREREQ: MEE 725

### **MEE 825 - Theory of Plasticity**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Basic behavior of materials and formulation of laws governing plastic flows. Different inelastic behaviors of metals. Yielding and the yielding loci. Strain hardening laws. Complete stress-strain relations. Total strain theory and incremental strain theory. Plastic potential. Boundary value problems. Variational principles. Plastic anisotropy.  
PREREQ: MAE 721

### **MEE 829 - Advanced Topics in Dynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Selected topics dealing with dynamics of rigid bodies, vibration and stability of linear systems.  
PREREQ: MEE 727

### **MEE 856 - Advanced Topics in Heat Transfer**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Selected topics in heat transfer. Boiling, condensation, melting, ablation, rarified gas flow, liquid metals, cooling of electronic components.  
PREREQ: MAE 655

### **MEE 859 - Advanced Topics in Thermodynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Selected topics in classical and statistical thermodynamics of interest to mechanical and aeronautical engineers.  
PREREQ: MAE 651  
Repeatable 1 time(s), 6 credits maximum

### **MEE 885 - Advanced Topics in Thermal Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Selected topics in theory and design of equipment and plants for power generation, air conditioning, refrigeration, water purification, and other thermal engineering application.  
PREREQ: MAE 655  
Repeatable 1 time(s), 6 credits maximum

### **MEE 895 - Advanced Topics in Mechanics of Deformable Bodies**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Selected topics in theories of elasticity, plasticity, and rheology, such as finite strain theory, elastic and plastic waves, anisotropic bodies, special mathematical techniques.

PREREQ: MAE 721

Repeatable 1 time(s), 6 credits maximum

### **MEE 990 - Independent Study**

#### ***College of Engineering and Computer Science***

1-6 credit(s) Upon sufficient interest  
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.  
Repeatable

### **MEE 996 - Special Projects**

#### ***College of Engineering and Computer Science***

1-6 credit(s) Every semester  
Repeatable

## **Manufacturing Engineering**

### **MFE 534 - Statistical Quality Control**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
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

### **MFE 633 - Enterprise Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Crosslisted with: IST 633  
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  
PREREQ: CSE 581 OR IST 659

### **MFE 634 - Productivity and Quality Engineering**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Measuring, evaluating and improving productivity in conjunction with total quality methods. Multidimensional measures of performance. Quality function deployment, concurrent engineering, loss function; system, parameter and tolerance design using statistically designed experiments. Statistical quality control overview.  
PREREQ: ECS 526

### **MFE 635 - Manufacturing Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Survey of different types of manufacturing systems and design methodologies. Topics include transfer line, flow shops, job shops, manufacturing cells, flexible manufacturing systems, and computer integrated manufacturing systems. Integration of manufacturing components and emerging trends.  
PREREQ: ECS 526

### **MFE 636 - Materials and Processing in Manufacturing**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Properties of metals, polymers, ceramics; mechanics and mechanisms of deformation processing, manufacturing processes. Laboratory demonstrations.

### **MFE 639 - CAD/CAM Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Advanced topics in Computer Aided Design and Solid Modeling, Computer-integrated Manufacturing, Concurrent Engineering, Process Planning, Manufacturing Control, Measurement and Analysis.

## GRADUATE COURSE CATALOG

### **MFE 654 - Production System Design and Control**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring  
Introduction to design, planning, execution, and control of production systems using mathematical, computational, and other modern techniques. Forecasting, inventory control, lean manufacturing, materials requirement planning, enterprise resource planning, and supply chain planning.  
PREREQ: ECS 526

### **MFE 676 - Computer Control of Machines and Processes**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Application of microcomputers, programmable controllers, numerical controls, analog-digital conversion, robotics, software development, laboratory experiments.

### **MFE 692 - Design for Manufacturing**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Major design project which would include initial design definition, analysis/CAD, manufacturability studies, design modification, manufacturing layout and data bases.  
PREREQ: MFE 636

### **MFE 735 - Artificial Intelligence in Manufacturing Systems**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Artificial Intelligence as a tool for modeling, planning, and controlling manufacturing systems. Knowledge representation, inference methods, expert systems, blackboard framework, neural networks, and their application in manufacturing systems. Issues involved in building intelligent manufacturing systems.  
PREREQ: MFE 635

### **MFE 850 - Advanced Topics in Manufacturing**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Selected topics in conventional and non-conventional manufacturing processes, flexible manufacturing cell, automated manufacturing, production planning, quality control.  
Repeatable 1 time(s), 6 credits maximum

### **MFE 997 - Master's Thesis**

#### ***College of Engineering and Computer Science***

0-9 credit(s)  
Repeatable

## **Materials Science**

### **MTS 533 - Introduction to Theory of Materials**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
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**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Diffusion mechanisms, diffusion equations and their methods of solution.

### **MTS 570 - Nondestructive Testing**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Determination of defects in structural materials. Nondestructive inspection methods include noise emission techniques, X-ray radiography, leak detectors, ultrasonics, magnetic and electrical methods.  
Repeatable

### **MTS 581 - X-Ray Diffraction**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
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.

### **MTS 625 - Topics in Solid-State Thermodynamics**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Application of classical and statistical thermodynamic principles to the behavior of solids. Phase equilibria, diffusion, defects, interfaces, use of tabulated data in real problems, elastic, magnetic, and electric systems.

### **MTS 631 - Advanced Physical Metallurgy**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Solid-state processes. Structure of pure metals. Phase diagrams. Solid solutions, eutectic and peritectic reactions. Diffusion, nucleation, and growth phenomena. Transformation processes.

### **MTS 632 - Transformations in the Solid State**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Reactions and transformations in solids. Allotropy, critical phenomena in solid solutions, nucleation, growth, precipitation from supersaturated solid solutions, recovery, recrystallization and growth, eutectoid transformations. Martensite transformations, etc.  
PREREQ: MTS 631

### **MTS 655 - Electron Transport Phenomena in Crystals**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest  
Electron states. Dynamics of electrons. Electron spin. Thermal energy. Interaction of electrons with the lattice and crystal defects. Thermoelectricity. Hall Effect, magneto resistance. Optical properties. Superconductivity.

### **MTS 671 - Mechanical Behavior of Materials**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Mechanical behavior of metallic materials. Effects of stress systems on deformation. Static and dynamic properties of metals and alloys. Plastic deformation. Residual stresses. Stress concentrations. Metal forming.

### **MTS 672 - Dislocation Theory**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Deformation laws on the basis of dislocation theory. Types of dislocations. Stress field of dislocations. Interaction between dislocations. Yield point phenomenon; strain hardening. Age hardening. Fracture initiation and crack propagation.

### **MTS 682 - Electron Diffraction and Electron Microscopy**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Kinematic theory of electron diffraction and electron microscopy. Dynamics theory. Contrast from perfect and imperfect crystals. Specimen preparation and experimental methods.  
PREREQ: MTS 581

### **MTS 684 - Modern Microstructural Techniques**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly  
Crosslisted with: SST 684  
Basic principles, capabilities and applications of various microstructural methods not covered in MTS 581 and MTS 682. Scanning electron microscopy, electron probe microanalysis, X-ray fluorescence, field ion microscopy.  
PREREQ: MTS 581

## GRADUATE COURSE CATALOG

### **MTS 720 - Formation of Thin Solid Films**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Science and engineering of the formation of thin solid films. Vacuum technology, film formation, theories of nucleation and accommodation, growth and structure of single crystal films.

Repeatable

### **MTS 721 - Properties of Thin Solid Films**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Topics chosen principally from: mechanical, piezoelectric, magnetic, electron transport, superconductive, and optical properties.

### **MTS 748 - Theory of Alloys**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

The application of bond theories in prediction of: structure, stability and reactivity of alloy phases, intermetallic compounds, carbides, nitrides, etc. Topics covered include valence bond theory, crystal field theory, Engel-Brewer correlation as well as other periodic classifications of properties which are of value in making the above types of predictions.

### **MTS 756 - Magnetic Phenomena in Crystals**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Orbital magnetic susceptibility, spin paramagnetism, ferro, ferri, antiferromagnetism, exchange interaction, Ising model, domain structure, fine particles, thin films, magnetic anisotropy, reversible and irreversible magnetization processes.

PREREQ: MTS 631

### **MTS 800 - Selected Topics in Mechanics of Materials**

#### ***College of Engineering and Computer Science***

1-6 credit(s) Irregularly

Imperfections in solids, fracture and yielding criteria, fatigue, creep, ultrasonic effects, radiation damage, surface phenomena and related subjects of current interest.

Repeatable

### **MTS 820 - Selected Topics in Materials Science**

#### ***College of Engineering and Computer Science***

1-4 credit(s) At least 1x fall or spring

Recent developments in the field of materials science.

Repeatable

### **MTS 837 - Advanced Problems in the Physics of Metals**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Quantitative treatment of the theory of the properties of metals and alloys.

PREREQ: PHY 662

### **MTS 867 - Theory of Surfaces and Interfaces**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Fundamental theory of the interfaces formed between various combinations of solids, liquids, and gases based on the thermodynamic and electronic models. Phenomena of adsorption, capillarity, catalysis, electronic emissions, double layer effects, and heterojunctions.

### **MTS 890 - Metallurgical Research Techniques**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Topics selected from the following and related areas: high and low temperature research, high vacuum, high pressure experimental stress analysis, quantitative metallography, nondestructive testing, electron microscopy, mass spectrometry, X-ray and electron diffraction.

Repeatable 1 time(s), 6 credits maximum

### **MTS 960 - Advanced Seminar in Materials Science**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

Recent scientific and engineering advances in specific fields of materials science.

Repeatable

### **MTS 997 - Masters Thesis**

#### ***College of Engineering and Computer Science***

1-6 credit(s) Upon sufficient interest

### **MTS 999 - Dissertation**

#### ***College of Engineering and Computer Science***

1-15 credit(s)

## **Nuclear Energy Track**

### **NUC 510 - Nuclear Reactor Design, Operation and Safety**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

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**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

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**

#### ***College of Engineering and Computer Science***

3 credit(s) At least 1x fall or spring

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.

### **NUC 540 - Experiential Studies in Nuclear Technology**

#### ***College of Engineering and Computer Science***

3 credit(s) Upon sufficient interest

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)

## **Solid-State Science and Technology**

### **SST 684 - Modern Microstructural Techniques**

#### ***College of Engineering and Computer Science***

3 credit(s) Irregularly

Crosslisted with: MTS 684

Basic principles, capabilities and applications of various microstructural methods not covered in MTS 581 and MTS 682. Scanning electron microscopy, electron probe microanalysis, X-ray fluorescence, field ion microscopy.

PREREQ: MTS 581

### **SST 820 - Selected Topics in Solid-State Science and Technology**

#### ***College of Engineering and Computer Science***

1-4 credit(s) Upon sufficient interest

Recent developments in the field.

Repeatable

# GRADUATE COURSE CATALOG

## SST 990 - Independent Study

### *College of Engineering and Computer Science*

1-6 credit(s) Every semester  
Exploring a problem or problems in solid-state science. Individual independent study upon plan submitted by student.  
Repeatable

## SST 997 - Masters Thesis

### *College of Engineering and Computer Science*

0-6 credit(s)  
Repeatable

## SST 999 - Dissertation

### *College of Engineering and Computer Science*

1-15 credit(s)  
Repeatable

## College of Engineering and Computer Science Faculty

Riyad S. Aboutaha, Associate Professor  
Ph.D., University of Texas at Austin, 1994  
Structural design, evaluation, and rehabilitation; structural concrete and composites; infrastructure renewal

Jeongmin Ahn, Associate 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, Emeritus Professor  
Ph.D., Syracuse University, 1983  
RF/Microwave devices and circuits, electromagnetic scattering

Hossein Ataei, Professor of Practice  
Ph.D., University of Southern California, 2013  
M.B.A. and Licensed Professional Engineer;  
Structural Engineering and Construction Project Management

Jurgen Babirad, Research Associate Professor  
M.S.A., University of Notre Dame, 1988  
Rehabilitation technology

Rebecca Bader, Associate Professor  
Ph.D. Materials Science, Oregon State University, 2006  
Drug delivery; Molecular biotechnology; Nanotechnology

Thomas Barnard, Edelman Professor of Practice  
Ph.D. Syracuse University, 1989  
Adaptive Processing; Clutter Rejection; Systems Architecture

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, Assistant 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 200  
Heterogeneous catalysis, Kinetics, Reaction engineering, and Alternative resource utilization

Tomislav Bujanovic, Associate Professor  
Ph.D. in Electrical and Computer Engineering, Western Michigan University, 2009  
Distributed energy integration and control in Smart Grid; Dynamic optimization of grid operations; Demand response and ancillary services; Smart home network; Synchrophasor measurement technology; Smart Grid communication; Smart Grid cybersecurity; Medical signal analysis; Motion estimation in time-varying images; Power Engineering;

Katie D. Cadwell, Assistant Professor,  
Undergraduate Chemical Engineering Program Director  
Ph.D. University of Wisconsin, Madison 2007  
Development of engineering faculty attitudes and pedagogy; Development of engineering student professional skills, K-12 engineering outreach

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

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  
Jun Hwan (Brandon) Choi, Assistant Professor  
Ph.D. University of California, Los Angeles, 2014  
Microwave circuits and systems; Antennas and antenna arrays; Periodic structures; Metamaterials

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

Teresa A. Dahlberg, Dean  
Ph.D., North Carolina State University, 1993  
Computer Engineering

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

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

## GRADUATE COURSE CATALOG

- Professor of Civil and Environmental Engineering, Program Director 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
- Sara Eftekharijad Ph.D. Arizona State University, 2012 Power system operations planning; State estimation; Transmission expansion planning
- 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
- Eric B. Finkelstein, Research Assistant Professor of Biomedical & Chemical Engineering & Lab Manager, Syracuse Biomaterials Institute
- Ph.D. Anatomy and Cell Biology, SUNY Upstate Medical University, 2002 Vascular cell biology; Biomaterials, Tissue engineering, Cell-material interactions, Bioreplication, Engineered vascular networks
- Prasanta Ghosh, Professor; Electrical Engineering Program Director Ph.D., Pennsylvania State University, 1986 Microelectronics, solid state 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, Emeritus Professor Ph.D., University of Wisconsin, 1968 Software engineering: data mining applications, radial basis function models
- Jennifer Graham, Professor of Practice Ph.D. Syracuse University, 2012 Electromagnetic wave behavior in complex media; Antenna design and characterization; RF and microwave design; Radar systems engineering
- 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, nerve regeneration, spinal cord injury
- James H. Henderson, Associate Professor, Graduate Bioengineering Program Director Ph.D., Mechanical Engineering, Stanford University, 2004 Biomaterials/Tissue engineering; Mechanobiology; Biomechanics
- John C. Heydweiller, Professor Emeritus Ph.D. Chemical Engineering, Kansas State University 1977
- Ian Hosein, Assistant Professor Ph.D., Materials Science & Engineering, Cornell University, 2009 Sustainable energy, Materials synthesis and processing, Spontaneous process in materials, Device fabrication and measurements
- Robert Irwin, 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, Professor Ph.D., University of Pennsylvania, 1989 Environmental geochemistry, soil chemistry, statistical modeling
- 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, Emeritus 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 Kyoon Lee, Professor Ph.D., Massachusetts Institute of Technology, 1985 Electromagnetic fields and waves, microwave remote sensing, antennas and propagation, waves in complex media



## GRADUATE COURSE CATALOG

- 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, Associate 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
- Lowell Lingo Jr, Adjunct  
Ph.D. Mechanical Engineering, Syracuse University, 2011  
Residential building energy management, Applied mechanics, Computer-aided design, Mechanical engineering technology education
- 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, Adjunct Professor  
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  
Polymer science and engineering; Rheology; Shape memory polymers; Polymeric nanocomposites; Mechanical design; Fluid transport and Polymer processing; Drug delivery
- Kishan G. Mehrotra, Professor and Chair, Dept. of Electrical Engineering and Computer Science  
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, Interim Dean  
Ph.D., State University of New York at Stony Brook, 1988  
Artificial intelligence, neural networks, evolutionary algorithms, optimization, pattern recognition, uncertainty
- Young Bai Moon, 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
- Kent Ogden, Adjunct Associate Professor  
Ph.D., Medical College of Wisconsin, 1999  
Biomedical Imaging
- 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
- 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, Emeritus 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
- Vir V. Phoha, Professor  
Ph.D. Texas Tech University, 1992  
Cyber Security - Cyber offense and defense; Machine Learning; Smart phones and tablets security; Biometrics - network based and standalone
- Peter W. Plumley, Research Associate Professor  
Ph.D., University of California, Santa Cruz, 1984  
Paleomagnetism and Displacement of Tectonic Terranes, Science education, K-12 outreach
- Qinru Qiu, 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
- David E. Quinn, Adjunct Instructor  
B.S., Rochester Institute of Technology, 2008  
Analytical algorithm, Embedded system development, biomedical instrumentation
- Dana Radcliffe, Adjunct Professor  
Ph.D., Syracuse University, 1996  
Ethical issues in engineering and research, Business ethics
- 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
- Philip A. Rice, Professor Emeritus  
Ph.D. Chemical Engineering, University of Michigan, 1963

## GRADUATE COURSE CATALOG

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

Baris Salman, Professor of Practice  
Ph.D. University of Cincinnati  
Construction Project Management and Scheduling, Construction Equipment, Sustainable Infrastructures and Asset Management, Civil Engineering Material, Principles of Transportation Engineering

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; Associate Professor, Biomedical and Chemical Engineering; Associate Director, Syracuse Center of Excellence in Environmental and Energy Systems  
Sc.D., Harvard University, 1989  
Air pollution fundamentals, control and design, hazardous wastes management, green engineering, statistical and experimental methods, energy efficiency, sustainable built environments, indoor environmental quality, health effects, human performance and productivity, innovation and entrepreneurship

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 Emeritus  
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

Sucheta Soundarajan, Assistant Professor  
Ph.D. Cornell University, 2013  
Detecting and characterizing communities in networks; Understanding how community structure contributes to network evolution; Identifying and characterizing classes of networks; Theoretical and axiomatic approaches to understanding networks; Interesting applications of the above in areas such as computational sustainability

Eric F. Spina, Trustee Professor  
Ph.D., Princeton University, 1988  
Fluid dynamics, compressible flows, turbulence

Laura J Steinberg, Professor  
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.

Shelley K. Stevens, Adjunct Assistant Professor  
Ph.D. SUNY Upstate Medical University, 2007  
Tissue Engineering

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, Associate 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, Nuclear engineering

William C. Tetley, Part-Time Instructor

Chi Tien, Distinguished Professor Emeritus  
Ph.D., Northwestern University, 1958

Svetoslava Todorova  
Ph.D., Syracuse University, Professor of Practice Environmental Engineering, Environmental Chemistry, Sustainable Engineering, Water and Wastewater Treatment

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;  
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

## GRADUATE COURSE CATALOG

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

Yanzhi Wang, Assistant Professor  
Ph.D. University of Southern California, 2014  
Control and Optimization of Energy Generation and Energy Storage Systems; Green and Sustainable Computing; Low-Power Circuits/Systems and Power Management; Extremely Low-Power Near-Threshold Computing and Emerging Technologies

David S. Wazenkewitz, Adjunct  
B.S., Syracuse University  
Environmental engineering and solid waste management

Volker Weiss, Professor Emeritus, Mechanical and Aerospace Engineering, Physics;  
Ph.D., Syracuse University, 1957  
Mechanical behavior of solids, materials science and engineering; computer applications

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, Associate Professor

Angela Zachman, Assistant Professor,  
Undergraduate Bioengineering Program Director  
Ph.D., Vanderbilt University, 2014  
Engineering therapeutic scaffolds for peripheral artery disease: Emphasis on proangiogenic and anti-inflammatory regulation.

Reza Zafarani, Assistant Professor  
Ph.D. Arizona State University, 2014  
Big data, mainly in the order of billions, analyzing human behavior at scale using social media, and mining large-scale social media sites

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

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.

As educators, Falk College faculty and staff are focused on students' academic programs and set very high expectations for them in the classroom and in the community. Many attributes make the Falk College unique, offering a valuable college experience, including:

- Service learning is professionally and personally rewarding for students in the Falk College. Most courses embed community engagement elements to provide valuable hands-on experience for students while instilling in them the value of making a difference in the places where they live and work. Some activities students have led include: nutrition education for soldiers at Fort Drum; donation drives to collect food and clothing for the homeless, and; organizing special events that have raised thousands of dollars for community organizations.
- The Falk College believes the study abroad experience is critical for all programs. In addition to semester-long programs, the College regularly adds shorter-term immersion studies that bring students to national and global geographies of significance related to their academic fields of study. The Los Angeles immersion program for sport management students offers opportunities to meet with industry executives and tour venues and facilities. The Merken Roots of Social Work program brings students to New York City each year to explore sites of historical social work significance.

- Students in all Falk College academic programs have the opportunity to perform research working with faculty mentors.
- Students benefit from the Falk College's numerous long-term relationships with national and Central New York-area agencies and businesses by gaining valuable hands-on learning through internships and field placements.
- Members of the Falk College faculty have tremendous connections in their respective fields; consequently, students benefit from these connections through internship/job placement opportunities, one-on-one career guidance, and guest lectures on campus.

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

## Mission and Goals

The Falk College is committed to improving the health and well-being of individuals of all ages, their families, and their communities through scholarship, practice, civic engagement, advocacy, and entrepreneurial leadership within the framework of principles of social justice. The Falk 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 changes the places and people where they live and work.

## Accreditation

The Falk College offers accredited programs in Nutrition Science and Dietetics at the undergraduate level and Nutrition Science at the graduate level accredited by the Academy of Nutrition and Dietetics' Accreditation Council for Education in Nutrition and Dietetics. The MA and Ph.D. programs in Marriage and Family Therapy are accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) and all Social Work programs are fully accredited through the Council on Social Work Education (CSWE).

## Graduate Program Overview

David B. Falk College Of Sport And Human Dynamics

Diane Lyden Murphy, Dean  
315-443-2027

The David B. Falk College of Sport and Human Dynamics is Syracuse University's most service-oriented college, where 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 discipline lines to find new, more effective approaches to important social issues. Master's degree programs are offered in child and family studies, food studies, global health, marriage and family therapy, nutrition science, sport management and social work; while Ph.D. programs are offered in child and family studies and marriage and family therapy.

Students prepare to become professionals who 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. Requirements are flexible in each program of study, allowing students to choose combinations of courses according to their personal and professional interests. Additional University resources allow students to further enhance their studies and professional development.

The integration of theory and practice is at the heart of the college's mission. Through field and clinical placements in a wide variety of settings, students gain valuable hands-on experience that complements their classroom learning and better prepares them for their careers.

Today, graduates of the College hold positions of importance and distinction all over the world in such fields as education, research, child development, dietetics, nutrition, communications, community and social service, family therapy, government, business and industry, among many others.

For more information about Falk College Graduate admissions, please call or visit our admissions office at:

David B. Falk College of Sport and Human Dynamics  
340 White Hall  
Syracuse, New York 13244  
(315) 443-5555  
falk@syr.edu

## Graduate Financial Assistance

Falk College academic programs offer a limited number of graduate assistantships and tuition scholarships. Graduate admissions officers in each graduate program allocate this financial aid based largely on merit. Graduate assistantships in the form of research assistantships and teaching assistantships are awarded on a competitive basis

## GRADUATE COURSE CATALOG

from among applications received by February 1; assistantships are usually not available at any other time of the year. Research assistants are required to assist their sponsoring faculty to perform research. Teaching assistants are required to assist with undergraduate/graduate instruction as well as to work on research projects. Recipients of these assistantships receive a stipend in addition to a tuition scholarship.

Syracuse University fellowships are awarded competitively from applications received by January 1 on an all-University basis. Doctoral fellows receive a stipend, plus a tuition scholarship of 30 credits for the academic year. Fellows devote full time to their studies and are not assigned duties.

To apply for University fellowships or College assistantships, check the proper place on the application for admission.

### Facilities

The Falk College consists of three facilities, the new Falk Complex, Peck Hall, and the Bernice M. Wright laboratory School.

In January 2015, Falk College begun its phased relocation to the new Falk Complex at MacNaughton and White Halls (the former College of Law). The Falk Complex, which includes both MacNaughton and White Halls, is located on the western portion of the Syracuse University campus. The renovated complex includes a centralized Falk Admissions center that offers prospective students the chance to see Falk College in action on a daily basis; an expanded Student Services space conducive to providing programming that helps students be successful; and a New Falk College Career Center with interview rooms for professional interviews and simulations. In addition to administrative and academic program offices and classrooms, the Falk Complex also offers students hands-on experiences in simulated environments like the Nutrition Assessment Lab and Sport Management Technology Center and dedicated study/collaborative space, computer labs and comforts like a café and student lounge.

Falk College's relocation will continue through Spring 2016. Once all moves are complete all Falk undergraduate academic programs will be under one roof for the first time ever, which spells good things for students, faculty and staff. Additionally, all graduate programs, with the exception of Marriage and Family Therapy, will also be housed in the new Falk Complex.

The Marriage and Family Therapy Department is purposefully located in Peck Hall in the Syracuse community at 601 E. Genesee Street, allowing students a unique opportunity for education in real time within and among a diverse and professionally trained mental health work force.

This site includes the Couple and Family Therapy Center, a clinical training and research facility equipped for live and videotaped supervision, which provides MFT services to the surrounding community. The MFT program works cooperatively with a number of well-established local human service agencies that provide training and research opportunities for MFT students.

The Bernice M. Wright (BMW) Child Development Laboratory School is located on Syracuse University's South Campus, Falk College celebrated the grand reopening of the Bernice M. Wright Child Development Lab School on November 30, 2012, showcasing its recently renovated and expanded facilities. Bernice M. Wright embraces inclusion, celebrating cultural and developmental diversity and recognizing the similarities and differences that make the world an exciting place. Through collaboration with community-based service providers, the school enrolls children with varying developmental abilities, adding greatly to the overall classroom experience. The site serves as a teacher training facility and supports research in early childhood education.

### Research Centers & Institutes

#### Aging Studies Institute

Aging Studies Institute is a collaborative initiative of the Maxwell School of Citizenship & Public Affairs and the David B. Falk School of Sport and Human Dynamics. Its mission is to coordinate and promote aging-related research, training, and outreach at Syracuse University. With 40 faculty affiliates from more than a dozen departments, ASI provides multi-disciplinary research and education that is relevant to almost every academic discipline on campus.

#### The Jack Reilly Institute for Early Childhood and Provider Education

Through its training and research efforts, the general aim of the Jack Reilly Institute for Early Childhood and Provider Education is to improve the knowledge base and provide hands-on training for early childhood teachers and providers on childhood safety in home-based and center-based childcare within the context of culturally-relevant, developmentally-appropriate early childhood education practices. Additional information about the Jack Reilly Institute can be found at [http://falk.syr.edu/ChildFamilyStudies/Jack\\_Reilly.aspx](http://falk.syr.edu/ChildFamilyStudies/Jack_Reilly.aspx).

#### Bernice M. Wright Child Development Laboratory School

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.

## Department of Child and Family Studies

Robert P. Moreno, Chair, 315-443-1715  
144 White Hall

### 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. Roonparine

### Graduate

Rachel Razza, Graduate Program Director; 315-443-7377

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.

## GRADUATE COURSE CATALOG

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.

### Master's

#### Child and Family Studies, MA

All students must complete the M.A./M.S. core course requirements. Depending upon their interests, master's students focus their coursework in the specific areas of child development, family studies, or early childhood education. Supplemental coursework may be selected from additional CFS courses and other University departments such as anthropology, psychology, education, sociology, gerontology, social science, nutrition, special education, or women's studies. All students must file a tentative program of study in their second semester. Students transferring courses from another institution must file a program of study prior to completing 12 credits at Syracuse University.

In addition to course work, an M.S. degree requires the completion of a master's thesis. The M.A. requires a master's project (See graduate manual for details).

The concentration in early childhood education focuses on the application of principles derived from child and family studies to educational programs for young children. Students selecting this concentration have an opportunity to participate in preschool programs at the Bernice M. Wright Child Development Laboratory School to develop skills for supervision of preservice or paraprofessional teacher trainees.

For students majoring in child and family studies, career opportunities exist in programs and agencies serving children, youth, and families, and in other community services.

#### Core Courses required for the M.A. degree are:

- **CFS 621 - Statistical Concepts I 3 credit(s)**
- **CFS 631 - Research Methods/Cfs I 3 credit(s)**
- **CFS 637 - Theo, Intrap, Apps/Child Dev 3 credit(s)**
- **CFS 648 - Family Theory: Interp&Applc 3 credit(s)**
- **CFS 667 - Chld&Fam Crss/Cltrl Persp 3 credit(s)**

Suggested courses for each of the four possible areas of concentration are:

#### Child Development

- **CFS 633 - Intrvntn Mdl:Infnt&Pre-Sc 3 credit(s)**
- **CFS 635 - Obs&Assesmt/Infnts&Chldrn 3 credit(s)**
- **CFS 638 - Child Development in the Context of Schooling 3 credit(s)**
- **CFS 645 - The Developing Infant 3 credit(s)**
- **CFS 665 - Lang Dev in Childr & Fam 3 credit(s)**
- **CFS 667 - Chld&Fam Crss/Cltrl Persp 3 credit(s)**
- **CFS 830 - Sem Child Development 3 credit(s)**
- **CFS 835 - Iss & Probs/Chld&Fam Devt 3 credit(s)**

#### Family Studies

- **CFS 557 - Sep & Div:Impct/Chld&Fam 3 credit(s)**
- **CFS 649 - Marital and Cohabiting Roles and Relationships 3 credit(s)**
- **CFS 657 - Cntmp Iss/Human Sexuality 3 credit(s)**
- **CFS 659 - Families and Workplaces 3 credit(s)**
- **CFS 668 - Fam Var:Soc Class&Eth Det 3 credit(s)**
- **CFS 687 - Family Stress and Resilience: Theory and Interpretation 3 credit(s)**
- **CFS 840 - Seminar: Child Development and Family Relations 3 credit(s)**

#### Early Childhood Education

- **CFS 534 - Practcm/Early Childhood Ed 3 credit(s)**
- **CFS 597 - Early Childhood Program Administration 3 credit(s)**
- **CFS 635 - Obs&Assesmt/Infnts&Chldrn 3 credit(s)**
- **CFS 638 - Child Development in the Context of Schooling 3 credit(s)**
- **CFS 645 - The Developing Infant 3 credit(s)**

**credit(s)**

- **CFS 665 - Lang Dev in Childr & Fam 3 credit(s)**

#### Distribution of Credits

Core Requirements 15

Suggested Courses 12 \*

Thesis/Project 3

Total 30

#### Child and Family Studies, MS

All students must complete the M.A./M.S. core course requirements. Depending upon their interests, master's students focus their coursework in the specific areas of child development, family studies, or early childhood education. Supplemental coursework may be selected from additional CFS courses and other University departments such as anthropology, psychology, education, sociology, gerontology, social science, nutrition, special education, or women's studies. All students must file a tentative program of study in their second semester. Students transferring courses from another institution must file a program of study prior to completing 12 credits at Syracuse University.

In addition to course work, an M.S. degree requires the completion of a master's thesis. The M.A. requires a master's project (See graduate manual for details).

The concentration in early childhood education focuses on the application of principles derived from child and family studies to educational programs for young children. Students selecting this concentration have an opportunity to participate in preschool programs at the Bernice M. Wright Child Development Laboratory School to develop skills for supervision of preservice or paraprofessional teacher trainees.

For students majoring in child and family studies, career opportunities exist in programs and agencies serving children, youth, and families, and in other community services.

#### Core Courses required for the M.S. degree are:

- **CFS 621 - Statistical Concepts I 3 credit(s)**
- **CFS 631 - Research Methods/Cfs I 3 credit(s)**

## GRADUATE COURSE CATALOG

- **CFS 637 - Theo,Intrp,Apps/Child Dev 3 credit(s)**
- **CFS 648 - Family Theory:Interp&Applic 3 credit(s)**
- **CFS 667 - Chld&Fam Crss/Cltrl Persp 3 credit(s)**

Suggested courses for each of the four possible areas of concentration are:

### Child Development

- **CFS 633 - Intrvntn Mdl:Infnt&Pre-Sc 3 credit(s)**
- **CFS 635 - Obs&Assesmt/Infnts&Chldrn 3 credit(s)**
- **CFS 638 - Child Development in the Context of Schooling 3 credit(s)**
- **CFS 645 - The Developing Infant 3 credit(s)**
- **CFS 665 - Lang Dev in Childr & Fam 3 credit(s)**
- **CFS 667 - Chld&Fam Crss/Cltrl Persp 3 credit(s)**
- **CFS 830 - Sem Child Development 3 credit(s)**
- **CFS 835 - Iss & Probs/Chld&Fam Devt 3 credit(s)**

### Family Studies

- **CFS 557 - Sep & Div:Impct/Chld&Fam 3 credit(s)**
- **CFS 649 - Marital and Cohabiting Roles and Relationships 3 credit(s)**
- **CFS 657 - Cntmp Iss/Human Sexuality 3 credit(s)**
- **CFS 659 - Families and Workplaces 3 credit(s)**
- **CFS 668 - Fam Var:Soc Class&Eth Det 3 credit(s)**
- **CFS 687 - Family Stress and Resilience: Theory and Interpretation 3 credit(s)**
- **CFS 840 - Seminar: Child Development and Family Relations 3 credit(s)**

### Early Childhood Education

- **CFS 534 - Practcm/Early Childhood Ed 3 credit(s)**
- **CFS 597 - Early Childhood Program**

**Administration 3 credit(s)**

- **CFS 635 - Obs&Assesmt/Infnts&Chldrn 3 credit(s)**
- **CFS 638 - Child Development in the Context of Schooling 3 credit(s)**
- **CFS 645 - The Developing Infant 3 credit(s)**
- **CFS 665 - Lang Dev in Childr & Fam 3 credit(s)**

### Distribution of Credits

Core Requirements 15

Suggested Courses 12 \*

Thesis/Project 3

Total 30

## Doctorate

### Child and Family Studies, PhD

The Child and Family Studies doctoral program is an interdisciplinary degree designed to train students in advanced theory and empirical research in the field of Child and Family Studies. The program prepares students for careers as faculty, research scientists, and administrators in various governmental and nongovernmental agencies. Students enrolled in the doctoral program engage in research activities under the supervision of a faculty mentor. The Ph.D. program consists of 72 credits and the completion of a dissertation.

Core course requirements include:

- **CFS 637 - Theo,Intrp,Apps/Child Dev 3 credit(s)**
- **CFS 648 - Family Theory:Interp&Applic 3 credit(s)**
- **CFS 621 - Statistical Concepts I 3 credit(s)**
- **CFS 622 - Statistical Concepts II 3 credit(s)**
- **CFS 631 - Research Methods/Cfs I 3 credit(s)**
- **CFS 667 - Chld&Fam Crss/Cltrl Persp 3 credit(s)**
- **CFS 732 - Research Methods/CFS II 3**

**credit(s)**

- **CFS 835 - Iss & Probs/Chld&Fam Devt 3 credit(s)**

In addition to completing the core requirements (27 credits)

In addition to completing the core requirements (27 credits), students are required to take additional supporting courses (33 credits) from within or outside the college in areas such as education, psychology, the social sciences, and women's studies. Students should consult with their faculty advisor prior to selecting elective courses. Students may choose courses at the 500 or the 600 level. All students must complete a two-semester sequence in statistics and research methods. Students must also select an additional research methods course (advanced statistics, qualitative research) in preparation for their doctoral research.

Subject to departmental approval, a maximum of up to 30 credits of Masters level coursework (in CFS or related disciplines at Syracuse University or other universities) may be applied to your Ph.D. program as electives. Courses in research methodology, statistics, and major or substantive areas of study within Child and Family Studies or related disciplines are eligible to be considered.

### Comprehensive Examination

After completing required coursework and prior to their dissertation, doctoral students must complete the comprehensive examination. These examinations are intended to advance learning by requiring students to integrate substantive knowledge within the broad field of Child and Family Studies. Students are expected to synthesize, critically analyze, and evaluate the literature in the field and also articulate this scientific information in the written defense examination. Formal acceptance as a Ph.D. candidate is contingent upon successful completion of the written examination. Comprehensive examinations are scheduled twice each year.

### Dissertation

Students are expected to take 12 dissertation credits. The dissertation is a final requirement of the Ph.D. program wherein students are expected to undertake original research that makes a significant contribution to the body of knowledge in child and family studies (students complete 12 dissertation credits). Students are expected to present a dissertation proposal to a committee of three faculty members. Only after approval of the dissertation proposal are students allowed to undertake the proposed research project. Upon completion of the dissertation, an oral defense is

## GRADUATE COURSE CATALOG

scheduled before a dissertation committee. The dissertation must meet additional requirements specified by the department and the Graduate School.

Distribution of Credits:

Core Requirements 27

Electives 33

(including an additional research tool)

Dissertation 12

Total 72

## Marriage and Family Therapy

Thom deLara, Chair, 315-443-9830  
Peck Hall, 601 E. Genesee Street

### Faculty

Deborah Coolhart, Thom deLara, Joseph P. Fanelli, Rashmi Gangamma, Thomas Schur, Linda Stone Fish, Dyane Watson  
Clinic Supervisor Tracey Reichert-Schimpff  
Internship Coordinator Lisa Tedeschi

### Graduate Program

Linda Stone Fish, Graduate Program Director,  
315-443-3024

The Department of Marriage and Family Therapy offers master of arts (M.A.) and doctor of philosophy (Ph.D.) degrees in marriage and family therapy. Students gain a solid knowledge of marriage and family therapy theory and techniques. Students receive extensive hands-on training, both at the Couple and Family Therapy Center, a clinical training and research facility, and at local community sites. The faculty seeks to promote the advancement of the practice and profession of marriage and family therapy through scholarly research, education, training, and clinical practice.

The department also offers a Certificate of Advanced Study (CAS) in Trauma-Informed Practice, which is structured for clinicians, mental health professionals, and practitioners from allied disciplines to expand their knowledge and skills in the field of trauma response and intervention. Trauma-informed practice is based on an understanding of the vulnerabilities or triggers of trauma survivors that traditional service delivery approaches may exacerbate so that these services and programs can be more supportive

and avoid re-traumatization.

## 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 Social Work, MSW and the Marriage and Family Therapy, MA 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 Advanced Standing MSW program), or a 78-credit two-year program (for students admitted to the MSW Advanced 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.

### Facilities

The department is housed with the Couple and Family Therapy Center, a clinical training and research site at Peck Hall, 601 E. Genesee Street, Syracuse. The center is equipped for live and digitally recorded supervision. Individual, group, couple and family therapy is offered to members of the Syracuse community by marriage and family therapy graduate students under the supervision of the clinical faculty who operate from a family systems perspective.

### Master's

## Marriage and Family Therapy, MA

Linda Stone Fish, Graduate Program Director,  
315-443-3024

The M.A. program consists of a 60-credit curriculum that has been accredited since 1972 by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) and is designed to meet academic requirements for clinical membership in the American Association

for Marriage and Family Therapy. Students are mature individuals who have a strong commitment to the family therapy profession and to meeting the mental health needs of underserved populations.

The M.A. program focuses on the family as a system and the cultural and societal frameworks within which couples and families grow and develop. Students are trained as therapists and scholars who challenge themselves by fostering relationships with others who hold various and diverse world views. By working toward the creation of an environment of respect, honesty, and integrity, students and faculty in the program strive to increase cultural sensitivity, heighten awareness of self in relation to others, and generate an understanding of the role played by context in issues presented in therapy.

All students enroll in a clinical practicum and complete 500 hours of supervised clinical practice with individuals, couples, and families. They spend one year training at the Couple and Family Therapy Center. During their second year they have the opportunity to train at a variety of local health and human service agencies.

Enrollment in the marriage and family therapy program is limited due to the intense clinical training students receive; Most admission decisions are made in spring for the following fall; however, spring and summer admissions are available on a limited basis

### Course Requirements for M.A. Program

#### Required Courses - 51 credits

- **MFT 661 - Introduction to Family Therapy Practice 3 credit(s)**
- **MFT 662 - Systems Dynamics in a Group Setting 3 credit(s)**
- **MFT 671 - Introduction to Family Systems 3 credit(s)**
- **MFT 672 - Couple Therapy: Theory and Techniques 3 credit(s)**
- **MFT 681 - Marriage and Family Therapy Ethics and Issues 3 credit(s)**
- **MFT 682 - Marriage and Family Therapy Theory and Techniques 3 credit(s)**
- **MFT 724 - Psychopathology 3 credit(s)**  
or
- **MFT 683 - Assessment in Marriage and Family Therapy 3 credit(s)**
- **MFT 663 - Applied Research in Social Work 3 credit(s)**



## GRADUATE COURSE CATALOG

- **MFT 684 - Family Therapy Perspectives on Cultural Diversity 3 credit(s)**
- **MFT 567 - Sexual Issues for the Helping Professional 3 credit(s)**
- **CFS 637 - Theo,Intrp,Apps/Child Dev 3 credit(s)** or
- **MFT 673 - Child Development Theory and Family Therapy Interventions 3 credit(s)**
- **MFT 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)**
- **MFT 750 - Introduction to Marriage & Family Therapy Practicum 3 credit(s)**
- **MFT 760 - Practicum in Marriage and Family Therapy I 3 credit(s)**
- **MFT 761 - Practicum in Marriage & Family Therapy II 3 credit(s)**
- **MFT 762 - Practicum in Marriage and Family Therapy III 3 credit(s)**
- **MFT 763 - Practicum in Marriage and Family Therapy IV 3 credit(s)**
- **MFT 997 - Master's Thesis or Project 0-6 credit(s)** or
- Comprehensive Exam

### Elective Courses - 9 credits

- **EDU 647 - Statistical Thinking and Applications 3 credit(s)**
- **MFT 641 - Divorce Mediation 3 credit(s)**
- **SWK 626 - Persons in Social Context 3 credit(s)**
- **MFT 764 - Practicum in Marriage and Family Therapy V 1-3 credit(s)** (3 credits required)
- **MFT 673 - Child Development Theory and Family Therapy Interventions 3 credit(s)**

### Doctorate

## Marriage and Family Therapy, PhD

Linda Stone Fish, PhD, Graduate Director, 315-443-3024

The 72 credit doctoral program in Marriage and Family Therapy at Syracuse University seeks to prepare scholars who will advance theory, research, and teaching in the field of marriage and family therapy. Students are prepared primarily for teaching, supervisory, and research

positions in graduate degree-granting institutions, training institutes, and health care settings. The program builds upon a clinical Master's Degree in Marriage and Family Therapy, and is designed to provide students with an understanding of advanced theory in marriage and family therapy with expertise in process and outcome research methodology in marriage and family therapy.

## Accreditation

The Doctoral Program in Marriage and Family Therapy is accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE)

## Admission

A completed master's degree in Marriage and Family Therapy, or the equivalent, is required. GRE's are not required for students who have completed a master's degree. An admissions committee consisting of MFT faculty members will consider requests for admission to the program.

## Doctoral Degree Requirements

The Ph.D. in Marriage and Family Therapy requires 72 credits. Students are allowed to transfer up to 33 credit hours from an M.A. in MFT or equivalent. Additional requirements include 12 credits of advanced theory and practice; 12 credits of advanced research methodology; 3 credits of elective; 3 credits of advanced practicum; and 9 credits of dissertation. Requirements also include a 9-month clinical internship and satisfactory completion of the doctoral qualifying examination and the doctoral dissertation and related oral examination.

## Learning Outcomes:

The doctoral program in Marriage and Family Therapy at Syracuse University prepares students for teaching, supervisory, and research positions in graduate degree-granting institutions, training institutes, and health care settings.

## Transfer credit

Up to 33 credits may be transferred from an accredited master's degree in Marriage and Family Therapy (or its equivalent).

## Part-time study

Students are required to spend a minimum of one year in residence (full-time study).

## Satisfactory progress

Per University Rules and Regulations, 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.

## Degree Requirements

Advanced Theory and Practice  
12 credits

Three courses (9 credits) from the following:

- **MFT 861 - Supervision in Marriage and Family Therapy 3 credit(s)**
- **MFT 862 - Advanced Family Therapy with Children and Adolescents 3 credit(s)**
- **MFT 863 - Advanced Couple Therapy 3 credit(s)**
- **MFT 865 - Advanced Family Therapy Theory 3 credit(s)**
- **MFT 870 - Practicum in Marriage and Family Therapy Supervision 1 credit(s)**
- **MFT 875 - Cultural Diversity: Family Theory and Therapy 3 credit(s)**
- **MFT 960 - Internship in Marriage and Family Therapy 0 credit(s)**

Plus 1 course (3 credits) from the following

- **MFT 772 - Divorce and Remarriage: Family Theory and Therapy 3 credit(s)**
- **MFT 773 - Family Violence: Theory and Therapy 3 credit(s)**
- **MFT 774 - Parenting and Family Enrichment: Programs and Research 3 credit(s)**
- **MFT 776 - Dysfunctional Families: Theory and Therapy 3 credit(s)**
- **MFT 777 - Family Perspectives on Gender Roles and Socialization: Theory & Therapy 3 credit(s)**
- **MFT 778 - Loss Across the Life Cycle: Family Theory and Therapy 3 credit(s)**
- **MFT 779 - Sexual Identity and Family Therapy 3 credit(s)**
- **MFT 864 - Family Systems and Family Health 3 credit(s)**

### Advanced Research Methodology 12 credits

- **CFS 622 - Statistical Concepts II 3 credit(s)**
- **CFS 732 - Research Methods/CFS II 3 credit(s)**
- **MFT 882 - Assessment and Research Methods in Marriage and Family Therapy 3 credit(s)**
- **MFT 885 - Qualitative Research Methods in Family Therapy 3 credit(s)** (must take prior to, or concurrently with MFT 882)

### Electives 3 Credits

### Advanced Practicum 3 credits total

- **MFT 860 - Advanced Family Therapy Practicum 1 credit(s)**

### Masters Courses (Transferred) (Maximum) 33 credits

### Internship

(1,000 Hours of client contact)

- **MFT 960 - Internship in Marriage and Family Therapy 0 credit(s)**

### Dissertation 9 Credits

- **MFT 999 - Dissertation 1-12 credit(s)** (9 credits required)

Total credits required: 72 credits

### Combined Degree

## Social Work and Marriage and Family Therapy Dual Degree, MA/MSW

### Contact:

Carrie J. Smith, Associate Professor, Director  
School of Social Work cjsmith@syr.edu 315-443-  
5562

Thom deLara, Associate Professor, Department  
Chair, Marriage and Family Therapy tdelara@syr.  
edu 315-443-9830

### Faculty:

For full faculty listings please visit:

MSW program: <http://falk.syr.edu/Faculty/Department.aspx#SWK>

MFT program: <http://falk.syr.edu/Faculty/Department.aspx#MFT>

### Program Description:

This interdisciplinary program allows the student 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.

### Accreditation:

The MSW program is accredited by the Council on Social Work Education.

The MFT program is accredited by the Commission on Accreditation for Marriage and Family Therapy Education.

### Admission:

Applicants must have earned a bachelor's degree from an accredited institution, with a minimum cumulative GPA of 3.0 in undergraduate coursework. Application requirements include transcripts, three letters of recommendation, and a personal statement. Admission requirement for this program include TOEFL or IELTS scores for international applicants.

### Financial Support:

Merit-based financial support is awarded based on a student's admission application. These awards are highly competitive and are available to both U.S. and international full-time students. Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs).

### Facilities:

The Social Work department is located at 244 White Hall on the Syracuse University campus and provides faculty and student work space. In addition, the Social Work department offers

field placement at any of the 200 social welfare, human services and health agencies from 27 counties in upstate New York.

The Marriage and Family Therapy department located at Peck Hall, 601 E. Genesee Street near main campus houses a newly renovated, state of the art, clinical training facility with 14 counseling rooms, observation rooms, and a digital recording system.

### Transfer Credit:

The demands of this dual degree program may restrict your ability to transfer in courses from another MSW degree program. Please consult with the Social Work department directly to determine transfer credit eligibility.

### Satisfactory Progress:

GPA of 3.0 or better & Pass Field Placement

### Degree(s):

Students who complete all requirements will receive the dual Master in Social Work and a Master of Arts in Marriage and Family Therapy.

Students are required to complete all degree requirements as listed in the graduate course catalog for the Master of Social Work, and all degree requirements as listed in the graduate course catalog for the Master of Arts in Marriage and Family Therapy. Students will be required to complete the entire dual degree program before either degree is awarded.

Total Credits: 96

### Certificate of Advanced Study

### Trauma-Informed Practice, CAS

### Contact:

Linda Stone Fish, PhD, flstone@syr.edu Graduate  
Director  
Dept. of Marriage and Family Therapy  
Peck Hall, 601 East Genesee Street  
Syracuse, NY 13202  
1-315-443-3024

### Faculty:

Linda Stone Fish, Thom deLara, Dessa Bergen-  
Cico, Deborah Coolhart, Tracey Reichert Schimpff,  
Tracey Marchese, Pamela Johnson

## GRADUATE COURSE CATALOG

### Description:

The Certificate of Advanced Studies in Trauma-informed Practice is structured for clinicians, mental health professionals, and practitioners from allied disciplines who intend to expand their knowledge and skills in the field of trauma response and intervention. The core courses, and elective options, address the theoretical foundations of trauma, as well as evidenced-based trauma-informed practice approaches and techniques.

Please note, completion of the Advanced Certificate in Trauma-informed Practice program alone does not qualify an individual for licensure as a social worker, marriage and family therapist, or any other profession licensed under Title VIII of the Education Law, nor does it authorize a certificate holder to engage in those scope-restricted professions.

### Admission:

A completed bachelor's degree, minimum GPA of 3.4, or enrollment in or completion of a master's degree in an allied field is required. GRE's are not required.

**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.

### Requirements:

The curriculum includes three required 3-credit courses (to be chosen from a group of four courses, each of which will be offered annually), and two elective 3-credit courses (to be chosen from a list of courses that include trauma-informed content).

### Required Courses (choose 3 courses from this group):

- **MFT 603 - Introduction to Trauma Studies 3 credit(s)**
- **MFT 643 - Family Therapy with Complex Trauma 3 credit(s)**
- **SWK 739 - Applied Neuroscience in the Human Services 3 credit(s)**
- **SWK 740 - Treatment of Complex Trauma with Individuals 3 credit(s)**

### Elective Courses (choose 2 courses from the elective course list):

(A course from the required list may be chosen to fulfill one of the elective requirements):

- **SWK 742 - Violence, Bullying, & Trauma: Clinical Perspectives 3 credit(s)**
- **SWK 738 - Core Concepts in Trauma Treatment for Children and Adolescents 3 credit(s)**
- **MFT 686 - Play Therapy with Children and Families 3 credit(s)**
- **MFT 642 - Therapy with LGBTQ Couples and Families 3 credit(s)**
- **HTW 605 - Cognitive Behavioral Approaches to Stress Reduction 3 credit(s)**
- **HTW 618 - Alcohol, Other Drugs, Sex and Gambling: Dynamics of Addiction 3 credit(s)**
- **MFT 724 - Psychopathology 3 credit(s)**

Total Credits: 15

### Certificate Awarded:

Certificate of Advanced Study

### Transfer Credit:

Per University Rules and Regulations, 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.

### Satisfactory Progress:

Per University Rules and Regulations, 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.

## 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 graduate academic programs in: Addiction Studies, MA; Global Health, MS; Food Studies, MS; Nutrition Science, MA, Nutrition Science, MS; Addiction Studies, CAS; Dietetic Internship Program, CAS; and Global Health, CAS.

Students' academic programs move outside of the classroom to gain hands-on experiences in their chosen field(s) of concentration. Faculty and students in the Department 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.

## Graduate Programs

### Food Studies

Anne Bellows, Graduate Program Director, 443-4228  
304 Lyman Hall

### Faculty

Tim Barr, Anne Bellows, Mary Ann P. Kiernan, Laura-Anne Minkoff-Zern, Rick Welsh, Evan Weissman

The Masters of Science in Food Studies is a 36 credit hour, graduate program providing students with a foundation in the political economy of food systems, including human rights, food governance, and food justice and health. The M.S. degree program trains students for work in the fast-changing landscape of international food policy as well as national and local food governance systems, and additionally, prepares interested candidates for advanced graduate pursuits.

## Nutrition Science and Dietetics

Sudha Raj, Graduate Program Director, 315-443-5573  
440 Sims 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

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

## GRADUATE COURSE CATALOG

provide special learning and research experiences for students according to their background and interests.

### Public Health

Brooks Gump, Graduate Program Director, 315-443-2208,  
344 White Hall

### Faculty

Dessa Bergen-Cico, James Byrne, Luvenia W. Cowart, Brooks Gump, Sandra D. Lane, Eileen Lantier, David Larsen, Katherine McDonald, Mary Ann Middlemiss, Lutchnie Narine, Lisa Olson-Gugerty, Maureen Thompson

The Public Health program offers advanced certificates in Addictions Studies and Global Health, a master of arts in Addiction Studies and a master of science in Global Health.

The 24 credit hour Addiction Studies, CAS is available only to Syracuse University students dually enrolled in the following programs:

- M.S. Clinical Mental Health Counseling (School of Education)
- Ph.D. Counseling and Counselor Education (School of Education)
- M.A. Marriage and Family Therapy (Falk College)
- M.S.W. Social Work (Falk College)

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 Global Health, CAS 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 Addiction Studies, MA provides students with opportunities to develop broad competencies in preparation for employment in a number of fields addressing alcohol, other drugs and behavioral (process) addictions. Students will be exposed to a public health perspective of substance use and addictive behaviors specializing in prevention and counseling.

The 36 credit graduate program in Global Health, MS 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.

### Master's

### Addiction Studies, MA

### Contact:

Brooks B. Gump, PhD, MPH, Falk Family Endowed Professor of Public Health and Director of Graduate Programs in Public Health; Department of Public Health, Food Studies, and Nutrition  
344 White Hall  
Ph: 315-443-2208  
Email: bbgump@syr.edu

### Core Faculty:

Dessa Bergen-Cico, PhD, CHES, CAS James Byrne, JD, CASAC, Brooks B. Gump, PhD, MPH, Susan Scholl, MS, CHES, CASAC

### Description:

The 36 credit Master of Arts in Addiction Studies provides students with opportunities to develop broad competencies in preparation for employment in a number of fields addressing alcohol, other drugs and behavioral (process) addictions. Students will be exposed to a public health perspective of substance use and addictive behaviors specializing in prevention and counseling. Requirements include: 1) 25 credits of Theoretical Foundations, 2) 8 credits of Research and Assessment, 3) 3 credits of Elective, 4) Qualifying Examination and 5) a Master's Paper.

Upon completion of the program, 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 Alcohol and Substance Abuse Counselor (CASAC); and be

eligible to sit for the CPP/CPS certification exam. Full certification as a CPP or CASAC requires supervised post-graduate work experience before full certification is awarded by OASAS. Students seeking credentialing in states other than New York must contact the specific credentialing office for that state.

### Admission:

Requirements for this program include: undergraduate degree with a minimum cumulative 3.0 GPA, minimum score of 100 on the TOEFL (for international applications), undergraduate transcripts, three letters of recommendation, a resume and personal statement, and GRE scores. However, GRE's are not required for students who have already completed a different advanced degree (e.g., MS, PhD, MD). An admissions committee consisting of full time faculty members who teach in the MA Addictions Studies program will consider requests for admission.

### Transfer Credit:

Students may transfer up to 9 credits. Substituted/transferred course work should cover material equivalent to that which is covered in the relevant required course. Substitution/transfer requests will need to be approved by the graduate committee for public health programs. All students are expected to file a tentative program of study in their second semester. Students transferring courses from another institution must file a program of study prior to completing 12 credits at Syracuse University.

### Part-time Study:

Program may be pursued on a part-time basis with department approval.

### Satisfactory Progress:

Certification for an advanced degree at Syracuse University requires a minimum average of 3.0 for work comprising the program for the degree and a 2.8 average for all credits earned.

### Requirements: 36 Total Credits

### Theoretical Foundations: 25 Credits

- **HTW 624 - Prevention in Addiction Services 4 credit(s)**
- **HTW 605 - Cognitive Behavioral Approaches to Stress Reduction 3 credit(s)**
- **HTW 607 - Motivational Interviewing for**

## GRADUATE COURSE CATALOG

### Behavioral Change 3 credit(s)

- **HTW 608 - Addictions in Cultural Context 3 credit(s)** or
- **HTW 612 - Global Perspectives in Alcohol & Other Drug Policies 3 credit(s)**
- **HTW 609 - The Impact of Addictions on Families and Relationships 3 credit(s)**
- **HTW 610 - Addictions Treatment Planning and Referral 3 credit(s)**
- **HTW 618 - Alcohol, Other Drugs, Sex and Gambling: Dynamics of Addiction 3 credit(s)**
- **HTW 636 - Ethics in Addiction Services 3 credit(s)**

### Research and Assessment: 8 Credits

- **HTW 606 - Clinical Evaluation and Assessment of Addictions 3 credit(s)**
- **HTW 621 - Research Methods in Public Health 3 credit(s)**
- **HTW 622 - Research Proposal Development 2 credit(s)**

### Elective: 3 Credits

Selected in consultation with academic adviser.

### Program Requirements:

Qualifying Examination  
Master's Paper

## Food Studies, MS

### Contact:

Anne Bellows, Prof of Food Studies  
Food Studies Graduate Program Director  
304D Lyman Hall  
Department of Public Health, Food Studies and Nutrition  
315-443-4228  
acbellow@syr.edu

### Core Faculty:

Anne Bellows, Ph.D., Rick Welsh, Ph.D., Evan Weissman, Ph.D., Laura-Anne Minkoff-Zern, Ph.D.

### Description:

The 36 hour M.S. in Food Studies offers graduate students an interdisciplinary and holistic approach

to food systems, food economies, and sustainable livelihoods and environments that influence public health and nutrition outcomes and overall well-being. The core focuses on multi-scale interpretations of the political economy of the food system, human rights to adequate food, as well as transnational food movements and related public policy. The MS in Food Studies complements student interest in other areas including economic and social development, public health, agriculture and food policy, civil rights, effective organizational communication strategies, and entrepreneurship, among others. Upon completion of the program, graduates will be prepared to bring substantive knowledge and analytical skills to engage in employment at food-oriented organizations of all types or continue with graduate or professional studies.

### Admission:

A Bachelor's Degree from an accredited college or university with a graduating GPA of 3.0 or higher, minimum score of 100 on the TOEFL (for international applications), undergraduate transcripts, three letters of recommendation, a resume and personal statement, and GRE scores. However, GRE's are not required for students who have already completed a different advanced degree (e.g. MS, PhD, JD). Additionally, students must have taken an undergraduate class in social science research methods and an upper division food studies class or take these courses at Syracuse University for no graduate credit. Students from broad inclusive fields of undergraduate study and work experience will be considered for admission. Exceptions to the university requirements will be reviewed on a case-by-case basis by the Food Studies Graduate Admissions Committee, to be made up of three members of the Food Studies Program.

### Transfer Credit:

Students may transfer up to 30% of credits. Substituted/transferred course work should cover material equivalent to that which is covered in the relevant required course. Substitution/transfer requests will need to be approved by the graduate committee for Food Studies programs. All students are expected to file a tentative program of study in their second semester. Students transferring courses from another institution must file a program of study prior to completing 12 credits at Syracuse University.

### Satisfactory Progress:

Certification for an advanced degree at Syracuse University requires a minimum average of 3.0 for work comprising the program for the degree and a 2.8 average for all credits earned.

### Core Courses:

15 Credits Required

- **FST 601 - Seminar in Food Studies and Systems 3 credit(s)**
- **FST 603 - The Human Right to Adequate Food and Nutrition 3 credit(s)**
- **FST 604 - Food Studies Research Methods 3 credit(s)**
- **FST 702 - Political Economy of Food 3 credit(s)**
- **FST 703 - Transnational Food, Health and the Environment 3 credit(s)**

### Final Project:

(6 credits maximum for Thesis; 3 credits for Practicum)

- **FST 797 - Practicum in Food Studies and Systems 3 credit(s)**
- **FST 997 - Masters Thesis 1-6 credit(s)**

### Research and Evaluation Methods

3 Credits

*To be selected in consultation with faculty advisor*

- **HTW 621 - Research Methods in Public Health 3 credit(s)**
- **HTW 668 - Applied Epidemiology in Global Health 3 credit(s)**
- **CFS 621 - Statistical Concepts I 3 credit(s)**
- **SWK 775 - Program Evaluation 3 credit(s)** or
- **HTW 661 - Development and Evaluation of Global Health Programs 3 credit(s)**
- **SOC 614 - Introduction to Qualitative Research 3 credit(s)**
- **GEO 685 - Community Geography 3 credit(s)**

### Directed Electives:

12-15 credits, depending on Final Project credits\*

- **FST 621 - Morality of a Meal: Food Ethics 3 credit(s)**
- **FST 706 - Gender, Food, Rights 3 credit(s)**
- **HTW 669 - Disability, Food, and Health 3 credit(s)**

## GRADUATE COURSE CATALOG

- **HTW 706 - Environmental Epidemiology 3 credit(s)**
- **NSD 627 - Public Health Nutrition 3 credit(s)**
- **NSD 756 - Food and Public Policy 3 credit(s)**
- **PAI 730 - Problems in Public Administration 1-3 credit(s)**
- **GEO 755 - Seminar in Political Ecology 3 credit(s)**

\*Additional choices may be selected from the research and evaluation methods courses listed above.

### Global Health, MS

#### Contact:

Brooks Gump, Graduate Program Director,  
bbgump@syr.edu  
315-443-2208, 344 White Hall

The 36-credit hour master of science in Global Health, is a key component of the educational programs comprising the College's signature in public health.

Many threats to children's health exist today—from biomedical challenges, such as infectious diseases, chronic illnesses and disabilities—to psychosocial challenges, such as child abuse and neglect. Ecological and cultural factors shape the meanings that health practitioners and families attribute to children's health and illness, and how these connotations influence choices made regarding care practices, children's exposure to potential dangers, requests for assistance, and responses to interventions.

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 M.S. in Global Health, is a unique interdisciplinary academic program in the David B. Falk College of Sport and Human Dynamics that builds on expertise in areas including public health, child and family development, social work, nutrition, inclusive education and law. The faculty come from diverse backgrounds with extensive experience in the U.S., Caribbean, Canada, East Asia and the Middle East that will offer students valuable exposure to issues and lifestyles of these cultures. The varieties of faculty disciplines offer

students more than the traditional perspective that will add in-depth knowledge from multiple perspectives.

This degree is designed to prepare graduates for health careers in a variety of local, national and international settings. The graduate training includes education in and outside the classroom. Students gain an in-depth understanding of health related factors that limit performance in schools and access to and use of legal and health systems for all individuals including those with physical disabilities. Graduates will be well-trained professionals in health and social policies; and program development, implementation, and evaluation. This combination of theory and practice allows students to work in policy, research, and service settings.

### Unique Program Features

- A focus on prenatal and postnatal health disparities and their impact on life-long health;
- Understanding multi-faceted challenges (physiological, social, psychological) on children's health;
- Ecological and cultural meanings of child health/well being and relationship to health practices;
- Inclusion of a scholarship-in-action perspective to learning;
- Inclusion of role of men and other caregivers in health-related behaviors and practices;
- Focus on developmental and ecological transitions along the life course;
- Addressing the challenges of children and families with mental health disabilities;
- An interdisciplinary approach to understanding child health and implementing health programs

### Required Courses

- **HTW 669 - Disability, Food, and Health 3 credit(s)** or
- **CFE 614 - Critical Issues in Dis/Ability and Inclusion 3 credit(s)**
- **CFS 631 - Research Methods /Cfs I 3 credit(s)**
- **CFS 653 - Child and Family Development Across the Life Cycle 3 credit(s)**
- **HTW 664 - Social & Behavioral Determinants in Global Health 3 credit(s)**
- **HTW 668 - Applied Epidemiology in Global Health 3 credit(s)**
- **HTW 702 - Child and Family Health Policy**

**in the Global Community 3 credit(s)**

- **HTW 779 - Implementation and Evaluation of Child & Family Health Programs in the Global Community 3 credit(s)**
- **HTW 781 - Graduate Practicum in Child & Family Health in the Global Community 3 credit(s)**
- **NSD 627 - Public Health Nutrition 3 credit(s)**
- **SWK 778 - Policy Practice and Advocacy 3 credit(s)**
- Elective I - 3 credit(s)
- Elective II - 3 credit(s)

### Elective Coursework

Elective coursework can be selected from within the department and from other University departments such as child and family studies, social work, anthropology, psychology, education, sociology, gerontology, social science, nutrition, special education, or women's studies. Students must demonstrate a satisfactory knowledge of basic statistics.

### Additional Information

All students must take the core courses in the department, with the exception of up to 6 credits, which maybe petitioned for substitution or transfer. Substituted/transferred course work should cover material equivalent to that which is covered in the relevant required course. Additional substitutions/transfers may be considered but only in exceptional cases. Substitution/transfer requests will need to be approved by the graduate committee for public health programs. All students are expected to file a tentative program of study in their second semester. Students transferring courses from another institution must file a program of study prior to completing 12 credits at Syracuse University.

### Nutrition Science, MA

#### Contact

Sudha Raj, 315-443-5573

The master's degree represents the professional qualification for many practitioners in dietetics and community nutrition and hence has become the terminal degree for many students. However, the increased number of higher education programs in nutrition and dietetics has also increased interest in doctoral programs that prepare practitioners for faculty positions. The master's degree may thus serve as a preparatory

## GRADUATE COURSE CATALOG

step toward more advanced study.

Because of the varying backgrounds and professional interests of students, the master's degree program is flexible. The M.A. degree requires the completion of a minimum of 36 credits, and the M.S. degree requires the completion of a minimum of 30 credits and a thesis.

The thesis involves investigative work on a specific topic, extensive examination and interpretation of nutrition literature on that topic, and the presentation of results in a clear and logical form. Completion of the thesis may require an additional year of study beyond completion of coursework. Students completing the Didactic Program in Dietetics or DPD requirements (to be eligible to apply to a dietetic internship) will require a minimum of 40 credits.

### General Program Requirements

Students selecting nutrition as a major field of study must have minimum proficiency in chemistry and physiology. A recent course in nutrition must be presented upon entrance.

If you have a bachelor's degree outside nutrition and would like to become a registered dietitian, make an appointment with the director of the Didactic Program in Dietetics (DPD), Nancy Rindfuss, M.A., R.D., to obtain an evaluation of your DPD status. The evaluation might dictate classes you have to complete prior to starting the program.

Both the M.A. and M.S. degrees should include coursework from the major area and supporting areas.

### Major Area Courses

Students are expected to complete all of the core courses, with a grade of B or higher.

#### Core Courses (15 credits)

- **NSD 555 - Food, Culture and Environment 3 credit(s)**
- **NSD 654 - Nutrition Research Methods 3 credit(s)**
- **NSD 665 - Vitamins And Minerals 3 credit(s)**
- **NSD 666 - Metabolism 3 credit(s)**
- **NSD 695 - Nutritional Status Evaluation 3 credit(s)**

#### Courses of Special Interest (0-9 credits)

- **NSD 511 - Nutrition Education 3 credit(s)**
- **NSD 512 - Nutrition Counseling 3 credit(s)**
- **NSD 648 - Dietetics Practice Across the Lifespan 3 credit(s)**
- **NSD 681 - Medical Nutrition Therapy I 3 credit(s)** and
- **NSD 682 - Medical Nutrition Therapy I Lab 1 credit(s)**
- **NSD 683 - Medical Nutrition Therapy II 3 credit(s)** and
- **NSD 684 - Medical Nutrition Therapy II Lab 1 credit(s)**
- **NSD 755 - Field Experience in Community Nutrition 3 credit(s)**

#### Other Nutrition Courses (0-9 credits)

- **NSD 647 - Weight Management, Obesity and Disordered Eating 3 credit(s)**
- **NSD 655 - Issues in Community Nutrition 3 credit(s)**
- **NSD 658 - Participatory Program Planning 3 credit(s)**
- **NSD 660 - Readings in Nutrition 1-3 credit(s)**
- **NSD 670 - Experience Credit 1-6 credit(s)**
- **NSD 680 - Seminar in Food and Nutrition 1-3 credit(s)**
- **NSD 690 - Independent Study 1-6 credit(s)**
- **NSD 755 - Field Experience in Community Nutrition 3 credit(s)**
- **NSD 756 - Food and Public Policy 3 credit(s)**
- **NSD 765 - Problems in Human Metabolism 3 credit(s)**

#### Supporting Area Courses

6 to 18 credits may be selected from any field(s) approved by the student's advisor as being supportive of the total program. The program of study must be approved by the department's graduate committee.

#### Transfer Credits

Students may transfer 30% of the required graduate credit hours (with a grade of B or higher)

with the approval of the graduate committee. A maximum of 12 credits (with a grade of B or higher) may be taken as a non-matriculated student at Syracuse University.

### Comprehensive Examination

The comprehensive examination for both the M.A. and M.S. degrees consists of an essay test on advanced topics in nutrition and an oral examination.

### Nutrition Science, MS

#### Contact

Sudha Raj, 315-443-5573

The master's degree represents the professional qualification for many practitioners in dietetics and community nutrition and hence has become the terminal degree for many students. However, the increased number of higher education programs in nutrition and dietetics has also increased interest in doctoral programs that prepare practitioners for faculty positions. The master's degree may thus serve as a preparatory step toward more advanced study.

Because of the varying backgrounds and professional interests of students, the master's degree program is flexible. The M.A. degree requires the completion of a minimum of 36 credits, and the M.S. degree requires the completion of a minimum of 30 credits and a thesis.

The thesis involves investigative work on a specific topic, extensive examination and interpretation of nutrition literature on that topic, and the presentation of results in a clear and logical form. Completion of the thesis may require an additional year of study beyond completion of coursework. Students completing the Didactic Program in Dietetics or DPD requirements (to be eligible to apply to a dietetic internship) will require a minimum of 40 credits.

### General Program Requirements

Students selecting nutrition as a major field of study must have minimum proficiency in chemistry and physiology. A recent course in nutrition must be presented upon entrance.

If you have a bachelor's degree outside nutrition and would like to become a registered dietitian, make an appointment with the director of the Didactic Program in Dietetics (DPD), Nancy Rindfuss, M.A., R.D., to obtain an evaluation of your DPD status. The evaluation might dictate classes you have to complete prior to starting the

## GRADUATE COURSE CATALOG

program.

Both the M.A. and M.S. degrees should include coursework from the major area and supporting areas.

### Major Area Courses

Students are expected to complete all of the core courses, with a grade of B or higher.

### Core Courses (15 credits)

- **NSD 555 - Food, Culture and Environment 3 credit(s)**
- **NSD 654 - Nutrition Research Methods 3 credit(s)**
- **NSD 665 - Vitamins And Minerals 3 credit(s)**
- **NSD 666 - Metabolism 3 credit(s)**
- **NSD 695 - Nutritional Status Evaluation 3 credit(s)**

### Courses of Special Interest (0-9 credits)

- **NSD 511 - Nutrition Education 3 credit(s)**
- **NSD 512 - Nutrition Counseling 3 credit(s)**
- **NSD 648 - Dietetics Practice Across the Lifespan 3 credit(s)**
- **NSD 681 - Medical Nutrition Therapy I 3 credit(s)** and
- **NSD 682 - Medical Nutrition Therapy I Lab 1 credit(s)**
- **NSD 683 - Medical Nutrition Therapy II 3 credit(s)** and
- **NSD 684 - Medical Nutrition Therapy II Lab 1 credit(s)**
- **NSD 755 - Field Experience in Community Nutrition 3 credit(s)**

### Other Nutrition Courses (0-9 credits)

- **NSD 647 - Weight Management, Obesity and Disordered Eating 3 credit(s)**
- **NSD 655 - Issues in Community Nutrition 3 credit(s)**
- **NSD 658 - Participatory Program Planning 3 credit(s)**
- **NSD 660 - Readings in Nutrition 1-3 credit(s)**

- **NSD 670 - Experience Credit 1-6 credit(s)**
- **NSD 680 - Seminar in Food and Nutrition 1-3 credit(s)**
- **NSD 690 - Independent Study 1-6 credit(s)**
- **NSD 755 - Field Experience in Community Nutrition 3 credit(s)**
- **NSD 756 - Food and Public Policy 3 credit(s)**
- **NSD 765 - Problems in Human Metabolism 3 credit(s)**

### Supporting Area Courses

6 to 18 credits may be selected from any field(s) approved by the student's advisor as being supportive of the total program. The program of study must be approved by the department's graduate committee.

Thesis for the M.S. degree the topic for the thesis should be selected in a specific area of interest that is reflected by the selection of courses within the major and related fields. Students should register for six credits of NSD 997 - Master's Thesis. A written proposal for the thesis must be presented to the department for approval. Oral defense of the thesis is required.

### Transfer Credits

Students may transfer 30% of the required graduate credit hours (with a grade of B or higher) with the approval of the graduate committee. A maximum of 12 credits (with a grade of B or higher) may be taken as a non-matriculated student at Syracuse University.

### Comprehensive Examination

The comprehensive examination for both the M.A. and M.S. degrees consists of an essay test on advanced topics in nutrition and an oral examination.

### Doctorate

### Nutrition Science, PhD

### Note:

Currently, The Nutrition Science P.H.D. Program Is Not Accepting New Students.

The Ph.D. program provides an opportunity for systematic study of various aspects of human nutrition and methods for evaluation and dissemination of nutrition information. Individual

programs are planned to include supporting courses in other fields that provide the basis for understanding the complex physiological, environmental, psychosocial, economic, and cultural factors that influence human nutritional needs as well as the means and methods of studying them.

This program prepares professional nutritionists for college teaching and administrative positions that require understanding or application of advanced knowledge of nutrition and communication with professionals in related fields.

### Program Requirements

Completion of the degree requires 78 credits, including a minimum of 30 credits in nutrition, 15 to 30 credits in supporting areas, and 18 dissertation credits. The student's program of study must be approved by the department.

All students must pass a written qualifying examination, which covers a broad basic area of knowledge of nutrition and foods. The exam can be taken after one year of graduate study in the department, but must be taken before the completion of more than 36 credits. Formal acceptance into the Ph.D. program is contingent upon successful completion of the exam.

### Research Tools

Competence must be achieved in at least two tools of research, including statistics (two appropriate courses or equivalent knowledge). The second tool may be chosen from those areas most appropriate to the student's proposed doctoral research, including research methods, computer use, or foreign languages.

### Comprehensive Examination

A comprehensive examination, which includes both written and oral components, is taken after the student has completed the minimum course requirement of 60 credits.

### Dissertation

A dissertation proposal should be submitted to the department no later than one year prior to the expected date of completion of the program. The dissertation and its defense must be completed in accordance with the requirements of the Graduate School and the department.

### Certificate of Advanced Study

### Addiction Studies, CAS

For more information please contact Dr. Brooks Gump, 315-443-2208, [bbgump@syr.edu](mailto:bbgump@syr.edu)



## GRADUATE COURSE CATALOG

The 24 credit hour Certificate of Advanced Studies (CAS) in Addiction Studies provides an intensive concentration of coursework on the biology, psychology and cross-cultural sociology of addictions for students enrolled in the following Syracuse University graduate programs:

- M.S. Clinical Mental Health Counseling (School of Education)
- Ph.D. Counseling and Counselor Education (School of Education)
- M.A. Marriage and Family Therapy (Falk College)
- M.S.W. Social Work (Falk College)

The CAS in Addiction Studies addresses one of society's major problems and provides students with opportunities to develop competencies in preparation for employment in a number of fields dealing with substance abuse, gambling, and related behavioral addictions. 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. According to the U.S. Bureau of Labor Statistics, substance abuse and behavioral disorder counselors are one of the fastest-growing fields of practice today. Upon completion of the Addiction Studies Certificate of Advanced Studies, students will have met the educational training requirements for initial certification as a New York State Office of Alcoholism and Substance Abuse Services (OASAS) Credentialed Alcoholism and Substance Abuse Counselor (CASAC) and CASAC in Training (CASAC-T).

Note that certification as a CASAC is a NY State credential managed by OASAS, not Syracuse University. In addition to the education requirements met by our Addiction Studies Program OASAS requires 2,000 hours (~ 1 year full time) supervised work experience for CASAC exam eligibility.

### Required Courses (12 credits)

- **HTW 618 - Alcohol, Other Drugs, Sex and Gambling: Dynamics of Addiction 3 credit(s)**
- **HTW 606 - Clinical Evaluation and Assessment of Addictions 3 credit(s)**
- **HTW 609 - The Impact of Addictions on Families and Relationships 3 credit(s)**
- **HTW 610 - Addictions Treatment Planning and Referral 3 credit(s)**

### Choose 1 From This Category List (3 credits)

- **HTW 608 - Addictions in Cultural Context 3 credit(s)**
- **HTW 612 - Global Perspectives in Alcohol & Other Drug Policies 3 credit(s)**
- **COU 675 - Substance Abuse Counseling 3 credit(s)**
- **MFT 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)**

### Choose 1 From This Category List (3 credits)

- **SWK 628 - Human Diversity in Social Contexts 3 credit(s)**
- **MFT 684 - Family Therapy Perspectives on Cultural Diversity 3 credit(s)**
- **COU 626 - Social and Cultural Dimensions of Counseling 3 credit(s)**
- **HTW 605 - Cognitive Behavioral Approaches to Stress Reduction 3 credit(s)**

### Choose 1 From This Category List (3 credits)

- **MFT 724 - Psychopathology 3 credit(s)**
- **HTW 607 - Motivational Interviewing for Behavioral Change 3 credit(s)**

### Choose 1 From This Category List (3 credits)

- **HTW 636 - Ethics in Addiction Services 3 credit(s)**
- **MFT 681 - Marriage and Family Therapy Ethics and Issues 3 credit(s)**

## Dietetic Internship Program, CAS

### Contact:

Dietetic Internship Director, Debra Z. Connolly, 315-443-2386

### Certificate Requirements

The 13 credit hour Dietetic Internship Certificate of Advanced Study (C.A.S.) is a dietetic internship program that can be pursued with or without a graduate degree.

The internship program supports students as they prepare for careers as entry-level dietitians. It builds on academic skills acquired in an accredited didactic program in dietetics. The internship consists of 1200-hours of supervised practice focusing on the nutrition care process as it applies to communities, families, acute care, long term care, outpatient programs and feeding programs. It includes a concentration focusing on outcomes research, and management. The internship is based on the current standards of Accreditation Council for Education in Nutrition and Dietetics (ACEND) (120 S. Riverside Plaza, Suite 2000, Chicago, IL 60606; 312-879-0040; ext. 5400).

### Program Requirements

- **NSD 515 - Physical Assessment and Multiskilling for Dietitians 1 credit(s)**
- **NSD 650 - Dietetics Practicum 1-6 credit(s)** (6 credits required)
- **NSD 680 - Seminar in Food and Nutrition 1-3 credit(s)** (3 credits required)
- **NSD 658 - Participatory Program Planning 3 credit(s)**

## Global Health, CAS

### Contact:

Brooks Gump, Graduate Program Director, 315-443-2208, bbgump@syr.edu

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. This 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 CAS in Global Health can be offered in combination with any graduate degree, or pursued as a stand-alone Certificate. It is particularly useful in providing students in technical or terminal degrees with global health credentials to help them pursue their careers in a global setting. A practicum concluding the program provides students direct field experience.

Students pursuing a CAS in Global Health will learn to design and implement multidisciplinary fieldwork in global settings through adaptation of technical methodologies and strategies across disciplines. Additionally, this graduate certificate program offers students opportunities for meaningful global engagement with stakeholders in ascertaining needs of communities and appropriate, sustainable strategies for improving health.

## Admissions Requirements

Applicants must have earned a bachelor's degree from an accredited institution, with a minimum cumulative GPA of 3.0 in undergraduate coursework.

### Required Courses

- **HTW 661 - Development and Evaluation of Global Health Programs 3 credit(s)**
- **HTW 664 - Social & Behavioral Determinants in Global Health 3 credit(s)**
- **HTW 665 - Applied Global Health Practice and Policy 3 credit(s)**
- **HTW 667 - Graduate Practicum in Global Health 4 credit(s)**
- **HTW 668 - Applied Epidemiology in Global Health 3 credit(s)**

### Global Health Graduate Electives

One elective course is required. Elective courses are approved courses offered through the University in global health-related fields or appropriate technical fields, such as

- **ANT 663 - Global Health 3 credit(s)**
- **HTW 604 - Comparative Health Policy 6 credit(s)**

## School of Social Work

Carrie Jefferson Smith, Director, 315-443-5562  
244 White 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, 244 White Hall

## Graduate

Contact Carrie J. Smith, MSW Program Director  
244 White Hall, 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 Social Work, MSW 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 Advanced Standing MSW program), or a 78-credit two-year program (for students admitted to the MSW Advanced 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 Social Work, JD/MS 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

## GRADUATE COURSE CATALOG

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.

### Master's

### Social Work, Advanced Standing Program, MSW

#### Contact

Carrie J. Smith, MSW Program Director, 315-443-5562.

The advanced standing program is available only to people who have graduated within the past 10 years from an undergraduate social work program accredited by the Council on Social Work Education, and who earned a minimum cumulative GPA of 3.0 in all social work course work. Eligible students are granted advanced standing of 24 credits and complete 36 credits of graduate study as a full-time or part-time matriculated student in the School of Social Work.

Advanced standing applicants who have received a grade below a B in required undergraduate courses in human behavior in the social environment, policy, or research will be required to take the comparable course in the graduate program. Graduate elective credits may not be used to achieve this requirement. Applicants with a grade below a B in foundation practice courses are not eligible for the advanced standing program and may apply to the 60-credit M.S.W. program. Both the regular and the advanced standing program can be completed on a part-time basis.

The advanced standing program includes two

courses in the summer and one full academic year as a full-time graduate student or two full academic years as a part-time student. Advanced standing students complete the 36-credit concentration-level curriculum.

### Social Work, MSW

#### Contact

Carrie J. Smith, MSW Program Director, 315-443-5562.

The School of Social Work offers a concurrent program of classroom and field instruction for the master's degree. The basic 60-credit program, pursued over two academic years, is composed of a 24-credit foundation curriculum and an advanced area of practice concentration. The foundation curriculum helps students develop the base knowledge, values, and skills necessary for effective generalist practice in all areas of social work.

The M.S.W. foundation curriculum required of all master's students includes:

- **SWK 601 - Fundamentals of Social Work Practice I 3 credit(s)** and
- **SWK 602 - Fundamentals of Social Work Practice II 3 credit(s)**
- **SWK 611 - Social Welfare Policy and Services 3 credit(s)**
- **SWK 626 - Persons in Social Context 3 credit(s)**
- **SWK 628 - Human Diversity in Social Contexts 3 credit(s)**
- **SWK 662 - Applied Research in Social Work 3 credit(s)**
- **SWK 671 - Field Instruction I 3 credit(s)** and
- **SWK 672 - Field Instruction II 3 credit(s)**

#### M.S.W. Advanced Concentrations in Social Work

After completing the foundation curriculum, students elect an advanced concentration of 36 credits. Those students admitted before Fall 2015 choose either Social Work Practice with Individual, Families and Groups (clinical focus) or Community Organization, Policy, Planning and Administration ("macro" practice). Students admitted Fall 2015 and after will choose from advanced concentrations in Advanced Clinical

Practice or Integrated Social Work Practice. Field placements are available in child welfare, health, mental health, gerontology, schools, substance use disorders and many other practice settings.

### Required Advanced Concentration Courses

#### Social Work Practice with Individuals, Families, and Groups (IFG)

(students admitted before Fall 2015)

Advanced clinical social work theory, methods, and skills are presented in courses applied to social work with individuals, families, and groups in various practice settings.

3 credit hours each, 36 credits total:

- **SWK 771 - Field Instruction III 3 credit(s)**
- **SWK 772 - Field Instruction IV 3 credit(s)**
- **SWK 724 - Psychopathology 3 credit(s)**
- **SWK 730 - Family Systems Theory 3 credit(s)**
- **SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)**
- Advanced Micro Practice (selected from approved list, see listing below)
- Advanced Micro Practice (selected from approved list, see listing below)
- **SWK 775 - Program Evaluation 3 credit(s)** or
- **SWK 776 - Clinical Practice Evaluation 3 credit(s)**

Advanced Policy - select one:

- **SWK 761 - Mental Health Policy 3 credit(s)**
- **SWK 763 - Health Care Policy 3 credit(s)**
- **SWK 765 - Public Policy and Aging 3 credit(s)**
- **SWK 768 - Family & Child Welfare Policy 3 credit(s)**
- Elective
- Elective
- Elective

## GRADUATE COURSE CATALOG

### Community Organization Policy, Planning, and Administration (COPPA)

(students admitted before Fall 2015)

The curriculum includes a selection of advanced social work practice courses addressing practice theory, method, and skills in community organization and development, program planning, policy planning and advocacy, and administration applied to practice settings.

3 credit hours each, 36 credits total:

- **SWK 771 - Field Instruction III 3 credit(s)**
- **SWK 772 - Field Instruction IV 3 credit(s)**
- Advanced Macro Practice (selected from approved list, see listing below)
- Advanced Macro Practice (selected from approved list, see listing below)
- Advanced Macro Practice (selected from approved list, see listing below)
- **SWK 779 - Seminar in Organizational Development and Leadership 3 credit(s)**
- **SWK 775 - Program Evaluation 3 credit(s)**

Advanced Policy - Select one:

- **SWK 761 - Mental Health Policy 3 credit(s)**
- **SWK 763 - Health Care Policy 3 credit(s)**
- **SWK 765 - Public Policy and Aging 3 credit(s)**
- **SWK 768 - Family & Child Welfare Policy 3 credit(s)**
- Elective
- Elective
- Elective
- Elective

### Advanced Micro Practice Courses

- **SWK 702 - Social Work Practice in Family Mental Health 3 credit(s)**
- **SWK 707 - Short Term Intervention in Social Work 3 credit(s)**
- **SWK 709 - Practice with Children, Adolescents and Families 3 credit(s)**
- **SWK 712 - Clinical Social Work with Groups 3 credit(s)**
- **SWK 735 - Principles and Methods of**

### Social Work Practice with Black Families 3 credit(s)

- **SWK 736 - Evidence-Based Approaches to Mental Health Treatment 3 credit(s)**
- **SWK 737 - Strategies for Community Behavioral Health Practice 3 credit(s)**
- **SWK 738 - Core Concepts in Trauma Treatment for Children and Adolescents 3 credit(s)**
- **SWK 740 - Treatment of Complex Trauma with Individuals 3 credit(s)**

### Advanced Macro Practice Courses

- **SWK 715 - Administration in Human Services 3 credit(s)**
- **SWK 774 - Proposal Writing and Program Development 3 credit(s)**
- **SWK 777 - Community Organization and Development 3 credit(s)**
- **SWK 778 - Policy Practice and Advocacy 3 credit(s)**

### Advanced Clinical Practice

(students admitted Fall 2015 and after)

This concentration takes an eco-systemic perspective in understanding people and interactions. It is designed to prepare students to become clinicians who provide in-depth mental health services that are relationally focused utilizing evidence-informed interventions with a wide range of populations. There is a special emphasis on trauma-informed practice.

3 credit hours each, 36 credits total:

- **SWK 771 - Field Instruction III 3 credit(s)**
- **SWK 772 - Field Instruction IV 3 credit(s)**
- **SWK 724 - Psychopathology 3 credit(s)**
- **SWK 730 - Family Systems Theory 3 credit(s)**
- **SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)**
- **SWK 733 - Social Work Practice in Mental Health 3 credit(s)**
- **SWK 761 - Mental Health Policy 3 credit(s)**
- **SWK 776 - Clinical Practice Evaluation 3 credit(s)**
- **SWK 781 - Alcohol and Other Drugs in**

### Social Work Practice 3 credit(s)

- Elective
- Elective
- Elective

### Integrated Social Work Practice

(students admitted Fall 2015 and after)

The curriculum in this concentration offers advanced practice courses that address theory, method, and skills for integrating micro, mezzo, and macro levels of practice. It prepares students for direct practice and leadership in a wide range of increasingly complex human service organizations.

3 credit hours each, 36 credits total:

- **SWK 771 - Field Instruction III 3 credit(s)**
- **SWK 772 - Field Instruction IV 3 credit(s)**
- **SWK 724 - Psychopathology 3 credit(s)**
- **SWK 730 - Family Systems Theory 3 credit(s)**
- **SWK 743 - Advanced Integrated Social Work Practice 3 credit(s)**
- Advanced Macro Practice (selected from approved list, see listing below)
- Advanced Micro Practice (selected from approved list, see listing below)
- Advanced Micro Practice from micro list or Advanced Macro Practice selected from macro list (both below)
- **SWK 775 - Program Evaluation 3 credit(s) or**
- **SWK 776 - Clinical Practice Evaluation 3 credit(s)**

Advanced Policy - select one:

- **SWK 761 - Mental Health Policy 3 credit(s)**
- **SWK 763 - Health Care Policy 3 credit(s)**
- **SWK 765 - Public Policy and Aging 3 credit(s)**
- **SWK 768 - Family & Child Welfare Policy 3 credit(s)**
- Elective
- Elective

### Advanced Micro Practice Courses

- **SWK 702 - Social Work Practice in Family Mental Health 3 credit(s)**

## GRADUATE COURSE CATALOG

- **SWK 707 - Short Term Intervention in Social Work 3 credit(s)**
- **SWK 709 - Practice with Children, Adolescents and Families 3 credit(s)**
- **SWK 712 - Clinical Social Work with Groups 3 credit(s)**
- **SWK 735 - Principles and Methods of Social Work Practice with Black Families 3 credit(s)**
- **SWK 736 - Evidence-Based Approaches to Mental Health Treatment 3 credit(s)**
- **SWK 737 - Strategies for Community Behavioral Health Practice 3 credit(s)**
- **SWK 738 - Core Concepts in Trauma Treatment for Children and Adolescents 3 credit(s)**
- **SWK 740 - Treatment of Complex Trauma with Individuals 3 credit(s)**
- **SWK 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)**

### Advanced Macro Practice Courses

- **SWK 714 - Supervision, Consultation and Staff Development 3 credit(s)**
- **SWK 715 - Administration in Human Services 3 credit(s)**
- **SWK 774 - Proposal Writing and Program Development 3 credit(s)**
- **SWK 777 - Community Organization and Development 3 credit(s)**
- **SWK 778 - Policy Practice and Advocacy 3 credit(s)**
- **SWK 779 - Seminar in Organizational Development and Leadership 3 credit(s)**

### Combined Degree

## Law/Social Work (Licensed Clinical), JD/ MSW

### Degree Requirements

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 should be directed to Adrienne Renfro, LMSW, Coordinator of Graduate Admissions, 268 White Hall (443-1443; alrenfro@syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

## Social Work and Marriage and Family Therapy Dual Degree, MA/MSW

### Contact:

Carrie J. Smith, Associate Professor, Director School of Social Work cjsmith@syr.edu 315-443-5562

Thom deLara, Associate Professor, Department Chair, Marriage and Family Therapy tdelara@syr.edu 315-443-9830

### Faculty:

For full faculty listings please visit:

MSW program: <http://falk.syr.edu/Faculty/Department.aspx#SWK>

MFT program: <http://falk.syr.edu/Faculty/Department.aspx#MFT>

### Program Description:

This interdisciplinary program allows the student 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.

### Accreditation:

The MSW program is accredited by the Council on Social Work Education.

The MFT program is accredited by the Commission on Accreditation for Marriage and Family Therapy Education.

### Admission:

Applicants must have earned a bachelor's degree from an accredited institution, with a minimum cumulative GPA of 3.0 in undergraduate coursework. Application requirements include transcripts, three letters of recommendation, and a personal statement. Admission requirement for this program include TOEFL or IELTS S scores for international applicants.

### Financial Support:

Merit-based financial support is awarded based on a student's admission application. These awards are highly competitive and are available to both U.S. and international full-time students. Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs).

### Facilities:

The Social Work department is located in 244 White Hall on the Syracuse University campus and provides faculty and student work space. In addition, the Social Work department offers field placement at any of the 200 social welfare, human services and health agencies from 27 counties in upstate New York.

The Marriage and Family Therapy department located at Peck Hall, 601 E. Genesee Street near main campus houses a newly renovated, state of the art, clinical training facility with 14 counseling rooms, observation rooms, and a digital recording system.

### Transfer Credit:

The demands of this dual degree program may restrict your ability to transfer in courses from another MSW degree program. Please consult with the Social Work department directly to determine transfer credit eligibility.

### Satisfactory Progress:

GPA of 3.0 or better & Pass Field Placement

### Degree(s):

Students who complete all requirements will receive the dual Master in Social Work and a Master of Arts in Marriage and Family Therapy.

Students are required to complete all degree requirements as listed in the graduate course catalog for the Master of Social Work, and all degree requirements as listed in the graduate course catalog for the Master of Arts in Marriage and Family Therapy. Students will be required to complete the entire dual degree program before either degree is awarded.

## GRADUATE COURSE CATALOG

Total Credits: 96

### Social Work, JD/MS

The Juris Doctor/Master of Science in Social Work is a joint degree which may be conferred by the College of Law and the Syracuse University Department 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. The MSW can be completed in conjunction with the J.D. in 3 years of full time study along with summer coursework and field experience. Because a joint degree program involves reciprocal application of electives, students are not awarded either degree until the requirements for both degrees are completed.

For further information, please contact the College of Law Admissions Office, 315-443-1962, admissions@law.syr.edu

### Current College of Law Students:

please contact the College of Law Office of Student Life, 315-443-1146, studentlife@law.syr.edu

### Sport Management

Michael D. Veley, Director and Chair, 315-443-2630  
402 MacNaughton Hall

Jeff Pauline, Graduate Program Director, 315-443-2630  
402 MacNaughton Hall

### Faculty

Rick Burton, Dennis Deninger, Mary Graham, 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, Francesco Riveroso

## GRADUATE

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.

### Master's

### Sport Venue and Event Management, MS

### Graduate

Jeff Pauline, Graduate Program Director  
402 MacNaughton Hall, 315-443-2630

The Master of Science (M.S.) degree in Sport Venue & Event Management is a unique, highly specialized 36-credit hour program focused on educational knowledge and skill development related to the operations of venues and events in the sports industry and related entertainment fields. Offered through the Falk College's Department of Sport Management, coursework and experiential learning opportunities have been purposefully designed to train and mentor future professionals to excel in the specialized field of managing multi-purpose sport and entertainment venues and events. The interdisciplinary degree includes courses taught by faculty from the Falk College's Department of Sport Management and SU's School of Information Studies (iSchool), S.I. Newhouse School of Public Communications, and Martin J. Whitman School of Management.

The M.S. in Sport Venue & Event Management leverages an abundance of experiential opportunities with local sports and entertainment venues by requiring nine credit hours of practicum work. Students will receive formalized training in multi-purpose sport venues and professional and intercollegiate sports, including football, basketball, hockey, lacrosse and indoor soccer, among other events. Students will be exposed to critical skills necessary for managing events ranging from local running competitions and festivals to hosting a Super Bowl, NCAA basketball tournament, or World Cup soccer event.

### 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

### Graduate Courses in Sport Venue and Event Management

- **SPM 614 - Foundations of Sport Venue and Event Management 3 credit(s)**
- **SPM 624 - Sport Facilities Management 3 credit(s)**
- **SPM 634 - Sport Event and Hospitality Management 3 credit(s)**
- **SPM 635 - Marketing of Sport Venues & Events 3 credit(s)**

## GRADUATE COURSE CATALOG

- **SPM 645 - The Strategic Management of People in Sport 3 credit(s)**
- **SPM 655 - Practicum in Sport Venue and Events Management 3-9 credit(s)** 9 credits total required
- **SPM 664 - Financial Management of Sport Facilities and Events 3 credit(s)**
- **SPM 665 - Advanced Sport Event Management 3 credit(s)**

### Elective Courses: 6 Credits Required

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.

### Certificate of Advanced Study

### Intercollegiate Athletic Advising and Support, CAS

### Contact:

Teresa M. MacDonald, Ph.D.  
Program Director  
168 White Hall  
443-4822  
tmmacdon@syr.edu

### Faculty:

Catherine Engstrom, Ph.D., Department of Higher Education, Teresa MacDonald, Ph.D., Department of Sport Management, Dessa Bergen-Cico, Ph.D., Department of Public Health, Dawn Johnson, Ph.D., Department of Higher Education

### Description:

The interdisciplinary, 15-credit hour certificate program is designed for current and future higher education professionals (e.g. advisors, higher education/student affairs administrators, and coaches) who wish to understand the research, practice, and policy perspectives associated with intercollegiate sport and student-athlete development in the context of higher education. It includes coursework in the following focus areas: how colleges and intercollegiate athletics work, theoretical perspectives of college student development and learning; the impact of race, gender, and class on college student athlete access and success; and foundations of advising student-athletes.

### Admission:

- Completion of a bachelor's degree and a grade point average of at least 3.0/4.0 in undergraduate study;
- Syracuse University graduate students who wish to add this CAS program as a concurrent program of study will have to meet the same criteria, and will have to achieve a grade point average of at least 3.0/4.0 in their current program of study. They will also have to present written approval from their current program advisors for pursuing the CAS program.
- Submission of a personal statement that focuses on the student's interest in the program as it is conceptualized and offered.

### Learning Outcomes:

1. Apply a broader and more sensitive understanding of the institutional, developmental, and policy-based practices and issues that may influence their work with intercollegiate student-athletes.
2. Gain a comprehensive understanding of the developmental, psychosocial, and emotional perspectives and needs of intercollegiate student-athletes.
3. Apply an understanding of the complex issues and roles of intercollegiate sport in higher education in their future work as professionals in higher education.
4. Evaluate policies and programs that involve intercollegiate advising and support practices based on current understanding of reform in intercollegiate athletics, student athlete development, and institutional oversight.

### Requirements: 15 Total Credits

### Required Courses: 12 Credits Required

- **SPM 611 - Intercollegiate Athletics in Higher Education 3 credit(s)**
  - **SPM 612 - College Student Athletes 3 credit(s)**
  - **HED 621 - Principles and Practices of Student Affairs Administration 3 credit(s)**
  - **HED 712 - Research on the College Student 3 credit(s)**
- or
- **HED 721 - College Student Development 3 credit(s)**

### Electives: 3 Credits Required; Choose one Course

- **SPM 613 - Practicum in Intercollegiate Athletic Support Services 3 credit(s)**
- **HTW 618 - Alcohol, Other Drugs, Sex and Gambling: Dynamics of Addiction 3 credit(s)**
- **HED 664 - Administrative Principles and Practices for Higher Education 3 credit(s)**
- **HED 761 - Organization and Administration in Higher Education 3 credit(s)**

### Child and Family Studies

#### CFS 534 - Practcm/Early Childhood Ed

##### *Child and Family Studies*

3 credit(s) Irregularly  
Planning and implementing curriculum for prekindergarten or kindergarten children. Fieldwork and seminar.

#### CFS 535 - Quality Infant Care Giving

##### *Child and Family Studies*

2-3 credit(s) Upon sufficient interest  
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

##### *Child and Family Studies*

3 credit(s) Irregularly  
Social and psychological issues, theories, and research.

#### CFS 577 - Urban Families Strengths and Challenges

##### *Child and Family Studies*

3 credit(s) Irregularly  
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

##### *Child and Family Studies*

3 credit(s) Upon sufficient interest  
Prepares students to administer, coordinate, promote, consult, and assist in the start-up and development of early childhood program services.

## GRADUATE COURSE CATALOG

### **CFS 600 - Selected Topics**

#### ***Child and Family Studies***

1-6 credit(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. Repeatable

### **CFS 615 - Graduate Proseminar in Child and Family Studies**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring

This proseminar is for first-year Child and Family Studies graduate students to familiarize and gain knowledge about research, teaching, ethical principles, and the profession.

### **CFS 621 - Statistical Concepts I**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring

First course in statistics; provides tools for data analysis. Descriptive and inferential statistics.

### **CFS 622 - Statistical Concepts II**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring

Second course in statistics. Analysis of variance, multiple regression, and multivariate analysis.

PREREQ: CFS 621

### **CFS 631 - Research Methods/Cfs I**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring

Fundamental concepts of research methodologies employed in the study of children and families, focusing on the research process.

PREREQ: CFS 621

### **CFS 633 - Intrvntn Mdls:Infnt&Pre-Sc**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Theoretical and pragmatic bases and dimensions of early childhood programs. Programs of prevention and remediation, both research based and service oriented. Recent manuscript materials.

### **CFS 634 - Secondary Data Analysis Using Social Science Data**

#### ***Child and Family Studies***

3 credit(s) Irregularly

A quantitative focus on the research process through practical examples drawn from data sets deposited with Inter University Consortium for Political and Social Science Research.

PREREQ: CFS 621 AND CFS 622 AND CFS 631

### **CFS 635 - Obs&Assesmt/Infnts&Chldrn**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Demonstrations of preschool tests. Opportunities in naturalistic settings for proficiency in the interaction coding technique, APPROACH, in other observation methods, and in infant developmental tests. Reliability and validity problems in ecological research.

### **CFS 636 - Crtcl Iss/Early Chldhd**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Contemporary issues. Emphasis on developmentally appropriate strategies of teaching and child care. Issues such as cultural diversity, family demographics, role of play.

### **CFS 637 - Theo,Intrp,Apps/Child Dev**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring

Disparate theoretical approaches to child development, especially competing interpretations of the behavior of young children.

### **CFS 638 - Child Development in the Context of Schooling**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Exploration of some of the issues relevant to understanding the development of children in the context of schooling.

### **CFS 645 - The Developing Infant**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Double Numbered with: CFS 345

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.

### **CFS 647 - Play, Childhood Development, and Early Childhood Education**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Role of parents and teachers in supporting children's play from infancy through early school age; enriching classroom play; diversity and special needs considerations.

### **CFS 648 - Family Theory:Interp&Applic**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring

Critical assessment of the theoretical perspectives of family studies; survey of major substantive

developments.

### **CFS 649 - Marital and Cohabiting Roles and Relationships**

#### ***Child and Family Studies***

3 credit(s) Irregularly

In-depth examination of the theory and research in the areas of marriage, cohabitation, and same-sex relationships.

PREREQ: CFS 648 AND CFS 631

### **CFS 652 - Mindfulness in Children and Youth**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring

Double Numbered with: CFS 452

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 653 - Child and Family Development Across the Life Cycle**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring

Course focuses on human growth and development birth through old age within cultural and environmental context. Course is intended to advance learning about research methods lifespan development specific to assessment and measurement of lifespan development.

### **CFS 657 - Cntmp Iss/Human Sexuality**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Individual responses to social pressures. Issues of the sexual revolution and its impact in terms of sexual behavior and dysfunction.

### **CFS 658 - Prosocial&Moral Dev in Child**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Theories and research on familial, societal, and cultural variables related to prosocial and moral development in infants and young children. Child observation required.

### **CFS 659 - Families and Workplaces**

#### ***Child and Family Studies***

3 credit(s) Irregularly

A multi-disciplinary perspective on the evolution of the relationship between workplaces and families.

### **CFS 665 - Lang Dev in Childr & Fam**

#### ***Child and Family Studies***

3 credit(s) Irregularly

Double Numbered with: CFS 365



## GRADUATE COURSE CATALOG

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.

### **CFS 667 - Chld&Fam Crss/Citrl Persp**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring  
Introduction to field methods, the study of childhood, and family in cross-cultural perspectives.

### **CFS 668 - Fam Var: Soc Class&Eth Det**

#### ***Child and Family Studies***

3 credit(s) Irregularly  
Variables of residence (rural, urban, suburban), social class, and ethnicity as they pertain to family organization. Variations in marital relationships, child rearing, kinship, and patterns of mobility.

### **CFS 670 - Experience Credit**

#### ***Child and Family Studies***

1-6 credit(s)  
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.  
Repeatable

### **CFS 674 - Promises and Problems in Youth and Emerging Adulthood**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring  
Development of youth and emerging adults in family and cultural contexts emphasizing both positive outcomes and challenges. Roles of parents, peers, communities, social structures, media influences, and institutions in youth/emerging adult development.

### **CFS 686 - Family Life Education**

#### ***Child and Family Studies***

3 credit(s) Irregularly  
Double Numbered with: CFS 486  
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.

### **CFS 687 - Family Stress and Resilience: Theory and Interpretation**

#### ***Child and Family Studies***

3 credit(s) Irregularly  
Theoretical and empirical research on the role of

critical events on family life and processes, as well as the study of normative and non-normative stressors, coping and resiliency patterns used by families experiencing stress.

### **CFS 690 - Independent Study**

#### ***Child and Family Studies***

1-6 credit(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.  
Repeatable

### **CFS 695 - Sex Role Socialztn & Fam**

#### ***Child and Family Studies***

3 credit(s) Irregularly  
Influence of sex discrimination on sex and gender development over life span. Origin and development of family as sex-typed system. Relationship between changing sex roles and family patterns.

### **CFS 700 - Selected Topics**

#### ***Child and Family Studies***

1-6 credit(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.  
Repeatable

### **CFS 732 - Research Methods/CFS II**

#### ***Child and Family Studies***

3 credit(s) At least 1x fall or spring  
Issues and problems of developmental and interactional analysis. Design of studies, development of measurement categories, and analyses of data. Doctoral student or permission of instructor.  
PREREQ: CFS 622 AND CFS 631

### **CFS 747 - Parenting Research Seminar**

#### ***Child and Family Studies***

3 credit(s) Irregularly  
Provide an overview of relevant theoretical and empirical work that describes the process of parenting. Primary mode of inquiry will be through critical analysis and discussion of relevant literature in the field. Instructor consent required.  
PREREQ: CFS 631 OR MFT 882 OR COU 758 OR NSD 654 OR NSD 795 OR PSY 624 OR PSY 679 OR SOC 606

### **CFS 800 - Selected Topics**

#### ***Child and Family Studies***

1-6 credit(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.  
Repeatable

### **CFS 830 - Sem Child Development**

#### ***Child and Family Studies***

3 credit(s) Irregularly  
Development of the child, either in the home or in the nursery school. Past seminars have included: developmental theories of Jean Piaget and Erik Erikson, difference and deficit models of education.  
Repeatable

### **CFS 835 - Iss & Probs/Chld&Fam Devt**

#### ***Child and Family Studies***

3 credit(s) Irregularly  
An integrative approach to contextualizing development and examining the multitude of influences on child and family development.  
PREREQ: CFS 637

### **CFS 840 - Seminar: Child Development and Family Relations**

#### ***Child and Family Studies***

3 credit(s) Irregularly  
An interactive approach to contextualizing development and examining the multitude of influences on child and family development.  
Repeatable 1 time(s), 6 credits maximum

### **CFS 990 - Independent Study**

#### ***Child and Family Studies***

1-6 credit(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.  
Repeatable

### **CFS 997 - Masters Thesis or Project**

#### ***Child and Family Studies***

0-6 credit(s) Every semester  
Repeatable

### **CFS 999 - Dissertation**

#### ***Child and Family Studies***

1-15 credit(s) Every semester  
Repeatable 14 time(s), 15 credits maximum

## **Food Studies**

### **FST 600 - Selected Topics**

#### ***David B. Falk College of Sport and Human Dynamics***

1-3 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

## GRADUATE COURSE CATALOG

### **FST 601 - Seminar in Food Studies and Systems**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring  
Introduction to selected foundational texts, research strategies, and disciplinary developments in food studies and food systems.

### **FST 603 - The Human Right to Adequate Food and Nutrition**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring  
Double Numbered with: FST 403  
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.

### **FST 604 - Food Studies Research Methods**

*Public Health, Food Studies and Nutrition*

3 credit(s) At least 1x fall or spring  
Research methods for graduate food studies introducing qualitative and quantitative methods, GIS, and food system assessments with emphasis on research design, data management, and writing a proposal.

### **FST 621 - Morality of a Meal: Food Ethics**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring  
Double Numbered with: FST 421  
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 700 - Selected Topics**

*David B. Falk College of Sport and Human Dynamics*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **FST 702 - Political Economy of Food**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring  
Classic and contemporary debates within the political economy of agriculture and food. Explores peasant economies, agrarian questions,

the capitalist development of agriculture, neoliberalization, governance, and politics of consumption.

### **FST 703 - Transnational Food, Health and the Environment**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring  
Explores the relationship between human and environmental health outcomes and the history, structure, function and governance of the food system at global, national and subnational levels.

### **FST 706 - Gender, Food, Rights**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring  
Advanced investigation of the relationship between the human right to adequate food and nutrition, and women's rights.  
PREREQ: FST 603

### **FST 797 - Practicum in Food Studies and Systems**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring  
Students participate in the practical functioning of food systems using learned competencies in an organization or other setting. Requires completion of core requirements and instructor consent.

### **FST 997 - Masters Thesis**

*Public Health, Food Studies and Nutrition*  
1-6 credit(s) Every semester  
Repeatable 5 time(s), 6 credits maximum

## **Health and Wellness**

### **HTW 603 - Introduction to Trauma Studies**

*Public Health, Food Studies and Nutrition*

3 credit(s) At least 1x fall or spring  
Crosslisted with: MFT 603  
This course is an overview of trauma studies and examines trauma typology, prevention, and intervention and is taught through an ecosystemic lens.

### **HTW 604 - Comparative Health Policy**

*Public Health, Food Studies and Nutrition*

6 credit(s) Only during the summer  
Double Numbered with: HTW 404  
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 605 - Cognitive Behavioral Approaches to Stress Reduction**

*Public Health, Food Studies and Nutrition*

3 credit(s) At least 1x fall or spring  
Double Numbered with: HTW 405  
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 606 - Clinical Evaluation and Assessment of Addictions**

*Public Health, Food Studies and Nutrition*

3 credit(s) At least 1x fall or spring  
Double Numbered with: HTW 406  
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.  
COREQ: HTW 618

### **HTW 607 - Motivational Interviewing for Behavioral Change**

*Public Health, Food Studies and Nutrition*

3 credit(s) At least 1x fall or spring  
Double Numbered with: HTW 407  
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 608 - Addictions in Cultural Context**

*Public Health, Food Studies and Nutrition*

3 credit(s) At least 1x fall or spring  
Double Numbered with: HTW 408  
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 618

### **HTW 609 - The Impact of Addictions on Families and Relationships**

*Public Health, Food Studies and Nutrition*

3 credit(s) At least 1x fall or spring  
Double Numbered with: HTW 409  
Knowledge of effects of chemical dependency on family, significant others and the importance

## GRADUATE COURSE CATALOG

of family support in recovery. Knowledge of basic family treatment approaches. Additional work required of graduate students.

### **HTW 610 - Addictions Treatment Planning and Referral**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
Treatment, planning, clinical record keeping, and discharge planning in addition to individual and group, recovery models, replacement therapy, and dual-diagnosis.  
PREREQ: HTW 606

### **HTW 612 - Global Perspectives in Alcohol & Other Drug Policies**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) Every semester  
Double Numbered with: HTW 412  
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 615 - Public Health Ethics**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
Double Numbered with: HTW 415  
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 618 - Alcohol, Other Drugs, Sex and Gambling: Dynamics of Addiction**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) Every semester  
The biological, psychological, and social factors of substance use and related addictions that exist across cultures and species.

### **HTW 621 - Research Methods in Public Health**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
This course will provide students with an introduction to research methods common in the field of Public Health. The course will focus on methods for community-based research involving human participants.

### **HTW 622 - Research Proposal Development**

#### ***Public Health, Food Studies and Nutrition***

2 credit(s) At least 1x fall or spring  
Planning, design, organization and management

of a master's level research project or thesis in the public health, food studies and nutrition disciplines.

### **HTW 623 - Ethical Issues in Public Health, Food and Nutrition Research**

#### ***Public Health, Food Studies and Nutrition***

1 credit(s) At least 1x fall or spring  
Focuses exclusively on ethics in the conduct of research and includes a guided process to completion of an IRB application.  
PREREQ: HTW 622

### **HTW 624 - Prevention in Addiction Services**

#### ***Public Health, Food Studies and Nutrition***

4 credit(s) At least 1x fall or spring  
Double Numbered with: HTW 321  
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. Additional work required for graduate students.  
PREREQ: HTW 618

### **HTW 636 - Ethics in Addiction Services**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
Double Numbered with: HTW 436  
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 638 - Native American Health Promotion**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
Crosslisted with: NAT 638  
Double Numbered with: HTW 438  
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 661 - Development and Evaluation of Global Health Programs**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
Use of common paradigms employed by global agencies promoting best-practice in program design, implementation and evaluation. Students analyze a range of global health programs, reflecting direct service, prevention, partnership, capacity building, and systems strengthening.

### **HTW 662 - Culture and Reproductive Health and Medicine**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) Irregularly  
Crosslisted with: ANT 662  
Double Numbered with: 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.

### **HTW 663 - Global Health**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
Crosslisted with: ANT 663  
Double Numbered with: HTW 463  
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 664 - Social & Behavioral Determinants in Global Health**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
Child and family health problems and issues over the lifespan with particular attention to main biomedical and biosocial causes of poor health and shortened survival. Examples from local, national, and international settings reviewed in depth.

### **HTW 665 - Applied Global Health Practice and Policy**

#### ***Public Health, Food Studies and Nutrition***

3 credit(s) At least 1x fall or spring  
Crosslisted with: PAI 665  
Applied practice of global health, focused in developing countries, through grounding in current global health practice and policy review and multidisciplinary global health classroom projects.

### **HTW 667 - Graduate Practicum in Global Health**

#### ***Public Health, Food Studies and Nutrition***

4 credit(s) Every semester  
An opportunity for students to understand and apply global health competencies through direct experience in a global setting, providing cross-cultural experience and understanding of global health policies and practices in the field.  
PREREQ: HTW 661 AND HTW 664 AND HTW 665 AND HTW 668

## GRADUATE COURSE CATALOG

### **HTW 668 - Applied Epidemiology in Global Health**

#### **Public Health, Food Studies and Nutrition**

3 credit(s) At least 1x fall or spring  
Epidemiological methods used in the study of the etiology, distribution, and control of child, family and global community health problems. Topics will be illustrated with examples from local, national and global settings.

### **HTW 669 - Disability, Food, and Health**

#### **Public Health, Food Studies and Nutrition**

3 credit(s) At least 1x fall or spring  
Crosslisted with: DSP 669  
Major theories, historical events, law, services, and research related to health and wellness for persons with disabilities including disparities, health promotion, ethics, aging, violence, and disaster preparedness.

### **HTW 670 - Experience Credit**

#### **Public Health, Food Studies and Nutrition**

1-6 credit(s)  
Repeatable

### **HTW 690 - Independent Study**

#### **Public Health, Food Studies and Nutrition**

1-6 credit(s) Every semester  
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. Repeatable

### **HTW 702 - Child and Family Health Policy in the Global Community**

#### **Public Health, Food Studies and Nutrition**

3 credit(s) At least 1x fall or spring  
Overview of the major health and welfare policies and programs for children and families in the U.S. and other global settings. Students will learn about issues around community participation in selected global contexts.

### **HTW 704 - Epidemiology of Modern Plagues**

#### **Public Health, Food Studies and Nutrition**

3 credit(s) At least 1x fall or spring  
An introduction to topics and methods in infectious disease epidemiology. Includes the use of geographic information systems to visualize infectious disease trends and estimating the importance of risk factors associated with the disease.

### **HTW 706 - Environmental Epidemiology**

#### **Public Health, Food Studies and Nutrition**

3 credit(s) At least 1x fall or spring  
Provides an introduction to topics and methods

in environmental epidemiology. Includes the critical evaluation of research on how various environmental toxicants might be affecting human health.

PREREQ: CFS 621  
COREQ: CFS 631

### **HTW 779 - Implementation and Evaluation of Child & Family Health Programs in the Global Community**

#### **Public Health, Food Studies and Nutrition**

3 credit(s) At least 1x fall or spring  
Techniques and methods for the implementation and evaluation of child and family health programs in the global community. Exposure to examples and applications from both the US and international settings.

### **HTW 781 - Graduate Practicum in Child & Family Health in the Global Community**

#### **Public Health, Food Studies and Nutrition**

3 credit(s) At least 1x fall or spring  
Application of knowledge and competencies at a national or international agency under the direction of an approved preceptor. Students selecting a US site are encouraged to choose one with a global focus.  
PREREQ: HTW 664 AND HTW 668 AND HTW 702 AND HTW 779 AND CFS 631 AND CFS 653 AND NSD 627

## **Nutrition Science and Dietetics**

### **NSD 500 - Selected Topics**

#### **David B. Falk College of Sport and Human Dynamics**

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **NSD 505 - Nutritional Biochemistry Overview**

#### **David B. Falk College of Sport and Human Dynamics**

1 credit(s) At least 1x fall or spring  
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**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) Every semester  
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**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) Every semester  
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 NSD 511

### **NSD 513 - Nutrition Education Experience**

#### **David B. Falk College of Sport and Human Dynamics**

1 credit(s) Every semester  
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  
Repeatable 4 time(s), 5 credits maximum

### **NSD 515 - Physical Assessment and Multiskilling for Dietitians**

#### **David B. Falk College of Sport and Human Dynamics**

1 credit(s) Every semester  
Practice and skill validation in basic cardiovascular, respiratory, abdominal, muscular, and integumentary assessment. Diabetes and enteral feeding management.  
COREQ: NSD 481 OR NSD 681

### **NSD 555 - Food, Culture and Environment**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) Every semester  
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

### **NSD 617 - Food as Medicine**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) At least 1x fall or spring

## GRADUATE COURSE CATALOG

Double Numbered with: NSD 417

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.

### **NSD 625 - Nutrition for Fitness and Sports**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring

Double Numbered with: NSD 425

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 627 - Public Health Nutrition**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring

Double Numbered with: NSD 427

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: MAT 221 AND NSD 225

### **NSD 647 - Weight Management, Obesity and Disordered Eating**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring

Double Numbered with: NSD 447

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: NHM 225

### **NSD 648 - Dietetics Practice Across the Lifespan**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) Irregularly

Integration of information necessary to understand nutrition issues of importance at different life stages with the skills to assess nutritional status of individuals with non-complex medical issues at different life stages.

PREREQ: NSD 225

### **NSD 650 - Dietetics Practicum**

*David B. Falk College of Sport and Human Dynamics*

1-6 credit(s) Every semester

Structured experience in dietetics management, community, and clinical nutrition in community agencies, hospitals, and food systems operations integrated with classroom theory.

Repeatable

### **NSD 652 - Mediterranean Food and Culture: A Florence Experience**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring

Double Numbered with: NSD 452

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.

### **NSD 654 - Nutrition Research Methods**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring

Integrates an understanding and application of nutrition research methods. Emphasis on evidence-based analysis.

### **NSD 655 - Issues in Community Nutrition**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) Irregularly

Analysis of government role in meeting food and nutrition needs of selected populations. Relationship of public health and welfare policy to nutritional status. Community assessment and program evaluation.

### **NSD 658 - Participatory Program Planning**

*Public Health, Food Studies and Nutrition*

3 credit(s) At least 1x fall or spring

Double Numbered with: NSD 458

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.

### **NSD 660 - Readings in Nutrition**

*David B. Falk College of Sport and Human Dynamics*

1-3 credit(s) Every semester

Repeatable 1 time(s), 6 credits maximum

### **NSD 665 - Vitamins and Minerals**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring

Review of the micro-nutrients, their structures, metabolic and/or physiologic functions, requirements, deficiency states and possible toxicities, nutritional assessment, food sources, and interrelationships with other nutrients.

### **NSD 666 - Metabolism**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring

Metabolic interrelationships and control in the use of proteins, carbohydrates, and lipids.

### **NSD 670 - Experience Credit**

*David B. Falk College of Sport and Human Dynamics*

1-6 credit(s) Every semester

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.

Repeatable

### **NSD 680 - Seminar in Food and Nutrition**

*David B. Falk College of Sport and Human Dynamics*

1-3 credit(s) At least 1x fall or spring

Topics in food and nutrition.

Repeatable 1 time(s), 6 credits maximum

### **NSD 681 - Medical Nutrition Therapy I**

*David B. Falk College of Sport and Human Dynamics*

3 credit(s) At least 1x fall or spring

Double Numbered with: NSD 481

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.

### **NSD 682 - Medical Nutrition Therapy I Lab**

*David B. Falk College of Sport and Human Dynamics*

1 credit(s) At least 1x fall or spring

Double Numbered with: NSD 482

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.

COREQ: NSD 681

## GRADUATE COURSE CATALOG

### **NSD 683 - Medical Nutrition Therapy II**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) At least 1x fall or spring

Double Numbered with: NSD 483

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 681

### **NSD 684 - Medical Nutrition Therapy II Lab**

#### **David B. Falk College of Sport and Human Dynamics**

1 credit(s) At least 1x fall or spring

Double Numbered with: NSD 484

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 682

### **NSD 690 - Independent Study**

#### **David B. Falk College of Sport and Human Dynamics**

1-6 credit(s) Every semester

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.

Repeatable

### **NSD 695 - Nutritional Status Evaluation**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) At least 1x fall or spring

Principles and practices. Dietary, biochemical, anthropometric, and clinical procedures.

Laboratory experiences.

### **NSD 755 - Field Experience in Community Nutrition**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) Irregularly

Field experience with public and private agencies that include programs with a food and/or nutrition component.

PREREQ: NSD 655

### **NSD 756 - Food and Public Policy**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) Irregularly

Introduction to theory of public policy illustrated with examples of a variety of food, nutrition, and agricultural policies. Historical development of policies. Legislative and regulatory issues.

### **NSD 765 - Problems in Human Metabolism**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) At least 1x fall or spring

Selected topics in therapeutic nutrition and metabolism for students with substantial background in nutrition and disease.

PREREQ: NSD 666

### **NSD 795 - Research Methods**

#### **David B. Falk College of Sport and Human Dynamics**

3 credit(s) Upon sufficient interest

Research techniques applicable to the study of nutrition.

Repeatable 1 time(s), 6 credits maximum

### **NSD 997 - Master's Thesis**

#### **David B. Falk College of Sport and Human Dynamics**

1-6 credit(s) Every semester

Repeatable

## **Marriage and Family Therapy**

### **MFT 567 - Sexual Issues for the Helping Professional**

#### **Marriage and Family Therapy**

3 credit(s) Only during the summer

Sexual abuse, sexual assault, sexual dysfunction, sex and disability, and nontraditional sexual relationships. Introduction to educational and therapeutic intervention.

### **MFT 600 - Selected Topics**

#### **Marriage and Family Therapy**

1-6 credit(s) Every semester

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **MFT 603 - Introduction to Trauma Studies**

#### **Marriage and Family Therapy**

3 credit(s) At least 1x fall or spring

Crosslisted with: HTW 603

This course is an overview of trauma studies and examines trauma typology, prevention, and intervention and is taught through an ecosystemic lens.

### **MFT 625 - Family Systems and Therapy**

#### **Marriage and Family Therapy**

3 credit(s) At least 1x fall or spring

Theory and techniques. Therapeutic approaches such as structural, strategic, intergenerational, and experiential family therapy. Not for Marriage and Family Therapy majors.

### **MFT 641 - Divorce Mediation**

#### **Marriage and Family Therapy**

3 credit(s) Only during the summer

Crosslisted with: SWK 641

Basic theory and skills of divorce mediation. Includes introduction to conflict resolution theory, divorce law, financial planning, custody issues, and marital and family dynamics related to divorce.

### **MFT 642 - Therapy with LGBTQ Couples and Families**

#### **Marriage and Family Therapy**

3 credit(s) Only during the summer

LGBTQ relationship issues and sexual and gender identity development and clinical work with LGBTQ clients. Heterosexual/cisgender privilege, coming out, internalized oppression, cultural identities, formation of families and parenting, and gender transition.

### **MFT 643 - Family Therapy with Complex Trauma**

#### **Marriage and Family Therapy**

3 credit(s) Only during the summer

Explores the effects of trauma on child development and family functioning, and introduces the use of family therapy for the treatment of complex trauma. Learn to develop treatment intervention strategies in a systemic framework.

### **MFT 644 - Family Therapy with LGBTQ Youth**

#### **Marriage and Family Therapy**

3 credit(s) Only during the summer

Overview of family therapy with LGBTQ youth, taught through a social justice lens. The course examines how specific LGBTQ issues affect families and other social systems.

### **MFT 645 - Queering Theory, History and Clinical Practice**

#### **Marriage and Family Therapy**

3 credit(s) At least 1x fall or spring

Overview of LGBTQ studies, including traditional understandings of sexuality and gender, historical and contemporary trajectories of LGBTQ people and application to clinical work with LGBTQ clients.

## GRADUATE COURSE CATALOG

### **MFT 661 - Introduction to Family Therapy Practice**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Introduces basic therapeutic skills of family therapy practice.

### **MFT 662 - Systems Dynamics in a Group Setting**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Cognitive and affective awareness of group process through didactic and experiential instruction. Group techniques for the treatment of family issues. For students in Marriage and Family Therapy Program.  
PREREQ: MFT 661

### **MFT 663 - Applied Research in Social Work**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Crosslisted with: SWK 662  
Design and execution of research in human service settings. Proposal development, creation of quantitative and qualitative instruments, coding of data, computer-based data analysis, and production of research reports.

### **MFT 671 - Introduction to Family Systems**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Family as a system. Family functioning and the impact of developmental stage, sociocultural context, and family of origin.

### **MFT 672 - Couple Therapy: Theory and Techniques**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
The couple relationship and ways to facilitate it. Psychodynamic, behavioral, and systems approaches. Non-marital, marital, and divorcing couples. For students in Marriage and Family Therapy program.  
PREREQ: MFT 661, MFT 671

### **MFT 673 - Child Development Theory and Family Therapy Interventions**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly  
Child development, relationship development, and family therapy theory and techniques. The dynamic interplay among family systems, gender, child development, and other contextual variables.

### **MFT 681 - Marriage and Family Therapy Ethics and Issues**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Ethical, legal, and professional issues in marriage and family therapy. For students in the Marriage and Family Therapy program.

### **MFT 682 - Marriage and Family Therapy Theory and Techniques**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Theory and practice of the major family therapies.  
PREREQ: MFT 671

### **MFT 683 - Assessment in Marriage and Family Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Only during the summer  
Individual, couple, and family assessment utilizing a family systems perspective.

### **MFT 684 - Family Therapy Perspectives on Cultural Diversity**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
How six basic dimensions of diversity (race, ethnicity, class, gender, sexual orientation, religion) interface with the dynamics of oppression to structure reality in general, and more specifically the process of therapy.

### **MFT 686 - Play Therapy with Children and Families**

#### ***Marriage and Family Therapy***

3 credit(s) Only during the summer  
Examines the assessment and psychotherapeutic treatment of children and families through play therapy. Working with children and families in crisis including loss, abuse, and illness, is a particular focus.

### **MFT 687 - Spirituality in Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Only during the summer  
Explores spirituality in the context of therapy with individuals and families. Explores relationship between client and therapist by acknowledging spirituality as a possible dimension of personhood while considering language, worldview, power, relationship and individual/systemic issues.

### **MFT 688 - Family Therapy Across the Life Cycle**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Integrative family therapy course exploring the content and process of family therapy in a way that values the similarities and differences

inherent in individual and family therapy across the developmental life cycle.

### **MFT 724 - Psychopathology**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Crosslisted with: SWK 724  
Stressful processes of living, focusing on individual attitudinal and behavioral responses that may be maladaptive. Traditional mental health theories and classifications, and relevant perspectives from sociology, social psychology, and biology.

### **MFT 750 - Introduction to Marriage & Family Therapy Practicum**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Introduction to clinical practice in the Couple and Family Therapy Center

### **MFT 760 - Practicum in Marriage and Family Therapy I**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
First course of four required courses in supervised clinical practice in Couple and Family Therapy for students in the Marriage and Family Therapy program.  
PREREQ: MFT 750  
Repeatable

### **MFT 761 - Practicum in Marriage & Family Therapy II**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Second course of four required courses in supervised clinical practice in Couple and Family Therapy for students in the Marriage and Family Therapy program.  
PREREQ: MFT 760

### **MFT 762 - Practicum in Marriage and Family Therapy III**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Third course of four required courses in supervised clinical practice in Couple and Family Therapy for students in the Marriage and Family Therapy program.  
PREREQ: MFT 761

### **MFT 763 - Practicum in Marriage and Family Therapy IV**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring  
Fourth course of four required courses in supervised clinical practice in Couple & Family Therapy for students in the Marriage and Family

## GRADUATE COURSE CATALOG

Therapy program.  
PREREQ: MFT 762

### **MFT 764 - Practicum in Marriage and Family Therapy V**

#### ***Marriage and Family Therapy***

1-3 credit(s) At least 1x fall or spring  
Elective course in supervised clinical practice in Couple and Family Therapy for students in the Marriage and Family Therapy program who have not completed the required 500 hours.

PREREQ: MFT 763

Repeatable 1 time(s), 6 credits maximum

### **MFT 771 - Family Systems Approach to Addictions and Eating Disorders: Theory and Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly

Family-systems approach to the assessment and treatment of addictions, alcoholism, eating disorders, and obesity.

### **MFT 772 - Divorce and Remarriage: Family Theory and Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly

Family-systems approach to separation, divorce, remarriage, and stepfamily formation. Review of research and family intervention strategies.

### **MFT 773 - Family Violence: Theory and Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly

Systemic approach to assessment and treatment of family violence. Child, spousal, and parental abuse.

### **MFT 774 - Parenting and Family Enrichment: Programs and Research**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly

Theory and research on parenting and family enrichment. Overview of intervention programs

### **MFT 776 - Dysfunctional Families: Theory and Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly

Family-systems approach to treatment of multiproblem, chronically distressed, and rigid families.

### **MFT 777 - Family Perspectives on Gender Roles and Socialization: Theory & Therapy**

#### ***Marriage and Family Therapy***

3 credit(s)

Gender and its implications for socialization, family functioning, and family therapy.

### **MFT 778 - Loss Across the Life Cycle: Family Theory and Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly

Systemic approach to theory and treatment of normative and non-normative losses across the family life cycle.

### **MFT 779 - Sexual Identity and Family Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly

Systemic approach to sexual identity and family therapy theory and clinical applications.

### **MFT 781 - Alcohol and Other Drugs in Social Work Practice**

#### ***Marriage and Family Therapy***

3 credit(s) At least 1x fall or spring

Crosslisted with: SWK 781

Introduces theory and practice strategies appropriate to understand and address alcohol and other drug problems among clients in various human services settings. Prerequisite does not apply to MFT students.

### **MFT 860 - Advanced Family Therapy Practicum**

#### ***Marriage and Family Therapy***

1 credit(s) Every semester

Advanced supervised clinical experience for Marriage and Family Therapy doctoral students. A minimum of four credits required  
Repeatable

### **MFT 861 - Supervision in Marriage and Family Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Even Academic Yr e.g. 2004-5

Theory and techniques of supervision in marriage and family therapy. Required course for AAMFT Supervisor designation.

### **MFT 862 - Advanced Family Therapy with Children and Adolescents**

#### ***Marriage and Family Therapy***

3 credit(s) Even Academic Yr e.g. 2004-5

Assessment, diagnosis, and family treatment of child-hood and adolescent dysfunction. Interaction between child and family system.

### **MFT 863 - Advanced Couple Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Odd academic yr e.g. 2007-8

Family systems approach to the assessment and treatment of couple dynamics, including sexuality.

### **MFT 864 - Family Systems and Family Health**

#### ***Marriage and Family Therapy***

3 credit(s) Irregularly

Relationship between family process and family health, effect of chronic illness on the family system, and overview of family wellness paradigm.

### **MFT 865 - Advanced Family Therapy Theory**

#### ***Marriage and Family Therapy***

3 credit(s) Even Academic Yr e.g. 2004-5

Critique of family therapy theories. Theory development.

### **MFT 870 - Practicum in Marriage and Family Therapy Supervision**

#### ***Marriage and Family Therapy***

1 credit(s) Irregularly

Supervision of Marriage and Family Therapy therapists-in-training. Partial fulfillment of AAMFT requirements for approved supervisor status.

PREREQ: MFT 861

Repeatable

### **MFT 875 - Cultural Diversity: Family Theory and Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Odd academic yr e.g. 2007-8

Influence of racial, ethnic, and religious heritage on family structure and therapeutic intervention.

### **MFT 882 - Assessment and Research Methods in Marriage and Family Therapy**

#### ***Marriage and Family Therapy***

3 credit(s) Odd academic yr e.g. 2007-8

Overview of family assessment techniques. Issues and procedures in family therapy process and outcome research.

### **MFT 885 - Qualitative Research Methods in Family Therapy**

#### ***Marriage and Family Therapy***

3 credit(s)

A qualitative inquiry in the social sciences.

Students will learn to apply qualitative research methodology to understand human phenomena and life.

PREREQ: CFS 631

### **MFT 960 - Internship in Marriage and Family Therapy**

#### ***Marriage and Family Therapy***

0 credit(s) Every semester

Supervised internship in Marriage and Family Therapy. Nine to 12-month family therapy internship with AAMFT approved supervision.

Repeatable



## GRADUATE COURSE CATALOG

### **MFT 997 - Master's Thesis or Project**

#### ***Marriage and Family Therapy***

0-6 credit(s) Every semester  
Repeatable

### **MFT 999 - Dissertation**

#### ***Marriage and Family Therapy***

1-12 credit(s) Every semester

## **Sport Management**

### **SPM 600 - Selected Topics**

#### ***Sport Management***

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **SPM 611 - Intercollegiate Athletics in Higher Education**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
The emergence of intercollegiate athletics in higher education. The academic, socio-cultural, economic, and political benefits and costs. Reform initiatives, athletic governance, and oversight processes impacting athletic policies, advising practices, and support services.

### **SPM 612 - College Student Athletes**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Understanding college student-athletes based on theories of development and college student diversity including gender, sexual orientation, race, ethnicity, disability, international status and preparation. Complexities, challenges and opportunities for student-athletes. Examination of eligibility, advising and support practices.

### **SPM 613 - Practicum in Intercollegiate Athletic Support Services**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Supervised practicum experience in an athletic advising and support services unit within a department of intercollegiate athletics. A two-hour biweekly seminar is required. Instructor consent required.  
PREREQ: SPM 611 AND SPM 612 AND HED 621 AND (HED 721 OR HED 712)

### **SPM 614 - Foundations of Sport Venue and Event Management**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Application of sport management theory to venue and event management associated with hosting,

managing and sponsoring events. Management process, including theory of management and practical applications within the sport venue and event planning industry.

### **SPM 624 - Sport Facilities Management**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Planning and managing different types of sport facilities. Through examples and recognized theory, students gain understanding about the complexity involved in conceptualizing, constructing, promoting, managing and maintaining modern sport stadiums, arenas, domes and multi-purpose facilities.  
PREREQ: SPM 614

### **SPM 634 - Sport Event and Hospitality Management**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Theoretical and practical principles and procedures for designing, planning, implementing, and evaluating a variety of sporting events.  
PREREQ: SPM 614

### **SPM 635 - Marketing of Sport Venues & Events**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Students will learn concepts and skills of sport marketing, sponsorship, and revenue generation as they pertain to a variety of sport venue and event settings.

### **SPM 644 - Technologies in Sport Venues**

#### ***Sport Management***

3 credit(s) Irregularly  
Technology applied to sport management, venue management events, infrastructure, and performance measurement systems. Information, communication and data management systems in sport organizations within the intercollegiate, professional and international segments of the sport industry.  
PREREQ: SPM 614

### **SPM 645 - The Strategic Management of People in Sport**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
A survey course of management theory, principles, and techniques in the sport industry, with a particular emphasis on managing the various types of workers (e.g., employees, contractors, volunteers), necessary to produce sport services and events.

### **SPM 650 - Sports Ticket Sales**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Double Numbered with: SPM 350  
Sports ticket sales process and best practices. Simulated ticket sales environments, application of sales practices and connecting with industry sales professionals. Additional work required of graduate students.

### **SPM 654 - Sport Venue Operations**

#### ***Sport Management***

3 credit(s) Irregularly  
Producing and implementing various sport and entertainment events. Organizational set-up, planning and execution of events in multi-purpose sport facilities. Analyze logistics, budgeting and operational costs of transforming venue into different sporting and entertainment configurations.  
PREREQ: SPM 614

### **SPM 655 - Practicum in Sport Venue and Events Management**

#### ***Sport Management***

3-9 credit(s) Every semester  
The practicum provides students with hands-on industry experience in sports venue and event settings. Students will utilize knowledge and skills learned in other Sport Venue and Event Management coursework through industry application.  
PREREQ: SPM 614  
Repeatable 2 time(s), 9 credits maximum

### **SPM 664 - Financial Management of Sport Facilities and Events**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Sport finance applied to managerial control of sport venues and events. Fundamental business concepts. Analysis of financial statements, budget forecasting and planning, securing optional funding sources and capital budgeting as related to multiple sport venues.  
PREREQ: SPM 614

### **SPM 665 - Advanced Sport Event Management**

#### ***Sport Management***

3 credit(s) At least 1x fall or spring  
Students will build upon prior coursework and knowledge through the planning of a local sport event. All facets of the event will be covered in detail and applied to the actual event.

### **SPM 670 - Experience Credit**

#### ***Sport Management***

1-6 credit(s) Upon sufficient interest  
Participation in a discipline or subject related

## GRADUATE COURSE CATALOG

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.  
Repeatable

### SPM 690 - Independent Study

#### *Sport Management*

1-6 credit(s)

In-depth exploration of a problem or problems. Individual independent study based on a plan submitted by the student. Permission in advance with the consent of the department chairperson, instructor and dean. Limited to those in good academic standing.  
Repeatable

### SPM 700 - Selected Topics

#### *Sport Management*

1-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

## Social Work

### SWK 600 - Selected Topics

#### *School of Social Work*

1-6 credit(s) Upon sufficient interest

Exploration of a topic in social work, not covered by the standard curriculum, but of interest to faculty and students in a particular semester.

Repeatable

### SWK 601 - Fundamentals of Social Work Practice I

#### *School of Social Work*

3 credit(s) At least 1x fall or spring

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.

COREQ: SWK 671

### SWK 602 - Fundamentals of Social Work Practice II

#### *School of Social Work*

3 credit(s) At least 1x fall or spring

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.

### SWK 611 - Social Welfare Policy and Services

#### *School of Social Work*

3 credit(s) At least 1x fall or spring

Historical antecedents of social welfare policy, programs. Social work values, roles. Structure and organization of public and voluntary strategies for achieving economic security, health, and mental health welfare goals. Cultural, racial, ethnic, gender diversity. Policy analysis frameworks.

### SWK 626 - Persons in Social Context

#### *School of Social Work*

3 credit(s) At least 1x fall or spring

Crosslisted with: WGS 626

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 628 - Human Diversity in Social Contexts

#### *School of Social Work*

3 credit(s) At least 1x fall or spring

Crosslisted with: WGS 628

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 635 - Readings in Feminist Psychological Theories

#### *School of Social Work*

3 credit(s) Upon sufficient interest

Crosslisted with: WGS 635

Feminist psychological theories will be identified and analyzed. The intersection of feminist theory and traditional psychological theory, with particular critique to mental health interventions and programs will be examined.

### SWK 640 - Issues in Health Care

#### *School of Social Work*

3 credit(s) Irregularly

Aspects of health care delivery for social work practice. Social patterns of illness and utilization of health care facilities relevant to present and future organization of health care facilities.  
Repeatable

### SWK 641 - Divorce Mediation

#### *School of Social Work*

3 credit(s) Only during the summer

Crosslisted with: MFT 641

Basic theory and skills of divorce mediation. Includes introduction to conflict resolution theory,

divorce law, financial planning, custody issues, and marital and family dynamics related to divorce.

### SWK 657 - Processes of Aging

#### *School of Social Work*

3 credit(s) At least 1x fall or spring

Double Numbered with: SWK 357

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 658 - Practice and Policy in Adult Corrections

#### *School of Social Work*

3 credit(s) Upon sufficient interest

Double Numbered with: SWK 458

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 662 - Applied Research in Social Work

#### *School of Social Work*

3 credit(s) Every semester

Crosslisted with: MFT 663

Design and execution of research in human service settings. Proposal development, creation of quantitative and qualitative instruments, coding of data, computer-based data analysis, and production of research reports.

### SWK 671 - Field Instruction I

#### *School of Social Work*

3 credit(s) Every semester

Supervised practice experience to apply knowledge, social work principles, values, and methods and obtain increasing competence and skill for professional practice. No credit will be given for completion of only one semester of field work.

COREQ: SWK 601

### SWK 672 - Field Instruction II

#### *School of Social Work*

3 credit(s) Every semester

Supervised practice experience to apply knowledge, social work principles, values, and methods and obtain increasing competence and skill for professional practice. No credit will be given for completion of only one semester of field work.

PREREQ: SWK 671

## GRADUATE COURSE CATALOG

COREQ: SWK 602

### **SWK 682 - Introduction to Equine Assisted Activities and Therapies**

#### ***School of Social Work***

3 credit(s) Only during the summer  
Double Numbered with: SWK 482  
Therapeutic use of horses with children and adults experiencing various physical, cognitive, and emotional challenges; nature of horses in healing; research on EAAT. Classroom instruction and experiential learning onsite with an established therapeutic horsemanship program. Additional work required of graduate Students.

### **SWK 689 - Individualized Readings Program**

#### ***School of Social Work***

3 credit(s) Every semester  
Selected readings in social work and related fields under guidance of appropriate faculty.

### **SWK 690 - Independent Study**

#### ***School of Social Work***

1-6 credit(s) Every semester  
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.  
Repeatable

### **SWK 700 - Selected Topics**

#### ***School of Social Work***

1-6 credit(s) Upon sufficient interest  
Exploration of a topic in social work not covered by standard curriculum, but of interest to second year graduate students and faculty in a particular semester.  
Repeatable

### **SWK 702 - Social Work Practice in Family Mental Health**

#### ***School of Social Work***

3 credit(s) Upon sufficient interest  
Advanced family systems practice. Exploration of topics including chronic mental illness, chronic physical illness, couple issues, child focused families, alternative families, aging and death. Political and social contexts of practice.  
PREREQ: SWK 732

### **SWK 703 - Direct Service with the Elderly**

#### ***School of Social Work***

3 credit(s) Irregularly  
Analysis of social work practice models/theories, and development of professional skills as they apply to practice problems confronted in work with the elderly.

PREREQ: SWK 601, SWK 602, SWK 657

### **SWK 707 - Short Term Intervention in Social Work**

#### ***School of Social Work***

3 credit(s) At least 1x fall or spring  
Development of clinical skills in Solution Focused Brief Therapy, Cognitive Therapy and Narrative Therapy. Intervention effectiveness is stressed. Role playing, lecture, group processing and assignments specific to each approach are used to facilitate skill development.  
PREREQ: SWK 601

### **SWK 709 - Practice with Children, Adolescents and Families**

#### ***School of Social Work***

3 credit(s) At least 1x fall or spring  
Intervention models examined in the framework of family empowerment and advocacy for organizational change. Examines implications of diverse, culturally based child rearing practices for design of intervention strategies to strengthen and empower families.  
PREREQ: SWK 730

### **SWK 710 - Topics in Advanced Social Work Practice and Policy**

#### ***School of Social Work***

1-6 credit(s) Upon sufficient interest  
Developing issues and current trends. Shifting directions in social work practice and theory: methods, strategies, and techniques of intervention. Services to diverse populations. Developing issues and current trends. Shifting directions in social work practice, policy, and theory. Service models, techniques, and strategies of intervention for diverse populations. U.S. or international.  
Repeatable

### **SWK 712 - Clinical Social Work with Groups**

#### ***School of Social Work***

3 credit(s) At least 1x fall or spring  
Experiential seminar explores frameworks for therapeutic intervention with formed groups. Focuses on students' prior experience, aids in integration of new models and techniques into social work model for clinical work with groups. Requires concurrent work with short term group.  
PREREQ: SWK 601

### **SWK 713 - Social Work Case Management Practice**

#### ***School of Social Work***

3 credit(s) Upon sufficient interest  
Micro, mezzo, and macro levels of system intervention for populations at risk. Emphasis on empowerment strategies.

PREREQ: SWK 601

### **SWK 714 - Supervision, Consultation and Staff Development**

#### ***School of Social Work***

3 credit(s) Upon sufficient interest  
Functions, methods, and techniques of supervision and consultation within an organizational context. Design, implementation, and evaluation of staff development programs. Emphasis on overcoming barriers to multicultural groups and enhancing staff morale, motivation, and effectiveness.  
PREREQ: SWK 602

### **SWK 715 - Administration in Human Services**

#### ***School of Social Work***

3 credit(s) At least 1x fall or spring  
Organizational and administrative theories and principles are applied to a range of human services. Administrative issues related to effective delivery of services include job design, resource procurement and allocation, strategic planning, and quality management.  
PREREQ: SWK 601

### **SWK 724 - Psychopathology**

#### ***School of Social Work***

3 credit(s) At least 1x fall or spring  
Crosslisted with: MFT 724  
Stressful processes of living, focusing on individual attitudinal and behavioral responses that may be maladaptive. Traditional mental health theories and classifications, and relevant perspectives from sociology, social psychology, and biology.

### **SWK 727 - Family Violence: Policy, Practice and Research**

#### ***School of Social Work***

3 credit(s) At least 1x fall or spring  
Examines family violence from a social work perspective. Integrated understanding of causation and intervention. Direct practice and policy issues. Role of research in the family violence field.

### **SWK 730 - Family Systems Theory**

#### ***School of Social Work***

3 credit(s) At least 1x fall or spring  
Exploration of foundational and current couple and family therapy theories as they relate to functional and dysfunctional interactions, and to the practice of Social Work with individuals, families and groups.  
PREREQ: SWK 626  
Repeatable

## GRADUATE COURSE CATALOG

### **SWK 732 - Advanced Practice with Individuals, Families and Groups**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Application of systems thinking to advanced social work practice with individuals, families, and groups. Intervention with problems of aging, child welfare, health, mental health, and in the workplace.  
PREREQ: SWK 730  
COREQ: SWK 771

### **SWK 733 - Social Work Practice in Mental Health**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Advanced practice course in clinical social work concentration. Focuses on integration of knowledge in SW program, while including group therapy, cognitive behavioral therapy and professional use-of-self perspective.  
PREREQ: SWK 730 AND SWK 732  
COREQ: SWK 772

### **SWK 735 - Principles and Methods of Social Work Practice with Black Families**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Principles and methods in working with black families. Practice interventions are examined within a cultural context. Attention will be given to the historical underpinnings that have molded the black experience in America.  
PREREQ: SWK 601

### **SWK 736 - Evidence-Based Approaches to Mental Health Treatment**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Evidence-based practices within recovery-oriented paradigm for treating individuals with serious mental illness. Focus on assessment, treatment outcomes, and translating research into practice.  
PREREQ: SWK 601

### **SWK 737 - Strategies for Community Behavioral Health Practice**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Skills related to engagement and motivational enhancement for social work practice with individuals within community-based settings. Models: recovery-oriented practices, person-centered planning, motivational interviewing, and classroom experience involves interaction with agency practitioners.

### **SWK 738 - Core Concepts in Trauma Treatment for Children and Adolescents**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Introduction of core concepts that inform evidence-based assessment and intervention with traumatized children and adolescents. Addresses the level of functioning of primary caregiving environments and assesses capacity of the community to facilitate restorative processes.  
PREREQ: SWK 601

### **SWK 739 - Applied Neuroscience in the Human Services**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
The course explores key findings in neuroscience and consideration of implications for human service practitioners across disciplines and settings. Enables integration of scientific findings, related controversies, and ethical issues into approach to practice and policy.

### **SWK 740 - Treatment of Complex Trauma with Individuals**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Preparation for clinical practice with individuals who have experienced complex trauma. Current interventions for trauma treatment and factors involved in appropriate treatment selection are addressed.

### **SWK 742 - Violence, Bullying, & Trauma: Clinical Perspectives**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Analysis of violence, bullying, harassment, hazing, and traumatic effects that result. A systems theory perspective is applied to organizations and to families. Evidence-based approaches for intervention and remediation are discussed.

### **SWK 743 - Advanced Integrated Social Work Practice**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Principles, modalities, techniques of social work practice integrated across micro and mezzo levels. Advanced assessment, intervention and evaluation across systems, in community-based practice, through the context of mental health, child welfare, health, aging.  
PREREQ: SWK 601

### **SWK 761 - Mental Health Policy**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring

Policies, programs in mental health and developmental disabilities fields. Deinstitutionalization, community-based services. Special mental health issues related to poverty, ethnicity, gender, sexual orientation. Policy analysis.  
PREREQ: SWK 611

### **SWK 763 - Health Care Policy**

#### **School of Social Work**

3 credit(s) Upon sufficient interest  
Present organization of health care services, development of government legislation, and regulation. Organization and growth of public and private services and their impact on special populations.  
PREREQ: SWK 611

### **SWK 765 - Public Policy and Aging**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Identify social policy formulations relevant to the changing lifestyle of the elderly. Implications of such policies for the social institutions and delivery systems serving elderly persons and their families.  
PREREQ: SWK 611

### **SWK 766 - Seminar in International Social Welfare Policy and Social Work**

#### **School of Social Work**

3 credit(s) Upon sufficient interest  
Cross-national comparisons.  
PREREQ: SWK 611

### **SWK 768 - Family & Child Welfare Policy**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring  
Examines policies, programs affecting three groups of families and children: supportive services for all, target services for those at risk, and intensive interventions to protect children with acute problems. Measurement and political dimensions of policy making analysis.  
PREREQ: SWK 611

### **SWK 771 - Field Instruction III**

#### **School of Social Work**

3 credit(s) Every semester  
Supervised practice experience in social agencies related to student's concentration choice. No credit will be given for only one semester of field work.

### **SWK 772 - Field Instruction IV**

#### **School of Social Work**

3 credit(s) Every semester  
Supervised practice experience in social agencies related to student's concentration choice. No

## GRADUATE COURSE CATALOG

credit will be given for only one semester of field work.

PREREQ: SWK 771

### **SWK 774 - Proposal Writing and Program Development**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring

Planning, development, and funding of social service programs in both private nonprofit and public settings.

### **SWK 775 - Program Evaluation**

#### **School of Social Work**

3 credit(s) Every semester

Evaluation of human service programs reflected in students' field placements. Evaluability assessment. Program description. Posing evaluation questions. Quantitative and qualitative methods of needs assessment, information management, process evaluation, outcome evaluation, cost analysis, reporting results.

PREREQ: SWK 662

COREQ: SWK 771 OR SWK 772

### **SWK 776 - Clinical Practice Evaluation**

#### **School of Social Work**

3 credit(s) Every semester

Evaluation of clinical practice reflected in students' field placements. Principles of measurement. Single system design. Critical thinking in clinical decision making. Quantitative and qualitative methods of systematic self-evaluation, instrument design, data analysis.

PREREQ: SWK 662

COREQ: SWK 771 OR SWK 772

### **SWK 777 - Community Organization and Development**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring

Theoretical orientations and skills required for social work practice of community economic development in urban and rural settings.

PREREQ: SWK 602

### **SWK 778 - Policy Practice and Advocacy**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring

Social policy analysis, planning and advocacy knowledge, methods and skills applied to social reform and social change in health and welfare arenas.

PREREQ: SWK 611

### **SWK 779 - Seminar in Organizational Development and Leadership**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring

Theories, research, and practice models of organizational development and leadership. How organizations function and personal exploration of the self as change agent. Skills of analysis and synthesis for organizational change in public and nonprofit settings.

PREREQ: SWK 771

### **SWK 781 - Alcohol and Other Drugs in Social Work Practice**

#### **School of Social Work**

3 credit(s) At least 1x fall or spring

Crosslisted with: MFT 781

Introduces theory and practice strategies appropriate to understand and address alcohol and other drug problems among clients in various human services settings. Prerequisite does not apply to MFT students.

PREREQ: SWK 601

### **SWK 785 - AIDS: Social and Preventive Issues**

#### **School of Social Work**

3 credit(s) Upon sufficient interest

Studies policy and practice issues affecting individuals infected by human immunodeficiency virus (HIV). Examines nature of illness, its psychosocial sequelae, differential impact on ethnic/cultural groups in U.S., and strategies for ethnic sensitive practice.

### **SWK 789 - Individualized Reading Program**

#### **School of Social Work**

1-4 credit(s) Every semester

Selected readings in social work and related fields under guidance of appropriate faculty.

### **SWK 790 - Independent Study**

#### **School of Social Work**

1-6 credit(s) Every semester

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. Repeatable

### **SWK 997 - Masters Thesis**

#### **School of Social Work**

0-6 credit(s) Upon sufficient interest

Individual thesis guidance. Comprehensive research plan is presented for faculty approval. Thesis submitted to Graduate School for examination.

## **David B. Falk College of Sport and Human Dynamics Faculty**

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, Associate 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., Syracuse University, 2006

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

## GRADUATE COURSE CATALOG

- 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
- Pamela J. Johnson, Assistant Professor, Social Work  
Ph.D., Case Western Reserve University, 2010
- Eunjoo Jung, Associate 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
- 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
- Diane Lyden Murphy, Dean, David B. Falk College of Sport and Human Dynamics, Associate Professor,  
Social Work  
Ph.D., Syracuse University, 1983
- 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, Associate Professor, Child and Family Studies  
Ph.D., Purdue University, 2008
- Rachel Razza, Associate 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
- 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

Jeffrey Stanton, Interim 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, data science, 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

- Information Management and Technology, BS
- Systems and Information Science, BS
- Dual Major with the Martin J. Whitman School of Management
- Dual Major with the S.I. Newhouse School of Public Communication
- Information Management and Technology Minor
- Global Enterprise Technology Minor
- Information Technology, Design, and Startups Minor

## Graduate

- Library and Information Science, MS
- Library and Information Science: School Media, MS
- Information Management, MS
- Telecommunications and Network Management, MS
- Executive Master of Science in Information Management
- Information Science and Technology, PhD
- Information Management, DPS

## Certificates of Advanced Study

- Cultural Heritage Preservation, CAS
- Data Science, CAS
- E-Government Management and Leadership, CAS
- Information Security Management, CAS
- Information Systems and Telecommunications Management, CAS
- School Media, CAS

## Message From the Dean

Jeffrey Stanton

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

# GRADUATE COURSE CATALOG

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.
- **Behavior, Information, Technology and Society (BITS) Lab** is the home of an inter-disciplinary team of researchers who develop cutting-edge applications, tools, and software, and engage in innovative studies of how people use information and communication technologies and how their use of these technologies affect society.
- **Social Computing Systems Lab (SALT)** focuses on systems research in social computing. Researchers seek a deep understanding of how people interact with sociotechnical



## GRADUATE COURSE CATALOG

computing systems, and develop original designs that either enable new forms of user/social interaction or impact existing user/social interaction.

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.

## Graduate Education

At the School of Information Studies (iSchool), we view information as a resource that can and should be managed. We seek ways to use existing and emerging technologies to facilitate the efficient transfer of information from corporate files, libraries, or digital storage devices to the people and organizations needing it. As a professional school, the iSchool prepares graduates for careers as managers and information professionals who will oversee the development and use of this resource.

Information studies must also consider the rapid changes in computer and telecommunications technologies that have profoundly affected the way information is stored, processed, transmitted and consumed. And, because we believe that information is to be used, information studies must include aspects of the social sciences in order to temper technical knowledge with a thorough understanding of how people and organizations seek and use information.

The iSchool at Syracuse is committed to preparing technically sophisticated information managers who understand that information is an essential resource for people and organizations that must be used and managed effectively. As the first school in the country to offer a master's degree in information management, Syracuse University is a leading center in defining both the theory and practice of information management and is ranked No. 1 in information systems by U.S. News & World Report.

## Online Course Delivery

Since 1993, the iSchool at Syracuse University has been offering high quality graduate level online learning opportunities to students around the world. Each year, students representing a broad range of professional, cultural, and academic experiences; ages, and geographic locations join iSchool online education programs. With limited residencies (for non-executive track masters programs), no full-time enrollment

requirements and asynchronous course delivery, iSchool students can learn virtually anytime, anywhere, earning a Syracuse University degree with flexible study schedules and no need to relocate.

The iSchool is dedicated to ensuring quality in campus and online learning programs. iSchool online graduate programs attract some of the best professionals in their related fields and the online classroom becomes an environment that enhances engagement and expands professional networks. Graduates emerge prepared to excel in the information profession of their choice.

All master's and certificates of advanced study programs (with the exception of the eGovernment Management and Leadership, Cultural Heritage Preservation, and School Media certificate programs) offered by the iSchool can be completed on campus or in an online learning format. Each online program has the same curriculum, faculty, academic calendar, and tuition as their respective campus program. Online courses are of the same academic rigor as on-campus courses, and every effort is made to ensure that the academic experience is of equally excellent quality for both online and campus students. The only difference is the delivery mode.

Graduates of the School of Information Studies online programs receive the same degree as their campus counterparts.

Helen Benning Regnier Summer Institute

The iSchool also offers graduate level courses each summer through the Regnier Summer Institute. The Institute's flexible structure enables the iSchool to offer special topics, experimental, and intensive courses for incoming and current students as well as working professionals looking to brush up their skills.

Participants have the option of registering for short intensive, on-campus courses for credit or auditing classes on campus, online, or in a limited residency format. Courses are open to non-matriculated and matriculated graduate students. Regnier Institute courses traditionally take place on campus in an intensive 9 a.m. to 5 p.m. one-week format. Additionally, the iSchool offers several online summer courses which meet asynchronously over several weeks.

## Executive Education

The School of Information Studies is dedicated to expanding the capabilities of people who are at all stages in their professional development. The executive education programs at the iSchool focus on preparing mid- to upper-level managers for senior leadership positions and for advancing their organizations to new tiers of achievement.

The iSchool offers a variety of programs for working professionals looking to boost their

## GRADUATE COURSE CATALOG

careers-through a formal degree program, certificate of advanced study programs, certification programs, or short topic-driven seminars, workshops, symposia, or similar event-based experiences. This range of options allows individuals to choose brush up on their skills or delve into a subject area more intensively. Our executive education programs can be completed online or on campus on a full-time or part-time basis.

Programs created specifically for the executive track include:

- Executive M.S. in Information Management- The selective, 30-credit hour Executive Information Management (IM) program combines technology, policy, security, and management. The program's unique curriculum and experiential learning opportunities shape students' understanding of technology and management with a practical understanding of their roles within organizations. The distinctive educational program has earned domestic and international recognition and praise.
- Information Management, DPS - The exclusive, 51-credit, part-time Doctorate of Professional Studies in Information Management program is for working professionals interested in leadership and applied research in the information field. This 36-42 month program prepares innovators to be the catalyst for positive change within their organizations. The program is designed for elite information professionals whose career trajectory is directed to taking on visible leadership in professional practice. This highly selective, nontraditional doctoral program accepts students who can establish powerful working partnerships between the iSchool and their own organizations.

Mid-career professionals seeking to develop expertise in one of the following areas can enroll in a Certificate of Advanced Study program.

The iSchool at Syracuse is committed to helping organizations and their employees achieve life-long learning goals, and in finding ways to keep an organization's knowledge and skills up-to-date. Since many of the iSchool faculty members are experienced in business, they know that balancing a career and life can be a challenge. So, they can work with your organization in several ways at all degree levels:

- Numerous weekly and evening classes
- A complete online curriculum alternative
- Consideration for life experience
- Custom non-credit workshops
- Professional certifications

The iSchool assists companies in meeting long-term industry challenges by developing new

courses in innovative subjects or delivery methods unique to specific companies.

### Accreditation

Syracuse University is fully accredited by the Middle States Commission on Higher Education (MSCHE) and all programs are registered with the New York State Education Department. The MSCHE is a voluntary, non-governmental, membership association that has been dedicated to quality assurance and improvement through accreditation via peer evaluation, since 1919.

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 65 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.

### Master's

### Computational Linguistics, MS

Jaklin Kornfilt  
Kornfilt@syr.edu  
340 HB Crouse  
315-443-5375

### Faculty

Howard A. Blair, Jaklin Kornfilt, Nancy McCracken, Maria Emma Ticio Quesada, Howard Turtle, Bei Yu

Computational Linguistics (also called Natural Language Processing, abbreviated as NLP) is a

field of vital importance in the information age. With growing amounts of speech and text data, the demand keeps increasing for automated tools to understand human language and NLP specialists to develop and operate these tools.

In industry, Computational Linguistics techniques are being widely used in search engines, digital libraries, speech recognition systems, and data mining toolkits. The leading data analysis companies like SAS and SPSS all have added text analysis components to their products. Many open-source NLP toolkits have also been available. Companies with large amount of text data need NLP specialists to develop in-house tools or use off-the-shelf tools to analyze their corpora.

Computational Linguistics also plays a critical role in the latest data-driven scholarship in computational social sciences and digital humanities. Humanist scholars and social scientists are increasingly using large corpora to make robust inferences in their research. Scientific literature, government documents, and user-generated content in social media are just a few examples of commonly used corpora. Students and scholars in sociology, journalism, and communication fields also need to learn to use NLP tools to slice and dice large document collections, identify the main themes and opinions of different parties.

Syracuse University is home to the Syracuse University Forensic and National Security Science Institute (FNSSI), which provides critical leadership for the protection of our nation in the areas of defense and security. The tools and techniques described above are also widely used in national defense and security agencies, as well as law enforcement agencies at the local, national, and international levels. The knowledge of such tools and their development and use is becoming more critical to employees in these fields, which is another reason SU is a strong candidate for a computational linguistics program.

### Requirements:

In order to receive the Masters of Science in Computational Linguistics, students must complete at least 36-credit hours of coursework, which may include up to 6 credits earned through an internship, and earn a cumulative grade point average of at least 3.0.

Nine courses (five 3-credit LIN courses in linguistics, two 3 credit CPS courses in computational science, and two 3 credit IST courses in information studies) plus a 3 or 6 credit IST internship, all offered on a yearly basis, will be required of all those interested in receiving the degree. The first of these courses, LIN 601 - Introductory Linguistic Analysis, will provide essential grounding in the mechanics of language, e.g. the sound system, word structure,

## GRADUATE COURSE CATALOG

sentence structure, and meaning. Through the use of examples from a range of languages, students will learn about similarities and differences across languages, which will allow them to understand the various possible manifestations of natural language. LIN 641 - Syntactic Analysis, LIN 651 - Morphological Analysis, and LIN 611 - Semantics of Human Languages, build on the principles learned in LIN 601 to provide students with a deeper understanding of the three areas of linguistics that are most important to the field of computational linguistics. LIN 741 - Advanced Syntax, builds upon the principles of syntactic analysis which are introduced in LIN 641.

Two additional required courses are in information studies: The foundational courses IST 657 - Basics of Information Retrieval Systems and IST 664 - Natural Language Processing/CIS 668 - Natural Language Processing. A third required course is the internship course IST 971. This internship can be taken for three or six credits. If taken for three credits, The internship IST 971 can be taken for three or six credits. If taken for three credits, an elective from the courses below for three credits needs to be added. IST 657 - Basics of Information Retrieval Systems, will provide fundamental knowledge in information representation, information seeking behavior, query and document matching, relevance measure, search interface design, and information retrieval system evaluation. IST 664 - Natural Language Processing, introduces concepts and methods in processing text at syntactic, semantic, and pragmatic levels. It covers techniques of tokenizing, sentence splitting, part-of-speech tagging, and parsing.

Two additional required courses are in computational science CPS 681 - Explorations in Computing and Programming and CPS 688 - Algorithms for Computational Journalism and Linguistics. Students who demonstrate sufficient knowledge in these areas may test out of the courses and replace them with elective courses from the list below.

### Elective Courses.

The courses that follow are generally offered yearly. Students can select among them in completing the remaining credits required for completion of the degree, based on professional need and academic interest. Substitutions may be made with the permission of the director of the degree program.

- **CIS 666 - Expert Systems 3 credit(s)** or
- **CSE 683 - Expert Systems 3 credit(s)**
- **CIS 667 - Introduction to Artificial Intelligence 3 credit(s)** or
- **CSE 684 - Introduction to Artificial Intelligence 3 credit(s)**

- **CIS 626 - Theoretical Foundations of Computer Science 3 credit(s)**
- **CIS 623 - Structured Programming and Formal Methods 3 credit(s)**
- **CSD 616 - Introduction to Applied Phonetics 3 credit(s)**
- **LIN 631 - Phonological Analysis 3 credit(s)**
- **LIN 612 - Pragmatics: Meaning and Context 3 credit(s)**
- **PHI 651 - Logic and Language 3 credit(s)**
- **IST 631 - Theory of Classification and Subject Representation 3 credit(s)**
- **IST 638 - Indexing and Abstracting Systems and Services 3 credit(s)**
- **IST 649 - Human Interaction with Computers 3 credit(s)**
- **IST 565 - Data Mining 3 credit(s)**
- **IST 736 - Text Mining 3 credit(s)**

### Admission requirements:

- Completed Syracuse University Graduate School Application
- Resume
- Personal Statement - include background and interest in the program
- Official transcripts - from graduate and undergraduate studies
- 3 Letters of Recommendation
- Application Fee
- GRE Scores: Required
- TOEFL Scores: 580 (written test), 237 (computer-based test), 92-93 (internet-based test) minimum for unconditional admissions

### Additional Information

Partial tuition scholarships may be available. Please contact the Director for further information.

## Information Management, MS

### Contact:

Carsten Oesterlund, Program Director, 309 Hinds Hall, 315-443-2911, [igrad@syr.edu](mailto:igrad@syr.edu)

## Website:

Information Management

## Overview:

Information has a fundamental effect on the structure, process and success of all organizations. Those who can manage the tools of information acquisition, use, retention and transfer can enable their organizations to develop and leverage strategic advantages based upon information. Along with these advantages comes also the responsibility to set forth and manage policies for the use and protection of information resources at all levels across the enterprise.

The Master of Science in Information Management (IM) is designed to prepare students to respond to four basic challenges confronting organizations today:

- Increasing the effectiveness of managers and executives who work with information resources;
- Designing and managing mission-critical information technologies within organizations;
- Developing corporate and government policies to maximize the benefits resulting from the widespread use of these technologies; and
- Leveraging information resources to achieve strategic advantage for business, government, and nonprofit organizations.

The iSchool at Syracuse University is a leading center for defining both the theory and the practice of information management. Like the school itself, the IM program is interdisciplinary in focus, combining expertise in the strategic management of information resources, organizational psychology, human-computer interaction, information economics, information policy, e-business, information technology, as well as data management.

## Professional Values and Competencies:

IM graduates acquire skills in management and organizational change, solution analysis and design, communication and collaboration, business process improvement, and applied information technology. Our graduates learn to approach challenges with strategic vision, while ensuring that technology solutions integrate with enterprise goals.

## Learning Outcomes:

IM graduates have a diverse set of skills that enable them to participate at all levels of

# GRADUATE COURSE CATALOG

information technology management. They are expected to acquire competencies in the following:

- **Management of Technology:** Students will be able to integrate technical and solution development concepts with the principles of management, strategy, and financial analysis. Students will be able to apply these concepts in the analysis of complex management case studies and problems. Students will be able to analyze, compare, evaluate, and clearly articulate the relative value of IT investment alternatives.
- **Management of Solution Development:** Students will be able to employ their knowledge and comprehension of information-related disciplines in the development of information system solutions. These disciplines include systems analysis and design, project management, IT procurement, and user analysis. Students will be able to apply these disciplines to the solution of organizational and business problems.
- **Technical Knowledge:** Students will be able to describe operation and use of information and communication technologies, including database management systems, networks, operating systems, information security, and Internet technologies. Students will be able to apply these technologies to solve information problems at the individual and organizational levels.
- **Organizational Context of IM:** Students will be able to articulate the environmental forces that affect the application of IT solutions. Such forces include demographic, social, economic, and ethical factors, as well as local, national, and international information policy and regulation.
- **Evolution of the IM Field:** Students will be able to use their knowledge of the history and current state of the management of information technology to create and evaluate plausible scenarios for the future evolution of technology and the field.
- **Professional Communication Skills:** Students will be able to demonstrate the application of principles, norms, and practices governing professional communication in their field through developing and delivering effective professional communications.
- **Leadership and Teamwork Development:** Students will be able to demonstrate the principles of leadership, followership, and effective collaboration in both co-located and virtual team contexts.
- **Information Literacy, Analysis, and Problem Solving:** Students will be able to find, organize, manage, evaluate, and use information resources effectively for the solution of professional problems.

## Curriculum:

The 42-credit curriculum includes a 10-credit primary core requirement, a 15-credit secondary core requirement across three core areas, 8 to 14 credits of electives, and a 3 to 9 credit exit requirement. Some requirements can be waived on the basis of the student's professional full-time work experience (see Waiver Policy below). The master's degree program must be completed within seven years although most students complete the degree in two years. The program is available to part-time and distance students and can be completed at the student's own pace through evening, short courses, and online delivery.

(Courses, other than those listed below, may apply to the Secondary Core. Students should review the full iSchool curriculum and make requests for substitutions, as appropriate. Students should consult Advising in Student Services for these requests.)

The program includes three components:

### I. Primary core (10 credits)

IST 601 and IST 621 (gateway courses) must be taken in the first semester of the student's program (gateway courses), unless specifically advised based on the timing of a student's entry into the program.

- **IST 601 - Information and Information Environments 1 credit(s)** (gateway course)
- **IST 614 - Management Principles for Information Professionals 3 credit(s)**
- **IST 618 - Information Policy 3 credit(s)**
- **IST 621 - Introduction to Information Management 3 credit(s)** (gateway course)

### II. Secondary Core (15 credits)

Management Approaches and Strategies Track (6 credits)

- **IST 619 - Applied Economics for Information Managers 3 credit(s)**
- **IST 645 - Managing Information Systems Projects 3 credit(s)**
- **IST 654 - Information Systems Analysis 3 credit(s)**

Technological Infrastructure Track (6 credits)

- **IST 639 - Enterprise Technologies 3 credit(s)**
- **IST 653 - Telecommunications and Enterprise Network Management I 3**

**credit(s)**

- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**

User Information Needs Track (3 credits)

- **IST 553 - Information Architecture for Internet Services 3 credit(s)**
- **IST 617 - Motivational Aspects of Information Use 3 credit(s)**
- **IST 626 - Business Information Resources and Strategic Intelligence 3 credit(s)**
- **IST 631 - Theory of Classification and Subject Representation 3 credit(s)**
- **IST 641 - User-Based Design 3 credit(s)**
- **IST 649 - Human Interaction with Computers 3 credit(s)**
- **IST 656 - Telecommunications and Enterprise Network Management II 3 credit(s)**
- **IST 662 - Instructional Strategies and Techniques for Information Professionals 3 credit(s)**

### III. Electives (8 to 11 credits)

All iSchool courses are acceptable electives. In addition, with the approval of their academic advisors and the program director, students are allowed to take up to 6 credits of certain courses from other schools at Syracuse University (such as the Whitman School of Management and the College of Engineering and Computer Science) as electives toward their MS/IM program.

### IV. Exit Requirement (3 to 9 credits)

- **IST 755 - Strategic Management of Information Resources 3 credit(s)**

\* As the capstone course, IST 755 must be taken after the completion of IST 614 and at least 24 credits in the degree program.

- **IST 971 - Internship in Information Studies 1-6 credit(s)**

\* For students with little or no appropriate experience as information professionals, students must register for at least 2 credits and no more than 6 credits of internship or cooperative education credits.

## Waiver Policy:

- Students with more than one year of full-time professional IT experience in the information

technology field may waive the internship requirement (experience may be audited). This waiver will not reduce the total credits required for the IM degree but will allow the student to take other course electives to fulfill the credit requirements for the degree.

- Students with a minimum of three years of full-time work experience in the IT field, may petition to reduce the credit requirement of the program by three credits, substituted by work experience, which will be audited. Students should consult Advising in Student Services regarding the procedures for this petition.

## Executive Track

### Master of Science in Information Management for Executives

## Contact:

Carsten Oesterlund, Program Director, 309 Hinds Hall, 315-443-2911, igrad@syr.edu

## Website:

Information Management for Executives

## Overview:

Our Executive IM program will confer a Master's of Science in Information Management on your diploma.

Students with six or more years of appropriate full-time professional management experience in the information management field and who demonstrate appropriate professional qualifications may apply to the Master of Science in Information Management Executive Program. Those accepted into the program may waive the internship requirement, and reduce the number of credits required for the degree to 30.

This degree program can be completed on campus, online, or through a combination of both options. Students take the same classes and learn from the same accomplished faculty members who teach in the 42-credit hour program. They can tailor their coursework to fill knowledge gaps or deepen their existing knowledge to develop a specialty.

To qualify for this program, applicants must demonstrate through both the extent and quality of their professional experience that they are strong candidates for leadership roles in the IM field. Applications will be evaluated on four dimensions to assess leadership potential and qualification for the executive program:

## Years of Professional Experience:

A minimum of six years is necessary to be considered for the executive degree program. In some cases more than six years of experience may be necessary to demonstrate the qualifications required for admission to the executive degree program.

## Appropriate Job Responsibilities:

The applicant's professional experience must be in one or more domains that are central to the IM field. (Examples are application development, database management, information security, network management, system integration, systems analysis, business process analysis, enterprise architecture, software engineering. Note that this list is not exhaustive.)

## Continually Increasing Responsibility:

The candidate must be able to demonstrate that his or her career shows a steady progression through increasingly responsible positions.

## Curriculum:

The 30-credit curriculum for students in the M.S. in Information Management: Executive Track will be determined in collaboration with an academic advisor and the program director, and includes:

1. Primary Core (9 credits)
2. Secondary Core (9 credits)
3. Electives (9 credits)
4. Exit Requirement (3 credits)

With the advisor's and program director's approval, qualified students may substitute advanced courses for introductory primary and secondary core courses.

(Courses, other than those listed below, may apply to any track. Students should review the full iSchool curriculum and make requests for substitutions, as appropriate. Students should consult Advising in Student Services for these requests.)

### I. Primary Core (9 credits)

#### Management and Financial Track

- **IST 585 - Knowledge Management 3 credit(s)**

- **IST 619 - Applied Economics for Information Managers 3 credit(s)**
- **IST 625 - Enterprise Risk Management 3 credit(s)**
- **IST 645 - Managing Information Systems Projects 3 credit(s)**
- **IST 673 - Strategic Planning in an Information-Based Organization 3 credit(s)**
- **IST 683 - Managing Information Technology-Enabled Change 3 credit(s)**
- **IST 726 - Enterprise Architecture: Concepts and Practice 3 credit(s)**
- **IST 727 - Information Technology Capital Planning 3 credit(s)**
- **IST 745 - Project Portfolio and Program Management 3 credit(s)**
- **IST 775 - Information Industry Strategies 3 credit(s)**

#### Policy Track

- **IST 618 - Information Policy 3 credit(s)**
- **IST 686 - Social Media in the Enterprise 3 credit(s)**
- **IST 711 - e-Government 3 credit(s)**
- **IST 728 - Information Security Policy 3 credit(s)**
- **IST 735 - Copyright for Information Professionals 3 credit(s)**

### II. Secondary Core (9 credits)

#### Systems Solution Track

- **IST 585 - Knowledge Management 3 credit(s)**
- **IST 625 - Enterprise Risk Management 3 credit(s)**
- **IST 642 - Electronic Commerce 3 credit(s)**
- **IST 645 - Managing Information Systems Projects 3 credit(s)**
- **IST 654 - Information Systems Analysis 3 credit(s)**
- **IST 679 - Electronic Commerce Technologies 3 credit(s)**
- **IST 683 - Managing Information Technology-Enabled Change 3 credit(s)**
- **IST 711 - e-Government 3 credit(s)**
- **IST 726 - Enterprise Architecture:**

## GRADUATE COURSE CATALOG

### Concepts and Practice 3 credit(s)

- **IST 745 - Project Portfolio and Program Management 3 credit(s)**

### Technological Infrastructure Track

- **IST 522 - Applied Information Security 3 credit(s)**
- **IST 558 - Technologies in Web Content Management 3 credit(s)**
- **IST 565 - Data Mining 3 credit(s)**
- **IST 623 - Introduction to Information Security 3 credit(s)**
- **IST 634 - Security in Networked Environments 3 credit(s)**
- **IST 639 - Enterprise Technologies 3 credit(s)**
- **IST 656 - Telecommunications and Enterprise Network Management II 3 credit(s)**
- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**
- **IST 679 - Electronic Commerce Technologies 3 credit(s)**
- **IST 700 - Selected Topic 0-6 credit(s)**
- **IST 722 - Data Warehouse 3 credit(s)**
- **IST 724 - Database Security 3 credit(s)**
- **IST 769 - Advanced Database Administration Concepts and Database Management 3 credit(s)**

### User Information Needs Track

- **IST 553 - Information Architecture for Internet Services 3 credit(s)**
- **IST 617 - Motivational Aspects of Information Use 3 credit(s)**
- **IST 626 - Business Information Resources and Strategic Intelligence 3 credit(s)**
- **IST 629 - Organizational Information Security 3 credit(s)**
- **IST 631 - Theory of Classification and Subject Representation 3 credit(s)**
- **IST 634 - Security in Networked Environments 3 credit(s)**
- **IST 641 - User-Based Design 3 credit(s)**
- **IST 649 - Human Interaction with Computers 3 credit(s)**
- **IST 662 - Instructional Strategies and**

### Techniques for Information Professionals 3 credit(s)

- **IST 683 - Managing Information Technology-Enabled Change 3 credit(s)**
- **IST 800 - Information Studies Seminar 1-3 credit(s)**

### III. Electives (9 credits)

Students have a broad range of electives to choose from, including those available for students in the school's other master's degree programs. In addition to formal courses, students may fashion an independent study by collaborating with a faculty member.

### IV. Exit Requirement (3 credits)

- **IST 755 - Strategic Management of Information Resources 3 credit(s)**

## Library and Information Science, MS

### Contact:

Jill Hurst-Wahl, Program Director, 208 Hinds Hall,  
(315) 443-1070, igrad@syr.edu

### Website:

Library & Information Science

### Overview:

As part of the School of Information Studies, the Library and Information Science (LIS) program provides thorough grounding in the knowledge, skills, and values of librarianship within the context of an interdisciplinary faculty. LIS coursework stresses both the theory and practice of library science. It includes educational opportunities beyond formal coursework through one-on-one interaction with the faculty; hands-on learning in libraries and information centers; exposure to leaders in the profession; and direct participation in research projects. The program is offered in both campus and distance learning formats and can be completed on a full-time or part-time basis. Our LIS program graduates librarians who are prepared to assume leadership roles in the libraries, information centers, and the broader information environment.

Three themes run through the LIS curriculum:

- Focus on the users of library and information services. Keeping the needs of users-and potential users-of library and information services in the foreground is a fundamental value of librarianship.

- Use technology to provide exemplary library and information services. Librarians need to be able to use technology effectively to provide quality library and information services.
- Manage information services and systems. Librarians in the 21st century must be competent managers of information, capable of innovation, efficiency, and leadership to meet the needs of their clientele.

### Curriculum:

The 36-credit LIS curriculum is designed to prepare librarians who have the broad range of knowledge and skills needed for exemplary practice in the library and information profession. Students in the School Media Program should consult the School Media specific curriculum, as there are no electives due to each course being required to meet NY State Education Department requirements for certification.

### I. Core Knowledge and Skills (19 credits)

LIS core courses provide a solid grounding in the knowledge, skills, and values of the library and information profession. The 19-credit LIS core has three parts:

#### Introductory Core (4 credits)

- **IST 511 - Introduction to the Library and Information Profession 3 credit(s)** (gateway course)
- **IST 601 - Information and Information Environments 1 credit(s)**

#### Information Resources Core (9 credits)

- **IST 605 - Reference and Information Literacy Services 3 credit(s)**
- **IST 613 - Library Planning, Marketing, and Assessment 3 credit(s)**
- **IST 616 - Information Resources: Organization and Access 3 credit(s)**

#### Management and Policy Core (6 credits)

- **IST 614 - Management Principles for Information Professionals 3 credit(s)** (Note: school media students take IST 661 instead)
- **IST 618 - Information Policy 3 credit(s)**

### II. Electives (14 credits)

14 credits of electives allow students to extend their core knowledge and skills in directions

## GRADUATE COURSE CATALOG

of their choice. Electives can be selected from graduate courses in the iSchool, including those from the Information Management program. In selecting courses that are not LIS-focused, the student should consult with his/her faculty advisor to ensure their appropriateness. A student should consider how any elective will add to his/her knowledge and skill set as an emerging professional.

- **IST 502 - New Directions in Academic Libraries 1-3 credit(s)**
- **IST 503 - Proposal Writing for the Information Field 1 credit(s)**
- **IST 553 - Information Architecture for Internet Services 3 credit(s)**
- **IST 556 - Mobile Network Services 3 credit(s)**
- **IST 558 - Technologies in Web Content Management 3 credit(s)**
- **IST 564 - Library & Information Services to Students with Disabilities 3 credit(s)**
- **IST 565 - Data Mining 3 credit(s)**
- **IST 585 - Knowledge Management 3 credit(s)**
- **IST 604 - Cataloging of Information Resources 3 credit(s)**
- **IST 606 - Legal Information Resources and Services 3 credit(s)**
- **IST 609 - Biomedical Information Services and Sources 3 credit(s)**
- **IST 611 - Information Technologies in Educational Organizations 3 credit(s)**
- **IST 612 - Youth Services in Libraries and Information Centers 3 credit(s)**
- **IST 617 - Motivational Aspects of Information Use 3 credit(s)**
- **IST 619 - Applied Economics for Information Managers 3 credit(s)**
- **IST 622 - Introduction to Preservation of Cultural Heritage 3 credit(s)**
- **IST 624 - Preservation of Library and Archival Collections 3 credit(s)**
- **IST 625 - Enterprise Risk Management 3 credit(s)**
- **IST 626 - Business Information Resources and Strategic Intelligence 3 credit(s)**
- **IST 628 - Organization/Management of Archival Collections 3 credit(s)**
- **IST 631 - Theory of Classification and**

### **Subject Representation 3 credit(s)**

- **IST 632 - Management and Organization of Special Collections 3 credit(s)**
- **IST 635 - Collection Development and Access 3 credit(s)**
- **IST 637 - Digital Information Retrieval Services 3 credit(s)**
- **IST 638 - Indexing and Abstracting Systems and Services 3 credit(s)**
- **IST 639 - Enterprise Technologies 3 credit(s)**
- **IST 641 - User-Based Design 3 credit(s)**
- **IST 642 - Electronic Commerce 3 credit(s)**
- **IST 645 - Managing Information Systems Projects 3 credit(s)**
- **IST 646 - Storytelling for Information Professionals 3 credit(s)**
- **IST 649 - Human Interaction with Computers 3 credit(s)**
- **IST 653 - Telecommunications and Enterprise Network Management I 3 credit(s)**
- **IST 656 - Telecommunications and Enterprise Network Management II 3 credit(s)**
- **IST 657 - Basics of Information Retrieval Systems 3 credit(s)**
- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**
- **IST 661 - Managing a School Library 3 credit(s)**
- **IST 662 - Instructional Strategies and Techniques for Information Professionals 3 credit(s)**
- **IST 664 - Natural Language Processing 3 credit(s)**
- **IST 667 - Information Technology for Libraries and Information Centers 3 credit(s)**
- **IST 668 - Literacy Through School Libraries 3 credit(s)**
- **IST 673 - Strategic Planning in an Information-Based Organization 3 credit(s)**
- **IST 676 - Foundations of Digital Data 1-3 credit(s)**
- **IST 677 - Creating, Managing, and**

### **Preserving Digital Assets 3 credit(s)**

- **IST 679 - Electronic Commerce Technologies 3 credit(s)**
- **IST 685 - Social Networks in Libraries 3 credit(s)**
- **IST 715 - LAMS: Libraries, Archives, Museums 3 credit(s)**
- **IST 717 - Advanced Library Management 3 credit(s)**
- **IST 735 - Copyright for Information Professionals 3 credit(s)**
- **IST 753 - Telecommunications and Enterprise Network Management III 3 credit(s)**
- **IST 759 - Planning and Designing Digital Library Services 3 credit(s)**

### III. Exit Requirement (3 credits)

The exit requirement for the LIS degree is a three-credit internship or independent study.

#### A. Internship:

The internship treated as another course in terms of the intensity and depth of the knowledge sought. Most students choose this option for their exit requirement even if they have had prior library work experience. An internship comprises 150 hours of work on site (or virtually) for 3 credits. Internships can be done locally in the Syracuse area, nationally, and even internationally. The student must be under the supervision of a professional librarian or information manager, although this does not mean that the student can't work with non-professionals as part of the experience. Most internships involve some general orientation, some work practice, and often a special project. Each experience is different and the student designs the internship contract in cooperation with the site supervisor, the faculty internship supervisor, and his or her academic advisor. An internship may be paid or unpaid.

- **IST 971 - Internship in Information Studies 1-6 credit(s)**

#### B. Independent Readings and Research:

Students who already possess significant/professional work experience in libraries or information centers may elect to do a culminating project as an independent study or readings and research in place of an internship. No more than 12 credits of a student's program can be taken as independent study or internship.

### Programs of Study for Specific

## GRADUATE COURSE CATALOG

### Types of Libraries or Library Positions:

The generalist core provides a solid grounding in the knowledge and skills of librarianship. Most electives are designed to provide conceptual and practical knowledge and skills that apply across types of libraries. For students wishing to prepare for a specific type of library or position, there are many ways to tailor your program of study to these interests. These include:

- Choosing topics pertaining to your areas of interest for papers and projects in core and elective courses.
- Choosing an iSchool Certificate of Advanced Study to combine with the master's degree.
- Choosing electives that are particularly appropriate for a particular type of library or position: see the section on advising guides below.
- Developing an internship that gives you practical experience in your area of interest.
- Taking an independent study in your area of interest.

Your advisor can work with you to plan a program of study that will prepare you for positions in your area of interest while also providing you with a solid generalist knowledge that will allow you to take advantage of unexpected opportunities.

### Library and Information Science: School Media, MS

#### Contact:

Jill Hurst-Wahl, Program Director, 208 Hinds Hall, (315) 443-1070, [igrad@syr.edu](mailto:igrad@syr.edu)

#### Website:

[Library & Information Science: School Media](#)

#### Overview:

The School Media program is a major specialization within the Library and Information Science (LIS) program and requires that students meet not only the core LIS requirements, but also specified coursework in information literacy, youth services, information technology in schools, literacy and reading support, and management in school libraries. School librarians provide active curriculum support services and library and information skills instruction in elementary and secondary school settings. School librarians serve as intermediaries between the information

needs of students, faculty, administration, and community and the information systems and resources required to fulfill those needs. In this capacity, school librarians provide print and non-print media in support of the curriculum; collaborate with classroom teachers by teaching research/information literacy skills in the context of the general curriculum; guide students in selecting reading materials and provide literacy support; introduce and facilitate effective use and delivery of current and emerging technologies; and implement a range of 21st century skills-based programs and services.

The traditional role of school librarians has expanded to include:

- collection management based on a unified media concept;
- teaching, support, and guidance in the use of information resources from a problem-solving perspective;
- promotion of print, media, and digital literacy;
- curriculum consultation and technology innovation;
- information management beyond the walls of the centralized library facility; and program management.

The current educational focus on lifetime learning, critical thinking skills, and multiple literacies directly links overall educational goals to the services and resources of the school library program.

The nationally ranked (U.S. News & World Report) School Media Program at Syracuse University prepares students for the exciting and challenging role of the school librarian. In conjunction with the area of Instructional Design, Development, and Evaluation at the School of Education, the School of Information Studies has developed a competency-based academic program, accredited by the state of New York and leading to New York State certification as a school library media specialist.

The program requires the demonstration of competency in a number of specific tasks that are grouped into the following functional areas:

- Administration
- Design, development, and delivery of instruction
- Selection of media and information provision
- Organization and logistics
- Production and utilization of media
- Research
- Communication and leadership

The LIS master's degree in school media also enables graduates to enter other specializations in the library profession. For example, in public libraries there is a critical need for librarians for

children and young adult services. In community college libraries, the need for librarians trained in teaching information and technology skills is high. Some school media students are choosing to become digital librarians in government and corporate settings. Students trained as school librarians are highly qualified for these and other library positions.

### Learning Outcomes:

By the time students complete the LIS School Media program, they will be able to demonstrate the following knowledge and skills:

Standard 1: Teaching for Learning

1. Knowledge of learners and learning
2. Effective and knowledgeable teacher
3. Instructional partner
4. Integration of twenty-first century skills and learning standards

Standard 2: Literacy and Reading

1. Literature
2. Reading promotion
3. Respect for diversity
4. Literacy strategies

Standard 3: Information and Knowledge

1. Efficient and ethical information-seeking behavior
2. Access to information
3. Information technology
4. Research and knowledge creation

Standard 4: Advocacy and Leadership

1. Networking with the library community
2. Professional development
3. Leadership
4. Advocacy

Standard 5: Program Management and Administration

1. Collections
2. Professional Ethics
3. Personnel, Funding, and Facilities
4. Strategic Planning and Assessment

### Curriculum:

The School Media program requires 37 credits for the MSLIS and completion of additional New York State certification requirements. Because of the specific knowledge and skills required by school librarians, all courses in the program are required—there are no school media electives. Students are required to take the following courses.



## GRADUATE COURSE CATALOG

### I. Introductory Courses (4 credits)

- **IST 511 - Introduction to the Library and Information Profession 3 credit(s)** (gateway course)
- **IST 601 - Information and Information Environments 1 credit(s)**

(IST 511 and IST 601 are required in the first semester of matriculation.)

### II. Information Resources Courses (9 credits)

- **IST 605 - Reference and Information Literacy Services 3 credit(s)**
- **IST 613 - Library Planning, Marketing, and Assessment 3 credit(s)**
- **IST 616 - Information Resources: Organization and Access 3 credit(s)**

### III. Management and Policy Courses (6 credits)

- **IST 618 - Information Policy 3 credit(s)**
- **IST 661 - Managing a School Library 3 credit(s)**

### IV. Other Required Coursework (15 credits)

- **IST 564 - Library & Information Services to Students with Disabilities 3 credit(s)**
- **IST 611 - Information Technologies in Educational Organizations 3 credit(s)**
- **IST 612 - Youth Services in Libraries and Information Centers 3 credit(s)**
- **IST 663 - Motivating 21st Century Learning in School Libraries 3 credit(s)**
- **IST 668 - Literacy Through School Libraries 3 credit(s)**

### V. Fieldwork (100 hours)

School media students must complete a total of 100 (non-credit) hours of fieldwork in elementary and secondary school libraries before their first practicum experience. A minimum of 15 hours must be with students with special needs.

### VI. School Media Practicum

Fully supervised and evaluated school-based library experiences at the elementary and secondary levels (120 hours each). Includes mandatory online seminar.

- **IST 972 - School Media Practicum 1-6 credit(s)**

### VII. Additional Requirements

Students must complete the school media competencies checklist at the beginning of the program, after their second fieldwork experience, after their first practicum experience, and after all coursework, fieldwork and practica have been completed. This instrument is used as a means for documenting student growth and as a guide for practicum placement.

### Additional Information

Upon completion of the School Media Program, combined with New York State requirements including (1) completion of the New York State child abuse, substance abuse, and violence prevention workshops; (2) the Child Health and Life Safety Prevention workshop (fire and arson prevention; highway safety and traffic regulations and school safety patrols; child abduction prevention; and prevention of alcohol, tobacco, and drug abuse); (3) fingerprinting; (4) Dignity for All Students Act (DASA) workshop; and (5) successful completion of the appropriate New York State certification exams, students will have fulfilled all the necessary requirements for certification as a school library media specialist in an elementary or secondary school in New York State. The School of Education, with approval from the School of Information Studies, will recommend a student for a New York State School Media Specialist initial certificate, preK-12, necessary for employment for New York State public schools and accepted for employment by most other states.

### Telecommunications and Network Management, MS

Carsten Oesterlund, Program Director, 309 Hinds Hall, 315-443-2911, [igrad@syr.edu](mailto:igrad@syr.edu)

### Website:

Telecommunications & Network Management

### Overview:

Networks are the information infrastructure of an enterprise. The networked global economy has revolutionized markets and reshaped public institutions. The strategic importance of data, voice, and video communications fuels a growing demand for professionals who combine knowledge of the network infrastructure with an understanding of applications and industry dynamics and an aptitude for effective project and technology management. With connectivity comes vulnerability, and this requires specialists who cannot only build a network, but who can also secure it.

The M.S. in Telecommunications and Network Management (TNM) is designed to meet these needs. It offers students a comprehensive and applied overview of networking technologies. Students get a hands-on and forward-looking knowledge of wired, wireless, and unified communications approaches. Students learn how to apply this knowledge to develop effective solutions that can achieve the strategic goals of the enterprise. Our faculty are familiar with the central connectivity and capacity issues that face large businesses, government entities, carriers, and network equipment providers. They have had practical experience in working with standards, government policies, laws, and regulations regarding networks of all kinds. Our faculty have also consulted with diverse organizations in both public and private sectors on infrastructure security approaches. The TNM program incorporates this experience into learning opportunities that can provide students a practical perspective on how to analyze, design, evaluate, and manage the total context of networking technology.

Courses give students flexibility to design a program that fits the students' career goals. There are classes in technology, management, industry, and policy. New courses are continuously added to enhance focus areas such as information security, mobility, and cloud/virtualization technology. As these courses are scheduled, students may request substitutions to the electives list below.

Students are also encouraged to develop study plans with consideration for obtaining a Certificate of Advanced Study in such areas as Information Security Management, or Data Science. The economic and policy aspects of the program stress the international environment as well as national and local markets. To complement their program, students may take courses in the College of Engineering and Computer Science, the Whitman School of Management, or the Maxwell School of Citizenship and Public Affairs.

Graduates of the TNM program fill an increasing demand for networking technology professionals who can keep up with this rapidly changing field without losing sight of market needs and the strategic value of information. Our graduates have positioned themselves in careers such as:

- Network and infrastructure engineers and managers
- Technical and marketing support specialists
- Industry and policy consultants
- IT auditors
- Information security specialists
- Entrepreneurs in the telecommunications and network industry
- Chief Technology Officers (CTOs)

# GRADUATE COURSE CATALOG

- Chief Information Officers (CIOs)

## Learning Outcomes:

By the time students complete the TNM program, they will be able to demonstrate:

1. Leadership in technology management
2. Strategic awareness of the industrial, legal and political environment
3. Technical knowledge and experience

Leadership in Technology Management means that students will be able to:

1. Integrate knowledge of communication technologies with appropriate policy, financial and management issues
2. Apply critical thinking skills and creativity to managerial problems
3. Generate solutions to human and/or technological problems using relevant technologies, theories, and concepts; to model, analyze and critique them; and to make recommendations
4. Communicate clearly, effectively and professionally in writing and in public presentations, and to engage in effective collaboration, leadership, and teamwork

Strategic Awareness of the Industrial, Legal and Political Environment means that students will be able to:

1. Articulate the basic issues of telecommunication and information policy, and the key governmental and regulatory processes affecting them, from a global perspective
2. Describe the political, economic and social forces shaping information and communication technologies
3. Analyze industry trends and evaluate their implications for stakeholders

Technical Knowledge and Experience means that students will be able to:

1. Demonstrate broad knowledge of the fundamental principles and technical standards underlying telecommunication, networking, and information technologies.
2. Architect and implement networked information systems
3. Continuously improve their technology knowledge and communication skills
4. Anticipate the way technological change and emerging technologies might alter the assumptions underlying architectures and systems

## Curriculum:

The curriculum requires completion of 36 credits.

The program must be completed within seven years. Most students finish the degree in two years. The program is available to part-time students and can be completed at the student's own pace through evening and online courses.

The 36-credit curriculum includes 19 credits of primary core requirements, 14 credits of electives, and a 3-credit exit requirement.

### I. Primary Core: (19 credits)

This set of courses orients students to the information profession, management, policy, and the field of telecommunications.

IST 601 and IST 653 are taken the first semester.

- **IST 601 - Information and Information Environments 1 credit(s)**
- **IST 614 - Management Principles for Information Professionals 3 credit(s)**
- **IST 618 - Information Policy 3 credit(s)**
- **IST 623 - Introduction to Information Security 3 credit(s)**
- **IST 653 - Telecommunications and Enterprise Network Management I 3 credit(s)**
- **IST 656 - Telecommunications and Enterprise Network Management II 3 credit(s)**
- **IST 753 - Telecommunications and Enterprise Network Management III 3 credit(s)**

### II. Electives: (14 credits)

Courses, other than those listed below, may apply as electives. Students should consult an academic advisor or the program director for these requests.[]

- **IST 522 - Applied Information Security 3 credit(s)**
- **IST 553 - Information Architecture for Internet Services 3 credit(s)**
- **IST 556 - Mobile Network Services 3 credit(s)**
- **IST 600 - Selected Topics 1-6 credit(s)**  
Mobile Application Design & Development
- **IST 600 - Selected Topics 1-3 credit(s)**  
Scripting Foundations
- **IST 619 - Applied Economics for Information Managers 3 credit(s)**
- **IST 625 - Enterprise Risk Management 3 credit(s)**
- **IST 627 - What's the Big Idea:**

**Technology Innovation 3 credit(s)**

- **IST 634 - Security in Networked Environments 3 credit(s)**
- **IST 639 - Enterprise Technologies 3 credit(s)**
- **IST 641 - User-Based Design 3 credit(s)**
- **IST 645 - Managing Information Systems Projects 3 credit(s)**
- **IST 648 - Enterprise Wireless Network Technologies 3 credit(s)**
- **IST 654 - Information Systems Analysis 3 credit(s)**
- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**
- **IST 679 - Electronic Commerce Technologies 3 credit(s)**
- **IST 683 - Managing Information Technology-Enabled Change 3 credit(s)**
- **IST 686 - Social Media in the Enterprise 3 credit(s)**
- **IST 687 - Applied Data Science 3 credit(s)**
- **IST 688 - Social Web Technologies 3 credit(s)**
- **IST 745 - Project Portfolio and Program Management 3 credit(s)**
- **IST 755 - Strategic Management of Information Resources 3 credit(s)**
- **IST 747 - Complex issues in IT Project Management 3 credit(s)**
- **IST 775 - Information Industry Strategies 3 credit(s)**
- **IST 776 - Research Methods in Information Science and Technology 3 credit(s)**
- **ELE 658 - Data Networks: Design and Performance 3 credit(s) \***

Note:

\* Programming electives from the College of Engineering and Computer Science can enhance studies. 6 total credits of electives can be taken in other SU schools.

### III. Exit Requirement: (3 credit hours)

- **IST 754 - Final Project in Telecommunications Systems 3 credit(s)**

The capstone course can only be taken after the

## GRADUATE COURSE CATALOG

completion of IST 601, IST 653, IST 614, IST 618, and at least 18 credits. This capstone course gives students an opportunity to synthesize what they have learned through the course of their studies.

### Doctorate

## Information Management, DPS

### Contact:

Dr. Steve Sawyer, Program Director, Hinds Hall,  
(315) 443-5630, profdoc@syr.edu

### Website:

Doctorate of Professional Studies

### Overview:

The Doctorate of Professional Studies in Information Management (DPS-IM) is a 51-credit, part-time program for working professionals interested in leadership and applied research in the information field. This 36-42 month program prepares innovators to be the catalyst for positive change within their organizations.

The Doctorate of Professional Studies (DPS) in Information Management program is designed for elite information professionals whose career trajectory is directed to taking on visible leadership in professional practice. This highly selective, non-traditional doctoral program accepts students who can establish powerful working partnerships between the iSchool and their own organizations.

### Distinctive Features:

- **Interactive Delivery Format:** Combines periodic brief residential periods with distance learning experiences; students remain working full time within their home organizations.
- **Centered on Apprenticeship:** Students immediately enter collaboration with the iSchool through shared projects with their faculty guidance committees and the iSchool leadership.
- **Research in Action:** Students sharpen their analytical, research, and critical thinking skills through a variety of instructional interactions with faculty.
- **Outcome Oriented:** The program focuses on showcasing these skills through professional writing of academic analyses.
- **Tailored Curriculum:** We undertake broad-based

development of the doctoral candidate through immersion in the activities and projects of faculty members and the school.

- **Personalized Mentoring and Professional Development:** Doctoral students enter with an appreciation of the role of information in the knowledge economy and leave with the tools, skills, and network to influence that economy.
- **Problem-Solving Orientation:** Gaining the necessary expertise and outlook prepares the student to address the issues and challenges faced by information-based organizations across the sectors of society.
- **In Situ Inquiry:** Explores the operations, environment, and people in a living organization.
- **Publication Quality Thesis:** May lead to enhanced visibility and recognition in the field through the production of a book, white papers, and other publications.

### Curriculum:

The Doctorate of Professional Studies in Information Management curriculum involves coursework, comprehensive examinations, and thesis research completed over 36-42 months starting at the beginning of a summer semester.

The 51-credit Program of study involves:

- Intensive residential seminars each semester
- Gateway/orientation learning experience
- Methods courses and workshops
- Practical courses selected from our graduate curricula in Library Science, Information Management, or Telecommunications and Network Management
- Advanced courses, possibly leading to the completion of a Certificate of Advanced Study in addition to the doctoral degree
- Thesis hours - close faculty mentoring over thesis development

The degree program begins with an intensive residential Intensive Seminar and Methods Workshop at the beginning of the summer semester (usually in May) for the year in which a student is admitted. During the first residential seminar, students will become more familiar with the program's coursework, faculty, technology, and each other.

### Additional Information

Note the final year of the program may extend to 18 months, as it is recognized professional or personal circumstances may require some flexibility in completing degree requirements.

## Information Science and Technology, PhD

### Contact:

Dr. Steve Sawyer, Program Director, 344 Hinds Hall, (315) 443-6147, istphd@syr.edu

### Website:

Ph.D. in Information Science and Technology

### Overview:

The Ph.D. in Information Science and Technology at Syracuse University's School of Information Studies is a research degree, one that prepares its graduates to address information-related phenomena in a broad range of diverse settings and across a wide range of analytic frames spanning technological, individual, organizational, societal, political perspectives.

The Information Science and Technology Ph.D. program is interdisciplinary, bringing together relevant knowledge and methods from information science, the behavioral and social sciences, organization studies, economics, computer science, linguistics, communications, law and public policy. Graduates of the Ph.D. in Information Science and Technology are world-renown for their excellence in the advancement and dissemination of new knowledge, both basic and applied, regarding the designs, uses and evaluation of information systems, services, and policies for individuals, for groups, for private-sector firms, and for nonprofit and governmental organizations.

The Ph.D. students in our program represent a wide range of education, training, experience and expertise that includes:

- **Information and Society:** information and public policy, societal change and information and communication technologies (ICT), e-government, digital inequities, media convergence, community networks, libraries and access
- **Information and Organizations:** new forms of digitally-enabled organizing, ICT governance e-commerce, technology-driven innovation/change, ICT-enabled organizations
- **Information and Individuals:** human-computer interaction, information-seeking behavior, medical informatics
- **Information Systems:** design, survivability, security
- **Information Technology:** emerging technologies, wireless networks, natural language processing, middleware, information visualization.

## GRADUATE COURSE CATALOG

- Information Organization and Access: data science and massive data sets, metadata, representation, knowledge discovery, information retrieval, image retrieval
- Networked Information: digital libraries, distribution of public information, digital reference
- Information and Education: digital literacy, e-learning, school library media, asynchronous learning networks

Since the program began in 1969, over 110 students have earned their Ph.D.

- More than half of these graduates pursue careers in academic and research institutions.
- About 25% of the PhD program's graduates pursue successful careers in information-related industries as entrepreneurs, consultants and policy experts.
- About 25% of the PhD program graduates enter governmental organizations in policy, technology and organizational leadership roles.

We are delighted that so many remain in contact with the faculty, the iSchool and other PhD program graduates.

### Admission:

Admission requirements include a bachelor's degree from an accredited institution in a broadly relevant area; GRE scores of 150 for Math and 162 for Verbal (equivalent to 600s on the old scoring scale) and an analytic writing score of at least four (4); TOEFL scores above 600 for students whose first language is not English; academic transcripts, three letters of recommendations from people who can evaluate the research potentials of the applicants; at least one writing sample; a current CV or resume; and a personal statement of research interests. Although not a requirement, most admitted students also have a master's degree. In making decisions about admission, the committee considers an applicant's career goals, motivation, research interests and potential fit to the faculty's expertise, prior education and work experiences, evidence of research preparation and experiences, and oral and written communication skills. Applications are considered for the fall semester only. The deadline for receipt of the completed application is early January.

The PhD in Information Science and Technology is a full-time, residential program. Students will need to commit to moving to Syracuse for at least four years (and often five). The program of study is designed to maximize informal interaction and the apprentice-style of learning that is the hallmark of excellent PhD programs. The goal of the faculty of the School of Information Studies is to develop future peers through the PhD program, to advance

knowledge for society through impactful research, to train the next generation of scholars, and to ensure that the graduates of this PhD program excel at what they choose to pursue!

### Learning Outcomes:

Successful Ph.D. graduates will have the following set of skills and knowledge in:

1. Comprehensive Mastery of a body of knowledge: Demonstrate mastery of the body of knowledge and research methods of a defined scholarly field and its relation to the interdisciplinary study of information science and technology. Given the interdisciplinary nature of the PhD in Information Science and Technology, comprehensive mastery includes both an assessment of the depth of knowledge in the focal area of one's dissertation along with an assessment of a broader range of overlapping intellectual spaces. This combination of breadth and depth is the distinguishing characteristic of interdisciplinary PhD programs and reflects a set of analytic skills and command of a breadth of knowledge beyond what disciplinary PhD programs provide (or expect).
2. Expertise with Research Design, Data Collection and Data Analysis methods: Demonstrate the ability to independently plan, design, execute, and report a scholarly research project.
3. Competence with leading a college course and designing engaging learning experiences: Demonstrate the ability to plan and deliver instructional experiences at the post-secondary level.
4. Prepared for Professional Practices: Demonstrate knowledge of the professional norms, practices, and ethical standards of a defined scholarly field.
5. Pursue Academic Life: Demonstrate the ability to participate as an active contributor in the academic life as a faculty member or researcher.

### Curriculum:

The program requires 78 credits post-baccalaureate. Up to 30 of these credits can be transferred in for PhD students with a relevant MS degree. Thus, most PhD students need to complete 48 credits while at Syracuse.

Typically, 18 of their credits are devoted to the PhD thesis - the culminating and critical component of the Ph.D. in Information Science and Technology.

- **IST 999 - Dissertation 1-15 credit(s)**

### The Remaining 30 credits

The remaining 30 credits are taken through a combination of research methods courses, research seminars, and topical courses so as to maximize the PhD student's ability to achieve mastery, advance their research skills, and develop as a college teacher.

- IST 801 - Doctoral Gateway Seminar
- **IST 776 - Research Methods in Information Science and Technology 3 credit(s)**
- **IST 777 - Statistical Methods in Information Science and Technology 3 credit(s)**
- **IST 790 - Advanced Topics in Information Organization 1-3 credit(s)**
- **IST 820 - Seminar in Research Methods 3 credit(s)**
- **IST 830 - Seminar in Information Systems 3 credit(s)**

### 12 Credits of Research and Teaching Practica

As such, the program is very flexible and can be constructed to meet individual student's unique need. The only formal requirement is that PhD students must complete 12 credits of research and teaching practica (which typically takes four semesters). These practica are apprentice-like experiences working one-on-one with faculty - these serve as the foundation of the PhD in Information Science and Technology and are the common experience shared by all students in the program.

- **IST 810 - Practicum in Research 2 credit(s)**
- **IST 840 - Practicum in Teaching 1-2 credit(s)**

### Additional Information

Given the nature of the PhD, the total number of credits accumulated (at Syracuse or elsewhere) is not a major consideration in a student's progress through the program. Instead, what matters is a student's mastery of the skills needed to become an independent, productive researcher. While coursework completed elsewhere may decrease the number of credits that must be earned at Syracuse, it may not necessarily decrease the length of a student's program.

To move from taking courses to pursuing dissertation research, PhD students must showcase their comprehensive mastery of their field of study and research skills in a process we call "end of coursework" or "EOC." The EOC requires both a written case to be made as

## GRADUATE COURSE CATALOG

to why the PhD student is prepared to move forward, followed by an oral defense of their case (typically in the third year of study). Students who successfully complete EOC are admitted to PhD candidacy. After that, a dissertation proposal and then a dissertation must be presented and defended. Students are expected to defend their dissertation in their fifth year of study.

### Combined Degree

## Library and Information Science, JD/MS

### Degree Requirements

The Juris Doctor/Master of Science in Library and Information Science is a combined degree which may be conferred by the School of Information Studies and the College of Law. 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### Certificate of Advanced Study

## Cultural Heritage Preservation, CAS

### Contact:

Jill Hurst-Wahl, Program Director, 208 Hinds Hall, (315) 443-1070, [igrad@syr.edu](mailto:igrad@syr.edu)

### Website:

Cultural Heritage Preservation

### Overview:

The Certificate of Advanced Study in Cultural Heritage Preservation is a 15-credit hour, graduate-level certificate designed for students currently pursuing another graduate degree or as post-baccalaureate work. This program is only offered to campus-based students. Housed in the iSchool, the program is an interdisciplinary collaboration between Information Studies,

Anthropology, and Museum Studies.

Recipients of the Cultural Heritage certificate are provided with an interdisciplinary grounding in the preservation of cultural heritage. This includes opportunities to focus on such areas as:

- the application of digital approaches to heritage preservation;
- the basics of historic site preservation;
- the management and interpretation of cultural resources; and
- the collection, preservation, and curation of archeological artifacts, archival materials, ethnographic data, and museum collections.

The certificate program is intended to prepare students to work with organizations such as libraries, museums, National Parks, and State and local agencies in preserving cultural resources.

The Certificate of Advanced Study in Cultural Heritage Preservation requires the completion of 15 credits: 3 units of required courses, 6-9 units of elective courses, 3-6 units of internships.

Because students enter the program with different educational and experiential backgrounds, they will work with program advisors to determine the most appropriate ratio of coursework to internships.

### Curriculum:

#### I. Required Courses (3 credits)

- **IST 622 - Introduction to Preservation of Cultural Heritage 3 credit(s)**

#### II. Electives (6-9 credits)

Students will complete three of the following elective courses. At least two of the three courses must be from outside of the student's primary program of study:

- **ANT 644 - Laboratory Analysis in Archaeology 3 credit(s)**
- **ANT 682 - Life Histories/Narratives 3 credit(s)**
- **ANT 645 - Public Policy and Archaeology 3 credit(s)**
- ANT 461 - Museums and Native Americas 3 credit(s)
- **IST 616 - Information Resources: Organization and Access 3 credit(s)**
- **IST 624 - Preservation of Library and Archival Collections 3 credit(s)**
- **IST 628 - Organization/Management of Archival Collections 3 credit(s)**
- **IST 632 - Management and Organization**

#### of Special Collections 3 credit(s)

- **IST 677 - Creating, Managing, and Preserving Digital Assets 3 credit(s)**
- **IST 715 - LAMS: Libraries, Archives, Museums 3 credit(s)**
- **MUS 500 - Selected Topics 1-6 credit(s)**
- **MUS 506 - Introduction to Curatorship 3 credit(s)**
- **MUS 607 - Collections Management 3 credit(s)**
- **MUS 703 - Advanced Curatorship 3 credit(s)**

#### Other Courses for Elective Credit(s)

With consent of program advisors, a student may petition to substitute other courses for elective credit towards the CAS.

### III. Internship (3-6 credits)

Two 150-hour internships are also required.

Students will work at an institution, agency, or community organization for two 150-hour internships.

These may be at the same organization or at two different organizations, but should be completed in different semesters. Students will report to both an on-site supervisor and a faculty internship advisor during the process, and the on-site supervisor will evaluate the student's activities at the end of each semester.

The faculty internship advisor can be a faculty member from Information Studies, Museum Studies, or Anthropology. The internships may be taken either as ANT 670, MUS 670, or IST 971, or upon approval of the appropriate program advisor. By petition, the student may receive 150 hours of credit upon completion.

### IV. Summation

In their final semester students will:

1. Bring together documentation (e.g., papers, internship projects, presentations) into a portfolio that will adequately present their accomplishments and contributions during their course of study and internship experiences and;
2. Write a paper reflecting on their education and preparation for a professional position.

This summation is a requirement for the completion of the CAS degree.

## GRADUATE COURSE CATALOG

### Data Science, CAS

#### Contact:

Carsten Oesterlund, Program Director, 309 Hinds Hall, (315) 443-2911, [igrad@syr.edu](mailto:igrad@syr.edu)

#### Website:

Data Science

#### Overview:

The Certificate of Advanced Study (CAS) in Data Science program requires 15 credit hours covering specific focus areas of digital curation, data science education, and information analytics. It comprises 2 Core Courses (6 credits) in databases and data science. The remaining credits (9) are elective credits to be selected from such areas as communication and collaboration, digital curation, digital libraries, information assurance, project management, mashups, research, scripting, statistics, technologies, and visualization.

All candidates should have a bachelor's degree or equivalent. In addition, it is recommended that potential students have a strong background in science, statistics, research, and/or information technology. Applicants should have an interest in interdisciplinary work focused on managing big data using information technologies as tools. Prospective students who have an interest in data science, but lack the recommended undergraduate background, are encouraged to inquire. Individual consultations are available for such prospective students to explore their potential candidacy.

#### Curriculum:

##### I. Required Courses (6 credits)

- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**
- **IST 687 - Applied Data Science 3 credit(s)**

##### II. Elective Courses (9 credits)

- **IST 553 - Information Architecture for Internet Services 3 credit(s)**
- **IST 558 - Technologies in Web Content Management 3 credit(s)**
- **IST 565 - Data Mining 3 credit(s)**
- **IST 639 - Enterprise Technologies 3 credit(s)**
- **IST 645 - Managing Information Systems**

#### Projects 3 credit(s)

- **IST 654 - Information Systems Analysis 3 credit(s)**
- **IST 657 - Basics of Information Retrieval Systems 3 credit(s)**
- **IST 664 - Natural Language Processing 3 credit(s)**
- **IST 676 - Foundations of Digital Data 1-3 credit(s)**
- **IST 677 - Creating, Managing, and Preserving Digital Assets 3 credit(s)**
- **IST 681 - Metadata 3 credit(s)**
- **IST 718 - Advanced Information Analytics 3 credit(s)**
- **IST 719 - Information Visualization 3 credit(s)**
- **IST 722 - Data Warehouse 3 credit(s)**
- **IST 736 - Text Mining 3 credit(s)**
- **IST 769 - Advanced Database Administration Concepts and Database Management 3 credit(s)**
- **IST 776 - Research Methods in Information Science and Technology 3 credit(s)**
- **IST 777 - Statistical Methods in Information Science and Technology 3 credit(s)**

### E-Government Management and Leadership, CAS

#### Contact:

Margaret Lane, Asst. Director of Executive Education, 315-443-8708

<http://ischool.syr.edu/future/cas/egov.aspx>

#### Certificate Requirement

The E-Government Management and Leadership Certificate of Advance Study is a 12-credit graduate-level certificate designed for students currently pursuing another graduate degree or as post-baccalaureate work. The CAS is organized by two broad thematic areas:

1. leadership and management of information and communication technology applications found in public organization E-government systems, and
2. technical design aspects of E-government in

public organizations. There are two required courses for this degree:

- **IST 711 - e-Government 3 credit(s)**
- **PAI 895 - Mid-career Training Group 1-3 credit(s)**

### Information Security Management, CAS

#### Contact:

Carsten Oesterlund, Program Director, 309 Hinds Hall, 315-443-2911, [igrad@syr.edu](mailto:igrad@syr.edu)

#### Website:

Information Security Management

#### Overview:

Information is a critical asset within an organization. Lives and livelihoods depend on the continuation of information systems and their correct operation. With the increasing complexities of today's hardware, software, and their networking, the need for managing enterprise security becomes more pressing. Information Security Management (ISM) can be defined as the comprehensive skills that manage a high degree of complex technical security, increased operational costs, and diverse policies and user behavior. Senior executives, IT managers, and technical staffs need well-educated, strong skills in ISM for their organizations.

The Certificate of Advanced Study in Information Security Management offers a comprehensive set of skills for information security management, enabling students to take a lead role in the area within their organizations. The 15-credit program provides students with the flexibility to take coursework that does not overlap with their current expertise but gives them tools in information security technology, policy, risk management, and evaluation, depending on their background.

This certificate is offered in both campus and distance learning formats, and can be completed as a full-time or part-time student. The certificate is available to those with or without experience in the information technology field. Applicants may be currently working in a related field, or they may be interested in making a career change into the information security field. The certificate also provides an opportunity for professional development and serves as a foundation for career advancement.

## GRADUATE COURSE CATALOG

### Curriculum:

The certificate requires 15 graduate credits. All courses are 3 graduate credits unless specified otherwise.

#### I. Required Core (3 credits)

- **IST 623 - Introduction to Information Security 3 credit(s)**

#### Note:

\* Security courses, other than those listed below, may apply. Students should review other security courses on the course schedule for possible substitution, as appropriate. Students should consult Advising in Student Services for these requests.

#### II. Management Security (at least 3 credits)

- **IST 600 - Selected Topics 1-6 credit(s)**
- IST 600 - Selected Topics 1-3 credit(s)  
Information Management for Critical Infrastructure Protection
- **IST 602 - Digital Forensics 3 credit(s)**
- **IST 625 - Enterprise Risk Management 3 credit(s)**
- **IST 629 - Organizational Information Security 3 credit(s)**
- **IST 725 - Information Technology Security Architecture 3 credit(s)**
- **IST 728 - Information Security Policy 3 credit(s)**

#### III. Technology Security (at least 3 credits)

- **IST 522 - Applied Information Security 3 credit(s)**
- **IST 634 - Security in Networked Environments 3 credit(s)**
- **IST 724 - Database Security 3 credit(s)**
- **CIS 643 - Computer Security 3 credit(s)**
- **CIS 644 - Internet Security 3 credit(s)**
- **CIS 774 - Principles of Distributed Access Control 3 credit(s)**

#### IV. Information Studies (6 credits)

An additional 6 credit hours from the Management Security or Technology Security course lists above or from any of the below courses:

- **IST 618 - Information Policy 3 credit(s)**

- **IST 639 - Enterprise Technologies 3 credit(s)**
- **IST 642 - Electronic Commerce 3 credit(s)**
- **IST 645 - Managing Information Systems Projects 3 credit(s)**
- **IST 656 - Telecommunications and Enterprise Network Management II 3 credit(s)**
- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**
- **IST 679 - Electronic Commerce Technologies 3 credit(s)**
- **IST 690 - Independent Study 1-6 credit(s)**
- **IST 971 - Internship in Information Studies 1-6 credit(s)**

### Scholarship Opportunity:

Students who are citizens of the United States are eligible to apply for a grant through the Department of Defense Information Assurance Scholarship Program (IASP).

### Earn a Master's Degree:

Participants in the certificate program have the option of applying these graduate credits toward a master's degree offered at the School of Information Studies. All 15 credits completed for the certificate can be included in the 42-credit requirement Master of Science in Information Management or 36-credit Master of Science in Telecommunications and Network Management. Selective credits may be applied to the 36-credit Master of Science in Library and Information Science.

## Information Systems and Telecommunications Management, CAS

### Contact:

Carsten Oesterlund, Program Director, 309 Hinds Hall, 315-443-2911, igrad@syr.edu

### Website:

Information Systems and Telecommunication

### Overview:

Managing the information systems and telecommunications functions has become

critical to all organizations. The 15-credit graduate certificate program in information systems and telecommunications management (IS&TM) enables you to advance your present career or discover new options in the dynamic, challenging field of information systems management and telecommunications. With this program, you can expand your career options and gain a competitive advantage in pursuing career opportunities in business, government, or not-for-profit organizations.

The certificate stands alone; however, after successful completion, you have the option of continuing to earn a master's degree in information management or in telecommunications and network management.

The graduate certificate in information systems and telecommunications management (IS&TM) equips you with an understanding of key issues in the fields of information and telecommunications management, including:

- Management and implementation of rapidly changing information technologies
- Database management and administration
- Management of local and wide-area networks and the challenge of global interconnectivity
- Harnessing information resources to improve organizational effectiveness, including decision making, problem solving, strategic planning, marketing, and budgeting processes
- Project management processes and challenges of outsourcing
- Systems integration
- Website design and management, including information architecture
- State-of-the-art applications in computer, telecommunications, and information technologies

### Curriculum:

To earn the IS&TM certificate, students must complete 15 graduate credits.

#### I. Certificate Core (3 - 4 credits)

All Students must take IST 601 and either IST 621 or IST 653

- **IST 601 - Information and Information Environments 1 credit(s)**
- **IST 621 - Introduction to Information Management 3 credit(s)**
- **IST 653 - Telecommunications and Enterprise Network Management I 3 credit(s)**

## GRADUATE COURSE CATALOG

### Note:

Students wanting a general preparation in both information systems management and telecommunications management may wish to take both introductory courses, substituting one for an elective below.

### II. Certificate Electives (11 - 12 credits)

- **IST 553 - Information Architecture for Internet Services 3 credit(s)**
- **IST 645 - Managing Information Systems Projects 3 credit(s)**
- **IST 654 - Information Systems Analysis 3 credit(s)**
- **IST 656 - Telecommunications and Enterprise Network Management II 3 credit(s)**
- **IST 659 - Data Administration Concepts and Database Management 3 credit(s)**
- **IST 673 - Strategic Planning in an Information-Based Organization 3 credit(s)**
- **IST 683 - Managing Information Technology-Enabled Change 3 credit(s)**
- **IST 775 - Information Industry Strategies 3 credit(s)**

### Additional Information

Other graduate courses offered during the spring and fall, or in the summer, may be used as electives with the approval of the program director.

### Earn a Master's Degree:

Participants in the certificate program have the option of applying these graduate credits toward a master's degree offered at the School of Information Studies. All 15 credits completed for the certificate can be included in the 42-credit requirement Master of Science in Information Management or 36-credit Master of Science in Telecommunications Management. Selective credits may be applied to the 36-credit Master of Science in Library and Information Science.

### School Media, CAS

### Contact:

Jill Hurst-Wahl, Program Director, 208 Hinds Hall, (315) 443-1070, [igrad@syr.edu](mailto:igrad@syr.edu)

### Website:

CAS in School Media

### Overview:

Students who already possess a master's degree in library and information science from Syracuse University, or another accredited institution, can be certified as school library media specialists after being accepted into the program and then by completing the following coursework. Students must first undergo a thorough review of their graduate library science degree transcript to determine if the core graduate course requirements and the undergraduate course requirements have been fulfilled. If all requirements have not been met, additional courses will be required.

The program is presented in both campus-based and distance learning course formats.

### Curriculum:

The graduate certificate in school media requires the completion of 21 total credits.

### I. Core Courses (18 credits)

The following required courses provide a foundation in literature, media services instructional design, assessment and evaluation, teaching methods, reading support services, collaboration, information technologies in education, information literacy, and motivation.

- **IST 564 - Library & Information Services to Students with Disabilities 3 credit(s)**
- **IST 611 - Information Technologies in Educational Organizations 3 credit(s)**
- **IST 612 - Youth Services in Libraries and Information Centers 3 credit(s)**
- **IST 661 - Managing a School Library 3 credit(s)**
- **IST 663 - Motivating 21st Century Learning in School Libraries 3 credit(s)**
- **IST 668 - Literacy Through School Libraries 3 credit(s)**

### II. Fieldwork (100 hours, 50 hours on each level)

Fieldwork in both elementary and secondary levels must be completed before the first practicum experience. A minimum of 15 hours must be with students with special needs.

### III. Practicum (3 credits)

Students must complete a 3-credit, on-site, school-based supervised practicum-one at the elementary level and one at the secondary level (120 hours each).

- **IST 972 - School Media Practicum 1-6 credit(s)**

### IV. Additional Requirements

Students must complete the school media program competencies checklist at the beginning of the program and at other designated times during the program. This instrument is used as a means for documenting a student's progress and growth and as a guide for practicum placement.

Near or at the end of their program, school media students are required to complete New York State requirements including the series of New York State workshops on child abuse, substance abuse, and violence prevention and Child Health and Life Safety Prevention (including fire and arson prevention; highway safety and traffic regulations and school safety patrols; child abduction prevention; and prevention of alcohol, tobacco, and drug abuse), fingerprinting, Dignity for All Students (DASA) workshop, and successful completion of the appropriate New York State certification exams. Once all of the requirements have been completed, students will have met all requirements for certification as a school library media specialist at the elementary and secondary levels. Syracuse University's School of Education, with approval from the School of Information Studies, will provide institutional recommendation for a New York State School Media Specialist initial certificate, preK-12, necessary for employment in New York State public schools and accepted for employment by most other states.

### Global Enterprise Technology

#### GET 500 - Selected Topics

##### *School of Information Studies*

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

#### GET 600 - Selected Topics

##### *School of Information Studies*

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

#### GET 602 - Global Financial Systems Architecture

##### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
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.



## GRADUATE COURSE CATALOG

### GET 634 - Effective Communication within a Global Enterprise

#### *School of Information Studies*

1.5 credit(s) Upon sufficient interest  
Principles and practices of presentations in a global enterprise, from formal presentations to conducting meetings. Integrates theoretical foundations and practical guidance with real world experiences in communicating effectively in the workplace.

### GET 646 - Advanced Enterprise Systems Development Lifecycle

#### *School of Information Studies*

1.5 credit(s) Upon sufficient interest  
Challenges of large-scale project management with focus on information systems development. Exploration of issues with the typical systems development life cycle (SDLC) that are most impacted by the complexities of building information systems in, and for, large enterprises.

### GET 662 - Enterprise Systems Strategies and Architectures

#### *School of Information Studies*

1.5 credit(s) Upon sufficient interest  
This course builds the basic understanding of the technical and management architecture that comprise enterprise computing environments. The course focuses on identifying and solving large complex problems by using enterprise computing technologies.

### GET 665 - IT Strategy and Business Value

#### *School of Information Studies*

1.5 credit(s) Upon sufficient interest  
Strategic and financial measures of global IT value including TCO, ROI, and NPV; strategic fit; IT investment risk; IT governance and IT models; measuring IT performance; IT change management.

### GET 675 - Business of IT

#### *School of Information Studies*

1.5 credit(s) Upon sufficient interest  
Global and geographically dispersed budget and control of 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 683 - Systems Modeling and Simulation

#### *School of Information Studies*

3 credit(s) Upon sufficient interest  
To prepare students with fundamental knowledge in simulation and modeling so that they can

communicate with decision and policy makers as well as technical IT professionals in large global organizations, in particular in the information systems department of the organizations.

### GET 684 - Large-scale IT Projects

#### *School of Information Studies*

1.5 credit(s) Upon sufficient interest  
A project-based course that exposes students to the challenges of IT enabled innovation and organizational change in the context of a complex, large-scale enterprise. Capstone course for the CAS in Global Enterprise Technology.

### GET 686 - Independent Technology Education

#### *School of Information Studies*

3 credit(s) Every semester  
Double Numbered with: GET 486  
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 687 - Global Tech

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
Double Numbered with: GET 487  
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.

### Information Technology, Design and Startup

#### IDS 600 - Selected Topics

#### *School of Information Studies*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

#### IDS 690 - Independent Study

#### *School of Information Studies*

1-6 credit(s)  
Repeatable

### Information Studies

#### IST 500 - Selected Topics

#### *School of Information Studies*

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### IST 502 - New Directions in Academic Libraries

#### *School of Information Studies*

1-3 credit(s) Upon sufficient interest  
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

#### *School of Information Studies*

1 credit(s) Upon sufficient interest  
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

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
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

#### *School of Information Studies*

3 credit(s) Upon sufficient interest  
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

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
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

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
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.

## GRADUATE COURSE CATALOG

### IST 556 - Mobile Network Services

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
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

#### *School of Information Studies*

3 credit(s) Upon sufficient interest  
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

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
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

#### *School of Information Studies*

3 credit(s) Upon sufficient interest  
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

#### *School of Information Studies*

3 credit(s) Upon sufficient interest  
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.

### IST 600 - Selected Topics

#### *School of Information Studies*

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### IST 601 - Information and Information Environments

#### *School of Information Studies*

1 credit(s) At least 1x fall or spring  
A broad overview of the field and an orientation to the School of Information Studies. Describes the past, present, and future of information studies.

### IST 602 - Digital Forensics

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
Examination of information technology to establish probative information. Fundamentals of the forensic process, evidence handling and quality assurance as these apply to digital forensics.

### IST 604 - Cataloging of Information Resources

#### *School of Information Studies*

3 credit(s) Upon sufficient interest  
Cataloging rules, standards, and metadata schemes; bibliographic utilities; formats of print and non-print materials; cataloging software; management issues.

### IST 605 - Reference and Information Literacy Services

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
The discovery and use of print and electronic resources and delivery of services in libraries to meet information needs of varied patron communities in a broad range of contexts.

### IST 606 - Legal Information Resources and Services

#### *School of Information Studies*

3 credit(s) Upon sufficient interest  
Legal research methods/materials and management of legal information resources. Includes federal, state, private, and international legal resources.

### IST 609 - Biomedical Information Services and Sources

#### *School of Information Studies*

3 credit(s) Upon sufficient interest  
Development of medical libraries and information services. Bibliography of medicine and the allied health field. Development of computerized databases. Hands-on searching experience.

### IST 611 - Information Technologies in Educational Organizations

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
Information and communications technologies, ethical issues, knowledge management

tools, collaborative learning technologies, education databases, etc. On-site project field work constitutes a major portion of course requirements.

### IST 612 - Youth Services in Libraries and Information Centers

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
Theories, practices, media, literature and emerging trends of youth services from preschool to high school are explored. A broad range of competencies necessary to work with youth in a variety of library settings are presented.

### IST 613 - Library Planning, Marketing, and Assessment

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
User-focused planning, marketing, and assessment of activities that support core functions of libraries, such as collection development, systems, and public services.

### IST 614 - Management Principles for Information Professionals

#### *School of Information Studies*

3 credit(s) Every semester  
Basic ideas, concepts and perspectives of management as they apply to the information professions. Students learn to understand and apply basic principles of organization theory and behavior and managerial techniques needed to improve organizational effectiveness.

### IST 616 - Information Resources: Organization and Access

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
Introduction to theories, tools, and standards for information organization and access, including cataloging rules and formats, content analysis, indexing, classification, and fundamentals of information retrieval systems.

### IST 617 - Motivational Aspects of Information Use

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
Theories of motivation and behavior affecting information use in learning, workplace, and virtual environments. Emphasis on applying motivational theories and models to management practices in information organizations and to the design of information resources and presentations.

### IST 618 - Information Policy

#### *School of Information Studies*

3 credit(s) Every semester

## GRADUATE COURSE CATALOG

Public policy issues that affect the information, library, and telecommunication sectors. These include privacy and security, intellectual property, freedom of expression, communications access, and public sector information. Application of economic, legal, and political science concepts to policy analysis.

### IST 619 - Applied Economics for Information Managers

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

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.  
PREREQ: IST 614

### IST 620 - Advanced Topics in Information Innovation

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Critical and emerging issues in information innovation. The course presents durable concepts of innovation around a specific innovation in the information field. The innovation is used as context for readings and project.

### IST 621 - Introduction to Information Management

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Overview of general management concepts, IM implementation concerns and strategies, information life cycle management, and preparation for an IM career.

### IST 622 - Introduction to Preservation of Cultural Heritage

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Introduction to field of preservation of cultural heritage, including institutions, contexts and methodologies, concepts of place and culture, objects and resources for study; emphasis also on role of digital applications. Requires research project and presentation.

### IST 623 - Introduction to Information Security

#### *School of Information Studies*

3 credit(s) Every semester

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.

### IST 624 - Preservation of Library and Archival Collections

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Introduction to preserving library and archival collections, including paper, audio-visual, and digital objects.

### IST 625 - Enterprise Risk Management

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

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 626 - Business Information Resources and Strategic Intelligence

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Content and structure of bibliographic and other information resources pertaining to business and strategic intelligence activities. Developing search strategies; understanding the information needs and uses of executives and managers working in business strategy and policy.

### IST 627 - What's the Big Idea: Technology Innovation

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Innovation in information technology. Learn how to develop, grow and vet ideas and build teams ready to create a product, serve or business. Additional work required of graduate students.

### IST 628 - Organization/Management of Archival Collections

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Introduction to archival collections including theories and practices associated with archival work, the contexts of archival materials, the digital world, and the archival profession. Requires a collections project.

### IST 629 - Organizational Information Security

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

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.

### IST 631 - Theory of Classification and Subject Representation

#### *School of Information Studies*

3 credit(s) Irregularly

Classification is a fundamental human activity as is forming an abstract representation of verbal information. Theoretical basis of classification and subject representation, attempts to automate these activities.

### IST 632 - Management and Organization of Special Collections

#### *School of Information Studies*

3 credit(s) Irregularly

Principles, methods, and techniques of management, development and organization of special collections such as rare books, archives, or pictorial materials, including issues such as bibliographic services and preservation.

### IST 633 - Enterprise Systems

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Crosslisted with: MFE 633

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 634 - Security in Networked Environments

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Practical and theoretical knowledge of network security. Topics covered include security policies and their place in information technology (IT) and business plans, virtual private networks (VPNs), firewalls, public key infrastructures (PKI), and intrusion detection.

### IST 635 - Collection Development and Access

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Advanced investigation of collection building, acquisition, and maintenance in libraries and information centers; user and collection analysis, collection development policies, digital resource acquisition and licensing, consortium collaboration, and ethical issues.

### IST 637 - Digital Information Retrieval Services

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

## GRADUATE COURSE CATALOG

Overview of multiple types of digital searching tools such as commercial bibliographic databases, web search tools, and specialty search tools. Focus on selection, understanding, and use of search tools, funding, and evaluation of tools and results.

PREREQ: IST 605

### **IST 638 - Indexing and Abstracting Systems and Services**

#### ***School of Information Studies***

3 credit(s) Upon sufficient interest

Skills of abstracting and indexing, with analysis of existing secondary services and varieties of index forms. Both manual and computer-based models.

### **IST 639 - Enterprise Technologies**

#### ***School of Information Studies***

3 credit(s) At least 1x fall or spring

Coverage of management and technical architecture issues that comprise enterprise computing environments. In depth focus on identifying and solving large complex problems and using large computing systems to deploy enterprise scale solutions. Hands-on development on enterprise systems.

### **IST 641 - User-Based Design**

#### ***School of Information Studies***

3 credit(s) At least 1x fall or spring

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 642 - Electronic Commerce**

#### ***School of Information Studies***

3 credit(s) Upon sufficient interest

Current developments in information systems and networks for electronic business transactions. Includes electronic data interchange, secure financial transactions, and evolving marketplace mechanisms. Social impacts and opportunities are discussed.

### **IST 645 - Managing Information Systems Projects**

#### ***School of Information Studies***

3 credit(s) Every semester

Double Numbered with: IST 445

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 646 - Storytelling for Information Professionals**

#### ***School of Information Studies***

3 credit(s) Irregularly

Storytelling from oral tradition to information age. Special application in education, library advocacy, business/enterprise, and community engagement. Experiences in various techniques including use of digital tools for story creation.

### **IST 648 - Enterprise Wireless Network Technologies**

#### ***School of Information Studies***

3 credit(s) At least 1x fall or spring

Double Numbered with: IST 448

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 653

### **IST 649 - Human Interaction with Computers**

#### ***School of Information Studies***

3 credit(s) At least 1x fall or spring

Human performance characteristics, user/system communication design alternatives, user behavior research methods, information system organizational impact.

### **IST 653 - Telecommunications and Enterprise Network Management I**

#### ***School of Information Studies***

3 credit(s) At least 1x fall or spring

A survey of telecommunications and network management issues that focuses on technological foundations, applications, and managerial issues in corporate telecommunications systems and networks.

### **IST 654 - Information Systems Analysis**

#### ***School of Information Studies***

3 credit(s) Every semester

Concepts and methods of systems analysis through decomposition and modeling. Extensive practice with structured methodologies. Systems analysis and project management techniques. Introduction to automated tools and technologies. Group project to apply skills.

### **IST 656 - Telecommunications and Enterprise Network Management II**

#### ***School of Information Studies***

3 credit(s) Every semester

Hardware and software technologies in

telecommunication and information networks. TCP/IP protocols. Design, maintenance and management.

PREREQ: IST 653

### **IST 657 - Basics of Information Retrieval Systems**

#### ***School of Information Studies***

3 credit(s) Upon sufficient interest

Design, development, and evaluation of information retrieval systems/search engines. Theoretical and applied perspectives on representing, storing, and accessing electronic information. Individual and team projects provide hands-on experience.

### **IST 659 - Data Administration Concepts and Database Management**

#### ***School of Information Studies***

3 credit(s) Every semester

Definition, development, and management of databases for information systems. Data analysis techniques, data modeling, and schema design. Query languages and search specifications. Overview of file organization for databases. Data administration concepts and skills. Credit cannot be given for both IST 659 and IST 658.

### **IST 661 - Managing a School Library**

#### ***School of Information Studies***

3 credit(s) At least 1x fall or spring

Management of school library facilities, services, programs, and people including information flow, curriculum analysis, budgeting, collection organization and management, advocacy, professional development, external resources and services, strategic planning, and staffing.

### **IST 662 - Instructional Strategies and Techniques for Information Professionals**

#### ***School of Information Studies***

3 credit(s) Upon sufficient interest

Introduction to information literacy models for application to instruction in information organizations. Focus on strategies and techniques for designing, presenting, and evaluating information technology training and training materials for real clients.

### **IST 663 - Motivating 21st Century Learning in School Libraries**

#### ***School of Information Studies***

3 credit(s) At least 1x fall or spring

Methods for designing, delivering, and evaluating information and digital literacy skills instruction in schools. Exploration of appropriate interventions that support student motivation for learning 21st century skills and ways of fostering librarian-teacher collaboration.

## GRADUATE COURSE CATALOG

### IST 664 - Natural Language Processing

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring  
Crosslisted 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.

### IST 667 - Information Technology for Libraries and Information Centers

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Introduction to computerized technology and its applications in libraries and information centers; management issues of the automation processes; and new directions in the use of technology in information-based settings.

### IST 668 - Literacy Through School Libraries

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Introduction to methods that support and reinforce classroom instruction in developmental reading and language acquisition processes and skills. Development of programs and services that foster self-expression, promote literature appreciation, and encourage information-seeking behaviors.

### IST 673 - Strategic Planning in an Information-Based Organization

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Linking information needs and technology support to organizational goals as a critical skill for professionals. How to develop a strategic planning process for information resources, identify strategic issues, link strategic planning with organizational mandates and mission, write a strategic plan with appropriate performance measures, implement the strategic planning process, and evaluate the planning system and outcomes.

### IST 676 - Foundations of Digital Data

#### *School of Information Studies*

1-3 credit(s) At least 1x fall or spring  
Representation of information in digital libraries; mechanisms for retrieval; digital intermediation; sociopolitical environment for digital libraries.

### IST 677 - Creating, Managing, and Preserving Digital Assets

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Issues and trends in transferring analog and paper-based collections (including manuscripts, photographs, videos, and films) into digital collections.

### IST 678 - Communication for Information Professionals

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Enhances the listening, speaking and writing skills of Information Studies students with low TOEFL or IELTS scores, or through departmental recommendation. Includes information studies specific writing presentations. Cannot be counted towards degree. By permission only.

### IST 679 - Electronic Commerce Technologies

#### *School of Information Studies*

3 credit(s) Every semester

Overview of e-commerce technologies and applications such as EDI, XML, JAVA, middleware, firewalls, encryption, payment systems, database integration, shopping-cart applications, cookies, transaction analysis, and application service providers. Programming experience recommended.

### IST 681 - Metadata

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Introduces metadata modeling, data binding, vocabulary, interoperability, administration, tools, quality control, and evaluation. Examines international metadata standards, activities, and projects through case studies. Students will have hands-on experience with metadata management systems such as D-Space.

PREREQ: IST 616 OR IST 659

### IST 683 - Managing Information Technology-Enabled Change

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Fundamentals of information technology-enabled change management. Comparison with more traditional approaches that facilitate change. Estimating the magnitude of change efforts and identification of key stakeholders. Diagnosis through scoping and process models.

### IST 684 - idea2Startup

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Students establish an actionable plan for the launch of their own business. Focus on establishing a well conceived, achievable and actionable path to market. Additional work required of graduate students.

### IST 685 - Social Networks in Libraries

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Understanding the use of social networking in librarianship including for patron use, marketing, and in the creation of new services to meet community needs.

### IST 686 - Social Media in the Enterprise

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Introduction to the use and management of social media technologies, including strategies for communication, awareness of challenges, and tools and techniques for analysis of social media in contemporary organizations.

### IST 687 - Applied Data Science

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Introduces fundamentals about data and the standards, technologies, and methods for organizing, managing, curating, preserving, and using data. Discusses broader issues relating to data management and use as well as quality control and publication of data.

COREQ: IST 659

### IST 688 - Social Web Technologies

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Double Numbered with: IST 488

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.

### IST 690 - Independent Study

#### *School of Information Studies*

1-6 credit(s) Upon sufficient interest

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. Repeatable

### IST 700 - Selected Topic

#### *School of Information Studies*

0-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

## GRADUATE COURSE CATALOG

### **IST 710 - Advanced Topics in Information Management Approaches and Strategies**

#### **School of Information Studies**

3 credit(s) Irregularly

Critical and emerging issues in the management of information and other information resources. May include specialized information resources management approaches; advanced coverage of planning, budgeting, and procurement; mapping techniques for information services, sources, and systems; professional and ethical development of information resources management.

Repeatable

### **IST 711 - e-Government**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Explores current concepts and practices in Electronic Government at the international, national, state, and local levels. E-Government plays a central role in citizen government interaction, the provision of information and delivery of services.

### **IST 715 - LAMS: Libraries, Archives, Museums**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

A study of libraries, archives, museums, and national parks as cultural institutions; their missions and operating structures; involvement in joint ventures, both physical and electronic; panelists from and site visits to nearby venues.

### **IST 717 - Advanced Library Management**

#### **School of Information Studies**

3 credit(s) Upon sufficient interest

Management of academic, public, and special libraries. Relationship between library and its parent institution; internal organization and operation; library information policies; library financing; legislation affecting libraries.

PREREQ: IST 614

### **IST 718 - Advanced Information Analytics**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

A broad introduction to analytical processing tools and techniques for information professionals. Students will develop a portfolio of resources, demonstrations, recipes, and examples of various analytical techniques.

### **IST 719 - Information Visualization**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

A broad introduction to data visualization for information professionals. Students will develop a portfolio of resources, demonstrations, recipes, and examples of various data visualization techniques.

### **IST 722 - Data Warehouse**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Introduction to concepts of business intelligence (BI) and the practice/techniques in building a BI solution. Focuses are on how to use data warehouses as a BI solution to make better organizational decisions.

PREREQ: IST 659

### **IST 724 - Database Security**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Assessment and analysis of database best practices that include: data security policy, access control, intrusion detection, data obscurity, fraud detection, encryption, virtual private databases and physical security.

PREREQ: IST 659

### **IST 725 - Information Technology Security Architecture**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Introduces concepts and practices, using an organization-wide enterprise architecture as context. The purpose of an IT security architecture is to ensure proper levels of information confidentiality, integrity, and availability are provided for an organization's information and data.

### **IST 726 - Enterprise Architecture: Concepts and Practice**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Documentation and management of information technology resources from a strategy and business driven perspective. Selection and use of frameworks, implementation methodologies, tools, and on-line repositories. Integrated views developed of processes, data, systems, services, and networks.

### **IST 727 - Information Technology Capital Planning**

#### **School of Information Studies**

3 credit(s) Upon sufficient interest

Establishment and management of information technology investment portfolios. Development and evaluation of business cases for potential and existing investments in information technology.

### **IST 728 - Information Security Policy**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Designed for business, law, and technology students interested in information security as it impacts the management and operations of business and government. Information security policy and best business practices.

### **IST 735 - Copyright for Information Professionals**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Geared for library and information professionals, this course provides a firm foundation in the fundamental rules of American copyright law, and equips them with the tools to make informed decisions about copyright issues.

### **IST 736 - Text Mining**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Introduces concepts and methods for knowledge discovery from large amount of text data, and the application of text mining techniques for business intelligence, digital humanities, and social behavior analysis.

### **IST 745 - Project Portfolio and Program Management**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Focus on the knowledge areas of IT project portfolio and program management. Emphasis on skills/techniques required to successfully manage complex, multi-project scenarios, including incremental activities involved in a multi-project IT environment.

PREREQ: IST 645

### **IST 747 - Complex issues in IT Project Management**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Double Numbered with: IST 447

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 OR IST 645

### **IST 753 - Telecommunications and Enterprise Network Management III**

#### **School of Information Studies**

3 credit(s) At least 1x fall or spring

Techniques used to design, manage and secure enterprise telecommunication systems and networks. Topics include convergence, cloud, WAN,

## GRADUATE COURSE CATALOG

broadband, wireless, MPLs, VPN, VoIP, QoS and applications.

PREREQ: IST 653 AND IST 656

### IST 754 - Final Project in Telecommunications Systems

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Capstone and exit requirement for the M.S. in telecommunications and network management. Applies technological and business knowledge to analysis of a specific telecommunication system or networking application. Cost-benefit comparisons of competing technologies or alternative configurations.

PREREQ: IST 601 AND IST 614 AND IST 618 AND IST 653 AND IST 656

### IST 755 - Strategic Management of Information Resources

#### *School of Information Studies*

3 credit(s) Every semester

Seminar. Integration of previous learning on the various components of management, user needs, and technologies. In-depth review and use of case studies on a range of critical information resources management areas.

PREREQ: IST 614

### IST 759 - Planning and Designing Digital Library Services

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Hands-on clinical experience planning and designing digital library services.

PREREQ: IST 676 AND IST 677

### IST 769 - Advanced Database Administration Concepts and Database Management

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

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 659

### IST 770 - Advanced Topics in Research Methods

#### *School of Information Studies*

1-3 credit(s) Irregularly

Research methods used in information studies. May include designs for survey, experimental or historical research; data collection. Statistical methods, content analysis, computer simulation, model simulation, and model building.

Repeatable

### IST 775 - Information Industry Strategies

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Issues in converging information industry sectors such as hardware, software, telecommunications, information services, and content.

### IST 776 - Research Methods in Information Science and Technology

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Philosophies, approaches, and practices of research in information transfer. Statistics as a tool and as a framework for understanding the research process.

### IST 777 - Statistical Methods in Information Science and Technology

#### *School of Information Studies*

3 credit(s) At least 1x fall or spring

Classical statistical procedures used in information transfer research. Emphasis on underlying rationale for each procedure and on criteria for selecting procedures in a given research situation.

PREREQ: IST 776

### IST 778 - Elicitation and Analytical Techniques for Information Science

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Techniques for data elicitation and analysis for research in information science and technology. Includes intellectual history, assumptions, procedures, and practical experience with a range of techniques, including both qualitative and quantitative approaches.

### IST 790 - Advanced Topics in Information Organization

#### *School of Information Studies*

1-3 credit(s) Upon sufficient interest

May include the organization of bibliographic information in libraries, information centers, and retrieval systems; vocabulary control in information retrieval systems, classification theory; problems in the organization of media.

### IST 800 - Information Studies Seminar

#### *School of Information Studies*

1-3 credit(s) Upon sufficient interest

Selected areas within the information field, emphasizing related disciplines and their relationships to the diagnosis of information needs and the collection, storage, management, regulation and dissemination of information.

Repeatable

### IST 810 - Practicum in Research

#### *School of Information Studies*

2 credit(s) Every semester

Practical experience in the research process.

Students write proposals, discuss ongoing research, prepare critiques of research designs, and engage in all aspects of the research process. Repeatable

### IST 820 - Seminar in Research Methods

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Principles and applications of appropriate research techniques, including probability and statistics, sampling theory, operations research models, survey techniques, interviewing, observation, and experimental design. Problem formulation, proposal writing, preparation and presentation of final report.

### IST 830 - Seminar in Information Systems

#### *School of Information Studies*

3 credit(s) Upon sufficient interest

Theory and practice in the analysis, design, management, and evaluation of existing and hypothetical information systems, including computerized storage and retrieval systems, libraries, management systems, and networks.

### IST 840 - Practicum in Teaching

#### *School of Information Studies*

1-2 credit(s)

Practical experience in the teaching process.

Students write syllabi, classroom assignments, or presentations; discuss ongoing teaching assignments; prepare critiques of classes; and engage in all aspects of the teaching process.

Repeatable 7 time(s), 8 credits maximum

### IST 880 - Intensive Seminar

#### *School of Information Studies*

1 credit(s) Upon sufficient interest

Residential seminar for Doctorate of Professional Studies distance students. Skill building and mentoring for doctoral coursework and dissertation preparation. Portfolio evaluation of work accumulated during the semester.

Repeatable 5 time(s), 6 credits maximum

### IST 971 - Internship in Information Studies

#### *School of Information Studies*

1-6 credit(s) Every semester

Fully supervised internship experience. Prereq: IST master's students only. Must meet GPA requirements and complete a learning agreement with site supervisor.

Repeatable 1 time(s), 6 credits maximum

# GRADUATE COURSE CATALOG

## IST 972 - School Media Practicum

### School of Information Studies

1-6 credit(s) Every semester  
Fully supervised and evaluated school-based library experience at the elementary and secondary levels. Includes online seminar. Must meet GPA/program requirements and complete a learning agreement with site supervisor. Repeatable

## IST 997 - Thesis

### School of Information Studies

1-6 credit(s) Upon sufficient interest

## IST 999 - Dissertation

### School of Information Studies

1-15 credit(s) Upon sufficient interest  
Repeatable

## School of Information Studies Faculty

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, nomadcity, 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 audiovisual services, telephone numbering resources, international institutions governing communication and information



## GRADUATE COURSE CATALOG

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, Ph.D. 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

## About the College of Law

William C. Banks, Interim Dean  
College of Law  
Malfitano Dean's Suite, 408 Dineen Hall  
<http://law.syr.edu>

### Message from Interim Dean Banks

Studying law is an amazing intellectually stimulating yet profoundly rewarding experience. At Syracuse University College of Law, the faculty are dedicated to ensuring each student is challenged academically in the classroom and introduced to numerous experiences out of the classroom that, when combined, best prepare the graduate to be a contemporary legal professional.

A strong legal education begins with a solid foundation in the fundamentals that every legal professional needs. Our outstanding faculty have created a curriculum that delivers these critical skills such as legal writing and research, client advising, and critical analysis. On top of that, the College of Law offers a number of courses from noted experts in the field that focus on specific areas of the law, ranging from elder law to national security law, to satisfy their interests and career goals.

Beyond the classroom, the College of Law offers experiential education opportunities that are designed to provide students with the real-world perspective and experience they will need upon graduation. This includes nine legal clinics where students work with actual clients, several academic journals headed by student editors and writers, and externship programs in New York State, Washington, DC and London.

The College also hosts or participates in six interdisciplinary Centers in conjunction with Syracuse University's noted schools and colleges that expand the student to academics and skills that intersect with aspects of the law. Students also have 11 joint degree programs in cooperation with the University's graduate schools and colleges where they can earn a Master's degree along with their J.D.

The College of Law's new home, Dineen Hall, opened in the fall of 2014, providing our students and faculty with a modern, purpose-built facility for students and faculty to immerse themselves in the teaching and learning of the law. The spacious building houses all classrooms, offices and amenities with an eye toward collaboration.

This is an important time to be a law student. The challenges we face as part of a global community are especially daunting and we will rely heavily on the skills and creative energy of the next generation of law graduates to ensure that our communities prosper and thrive. The College of Law faculty and staff is committed to ensure our students are ready for the challenges that they will face.

William C. Banks  
Interim Dean  
Syracuse University College of Law

## Admission

Applicants to the College of Law are not required to present college credit in specialized subjects. A broad general education is better preparation for law study than specialized study in related subjects. Above all, prospective law students should be able to use language effectively; that is, they should have the ability to communicate ideas orally and in writing with precision, clarity, and style. Thus, any undergraduate or graduate program that enhances this ability should be actively pursued.

In reviewing applications, the Admissions Committee considers Law School Admission Test (LSAT) scores and writing samples, records of prior academic performance, academic letters of recommendation, and any other documentation submitted by applicants indicating likely success in the demanding law school curriculum and legal profession.

The College of Law recognizes the racial and gender imbalance existing in the legal profession and the public interest in augmenting the number of lawyers from groups that have been traditionally underrepresented in the profession. Therefore, the College of Law encourages qualified members of these groups to apply for admission.

For further information, contact: Syracuse University College of Law, Office of Admissions, Suite 100, Syracuse, NY 13244-1030; 315-443-1962. The College of Law's web site is <http://law.syr.edu/>.

## Academic Rules & Regulations

Academic Rules and Regulations may be found by clicking on the link below:  
[http://law.syr.edu/uploads/docs/2014-2015\\_Academic\\_Handbook.pdf](http://law.syr.edu/uploads/docs/2014-2015_Academic_Handbook.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 220, 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 for processing.

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

## GRADUATE COURSE CATALOG

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/>

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/financial-aid/>

### 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@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 (ECS). 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. 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@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

## GRADUATE COURSE CATALOG

awarded either degree until the requirements for both degrees are completed.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@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](mailto:pcgrad@syr.edu)) or visit [newhousemasters.syr.edu](http://newhousemasters.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@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](mailto:branson@syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of LAW, (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@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 414 Dineen 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@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 Renfro, 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 Courtney Abbott Hill, Associate Director for Student Life, College of Law, Suite 220 (443-1146; cabbotth@law.syr.edu).

## **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 Law program designed to offer students with a foreign 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 American Law. 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.

Students will enroll in three foundational courses designed specifically for the LL.M. program; one to introduce the students to the basics of the American legal system, a second in Legal Writing, and a third course devoted to skills-based strategies for success in the program. The remainder of the program allows the student to take classes alongside our J.D. student population and to tailor their

## GRADUATE COURSE CATALOG

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.

More information regarding the Law in

London program may be found at:

<http://law.syr.edu/uploads/docs/law-in-london.pdf>

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).

### Master's

#### Law, LL.M.

##### Program Requirements

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.

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.

#### Public Health, MPH

Michael Wasylenko, Ph.D., Senior Associate Dean, Maxwell School

200 Eggers Hall; 315-443-2253; [mjwasyle@maxwell.syr.edu](mailto:mjwasyle@maxwell.syr.edu)

[www.upstate.edu/cnymph](http://www.upstate.edu/cnymph)

##### Program Requirements

The Master of Public Health (M.P.H.) degree is a collaborative program, sponsored jointly

## GRADUATE COURSE CATALOG

by SUNY Upstate Medical University (UMU) and Syracuse University (SU). Participating colleges at Syracuse University include the Maxwell School of Citizenship and Public Affairs, College of Engineering and Computer Science, the College of Law and the David B. Falk College of Sport and Human Dynamics.

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/mp\\_h\\_degree/how\\_to\\_apply.php](http://www.upstate.edu/cnymph/academic/mp_h_degree/how_to_apply.php)

### Doctorate

### Law, JD

### Degree Requirements

Syracuse University College of Law awards the Juris Doctor degree to students who successfully complete a minimum of 87 credits. Each student must earn a cumulative

grade point average and a final-year grade point average of 2.2 on a 4.0 scale to satisfactorily complete the course of study.

For further information regarding admissions, please contact the College of Law Admissions Office, 315-443-1962, [admissions@law.syr.edu](mailto:admissions@law.syr.edu)

For further information regarding Scholarships and Financial Aid, please contact the College of Law Financial Aid Office, 315-443-1962, [financialaid@law.syr.edu](mailto:financialaid@law.syr.edu)

For further information regarding academic programs, and policies, please contact the College of Law Office of Student Life, 315-443-1146, [studentlife@law.syr.edu](mailto:studentlife@law.syr.edu)

### Combined Degree

### Accounting, JD/MBA

### Degree Requirements

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. 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbott@law.syr.edu](mailto:cabbott@law.syr.edu)).

### Cultural Foundations of Education, JD/MS

### Program Requirements

The College of Law's 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 also may earn a certificate of advanced study (C.A.S.) 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbott@law.syr.edu](mailto:cabbott@law.syr.edu)).

### Finance, JD/MBA

### Degree Requirements

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. 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

## GRADUATE COURSE CATALOG

awarded either degree until the requirements for both degrees are completed.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Law and Arts Journalism, JD/MA**

#### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should be directed to the Graduate Records Office, S.I. Newhouse School of Public Communications, 330 Newhouse 2 (315-443- 4039; [pcgrad@syr.edu](mailto:pcgrad@syr.edu)) or visit [newhousemasters.syr.edu](http://newhousemasters.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Law/Advertising, JD/MA**

#### **Degree Requirements:**

The Juris Doctor/Master of Science or Master

of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should be directed to the Graduate Records Office, S.I. Newhouse School of Public Communications, 330 Newhouse 2 (315-443- 4039; [pcgrad@syr.edu](mailto:pcgrad@syr.edu)) or visit [newhousemasters.syr.edu](http://newhousemasters.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Law/Computer Science, JD/MS**

#### **Law/Computer Science**

The Juris Doctor and Master of Science are combined degrees which may be conferred by the College of Law and Syracuse University's L.C. Smith 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Law/Documentary Film & History, JD/MA**

#### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should be directed to the Graduate Records Office, S.I. Newhouse School of Public Communications, 330 Newhouse 2 (315-443- 4039; [pcgrad@syr.edu](mailto:pcgrad@syr.edu)) or visit [newhousemasters.syr.edu](http://newhousemasters.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Law/Forensic Science, JD/MA**

#### **Law/Forensic Science**

For those entering the legal profession, an understanding of the scientific analysis of evidence can greatly contribute to their



## GRADUATE COURSE CATALOG

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 Arts and Sciences and the College of Law. A student who is admitted to one of these programs 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

### Law/History, JD/MA

#### Degree Requirements

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. The 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 444 College of Law, 443-1146, cabbotth@law.syr.edu

### Law/International Relations, JD/MA

#### Degree Requirements

The Juris Doctor/Master of Arts in International Relations is a combined degree which is conferred by the International Relations program of the Maxwell School of Citizenship and Public Affairs and the College of Law. This joint degree program offers students a unique opportunity in developing 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 Global Markets, Negotiation and Conflict Resolution, Global Development Policy, Global Security, Transnational Organizations and Leadership, and Foreign Policy.

Questions and inquiries may be addressed to Joshua Kennedy, Associate Director of Graduate Studies, International Relations, 215 Eggers Hall, Maxwell School of Citizenship and Public Affairs (443-5339; jkenn01@syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

### Law/Magazine, Newspaper & Online Journalism, JD/MA

#### Degree Requirements:

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A, as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

### Law/Media Management, JD/MS

#### Degree Requirements:

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A, as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite

## GRADUATE COURSE CATALOG

220 College of Law (443-1146, cabbotth@law.syr.edu).

### **Law/Media Studies, JD/MA**

#### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

### **Law/Philosophy, JD/PhD**

#### **Law/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 should be directed to Professor Thomas McKay, Philosophy Department, 541 Hall of Languages (443-2536; tjmckay@syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

### **Law/Photography, JD/MS**

#### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

### **Law/Political Science, JD/MA**

### **Degree Requirements**

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 should be directed to Professor Glyn Morgan, Director of Graduate Studies, (dgmorgan@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

### **Law/Political Science, JD/PhD**

#### **Degree Requirements**

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 should be directed to Professor Glyn Morgan, Director of Graduate Studies, (dgmorgan@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

### **Law/Public Administration, JD/MPA**

#### **Degree Requirements:**

A longstanding and popular joint degree exists between the Department of Public Administration of the Maxwell School for Citizenship and Public Affairs and Syracuse

## GRADUATE COURSE CATALOG

University's College of Law. Students can prepare for a career that rests on the nexus of law and public administration with the JD/MPA degree. Students must apply and be admitted to both programs separately and will complete the entire first year in the College of Law prior to matriculation into the MPA degree. Due to the calendar nature of the MPA program, this challenging joint degree, one of the oldest of its kind anywhere, can be completed in three years (the same time needed for a JD alone).

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Law/Public Relations, JD/MS**

#### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should be directed to the Graduate Records Office, S.I. Newhouse School of Public Communications, 330 Newhouse 2 (315-443- 4039; [pcgrad@syr.edu](mailto:pcgrad@syr.edu)) or visit [newhousemasters.syr.edu](http://newhousemasters.syr.edu). Students with general questions and inquiries concerning procedures regarding

joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Law/Social Work (Licensed Clinical), JD/MSW**

#### **Degree Requirements**

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 should be directed to Adrienne Renfro, LMSW, Coordinator of Graduate Admissions, 268 White Hall (443-1443; [alrenfro@syr.edu](mailto:alrenfro@syr.edu)). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Law/Television, Radio & Film, JD/MA**

#### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should be directed to the Graduate Records Office, S.I. Newhouse School of Public Communications, 330 Newhouse 2 (315-443- 4039; [pcgrad@syr.edu](mailto:pcgrad@syr.edu)) or visit [newhousemasters.syr.edu](http://newhousemasters.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Library and Information Science, JD/MS**

#### **Degree Requirements**

The Juris Doctor/Master of Science in Library and Information Science is a combined degree which may be conferred by the School of Information Studies and the College of Law. 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### **Certificate of Advanced Study**

### **National Security and Counterterrorism Law, CAS**

#### **Contact:**

Keli Perrin  
Assistant Director, Institute for National Security and Counterterrorism  
300 Dineen Hall  
315-443-2284  
[kaperrin@law.syr.edu](mailto:kaperrin@law.syr.edu)

## GRADUATE COURSE CATALOG

### Faculty:

William C. Banks, Director, INSCT and Board of Advisors Distinguished Professor; David M. Crane, Professor of Practice; James Steinberg, Dean, Maxwell School University Professor of Social Science, International Affairs and Law; Robert B. Murrett, Deputy Director, INSCT and Professor; Nathan Sales, Associate Professor of Law; William C. Snyder, Visiting Professor of Law; Tara Helfman, Associate Professor of Law; Keli A. Perrin, Assistant Director, INSCT and Adjunct Professor; Renee de Nevers, Associate Professor; Corri Zoli, INSCT Director of Research and Research Assistant Professor; Isaac Kfir, Visiting Assistant Professor.

### Description:

The CAS in National Security and Counterterrorism Law will be an interdisciplinary, 15-credit program of study for law and graduate students specializing in national security, homeland security, counterterrorism, cybersecurity, and related fields. The interdisciplinary nature of the CAS will enrich the students' legal understanding as program recipients collaborate with students and faculty from a range of disciplines, including public administration, international relations, political science, communications, and history. Students benefit from the expertise of faculty in military planning and operations, global counterterrorism and arms control policy, counter-proliferation policy, diplomacy and international relations, mass communication, terrorist methods and psychology, history, and economics.

15 credits in security-related coursework give students a solid understanding of:

- The legal framework for national security decision-making, including the respective powers of the President, Congress, and the Judiciary.
- The legal authorities governing the use of military force, intelligence operations, and public access to national security information.
- US and international responses to terrorism, including law enforcement, intelligence, military, and diplomatic approaches to counterterrorism.
- The challenges of homeland security preparedness and response.

### Admission:

The program is open to students matriculated into law and graduate programs at Syracuse University. Students must meet the requirements of their respective colleges.

### Satisfactory Progress:

Maintain a 3.0 GPA average in all courses. No courses may be taken pass/fail.

### Required Courses: Must take TWO courses (6 Credits)

- LAW 700 - National Security Law 3 credit(s)
- LAW 790 - Counterterrorism and the Law 3 credit(s)
- PAI 730 - Problems in Public Administration 1-3 credit(s)
- LAW 871 - Foreign Relations 3 credit(s)
- LAW 832 - Cyber Security Law and Policy 3 credit(s)
- LAW 822 - National Security & Counter Terrorism Research Center 3 credit(s)

### Electives: Must take THREE courses (9 Credits)

Each semester INSCT reviews the course offerings in the law school and the graduate schools to identify courses that count as electives. INSCT also evaluates any new course offerings for inclusion in the program at that time.

### All Students Must Complete the Writing Requirement:

- An academic paper on a security topic that satisfies the upper class writing requirement for Syracuse Law; OR
- Students may take at least one course that requires a significant written product on a security topic: LAW 883 or LAW 822
- Complete the Capstone Project:
- Examples of a Capstone Project include, but are not limited to, a research paper, clinical work, an externship, or a substantial collaborative project. The project

must be approved by the Program Director; OR

- Students may take one or both of two classes whose cumulative work constitutes a Capstone Project: LAW 883 or LAW 822

### Postconflict Reconstruction, CAS

Director, William C. Banks  
300 Dineen Hall  
315-443-2284

The Certificate of Advanced Study in Postconflict Reconstruction (PCR) provides students a documented concentration and familiarization with the major aspects of PCR, the various dimensions and goals of postconflict work, the types of actors that conduct it, the trade-offs and dilemmas they face, and the lessons learned from its application across various settings. This CAS offers the analytical tools to help students be successful in public service careers in the fields of PCR and international development.

12 credits of PCR-related coursework give students provide:

- Analytical techniques that are tailored for work in international development communities.
- A better understanding of how the US and the international community can effectively participate in rebuilding shattered societies.
- New ways of thinking about the nature of conflict, cooperation, and national security.

Graduate and law CAS candidates complete 12 credits (three courses and one capstone project or internship) through a sequence of specialized, interdisciplinary coursework and coordinated professional development experiences at SU's Maxwell School, College of Law, Whitman School, and Newhouse School.

Areas of Specialization:

- Building Institutional Capacity
- Building the Rule of Law
- Providing Humanitarian Relief
- Assuring Security and Demilitarizing Politics

## GRADUATE COURSE CATALOG

- Promoting Reconciliation and Peacebuilding
- Building Civil Society
- Revitalizing Postconflict Economies

Questions about the Program can be directed to Keli Perrin (kaperrin@law.syr.edu) or by calling INSCT at 315.443.2284.

### Certificate Requirements

#### 1) Base Course (Mandatory/3 credits):

- PAI 719 - Fundamentals of Post-Conflict Reconstruction 3 credit(s)

#### 2) Secondary Core Course (Choose one/3 credits):

- ECN 661 - Economics of Development 3 credit(s)
- LAW 871 - Foreign Relations Law
- PAI 601 - Fundamentals of Conflict Studies 3 credit(s)
- PAI 765 - Humanitarian Action: Challenges, Responses, Results 3 credit(s)
- ANT 701 - Seminar on Multilateral Peacekeeping 3 credit(s)

#### 3) PCR Capstone Project/ Internship:

- PAI 996 - Master's Project Paper 3 credit(s) EMPA/EMIR Masters Project
- PAI 670 - Experience Credit 1-6 credit(s) or
- PAI 690 - Experience Credit
- LAW 991 - Experience Credit or
- LAW 997 - Experience Credit
- PAI 670 - Experience Credit 1-6 credit(s) Global Internship IR Students or
- PAI 711 - Practicum in International Organizations 6 credit(s) Global Internship IR Students or
- PAI 715 - Topics in Global Development 3 credit(s) Global Internship IR Students
- PAI 752 - MPA Workshop 3 credit(s)
- PAI 700 - Selected Topics 1-6 credit(s) Washington Practicum

### Law

#### LAW 530 - Negotiation

*College of Law*

1 credit(s) Irregularly

The course will emphasize learning the skills of negotiation by simulations in which students will negotiate and watch their classmates negotiate. Class members will conduct three negotiations, a simple sales contract, a retainer agreement between an attorney and a client, and a complex multi-party dispute.

#### LAW 601 - Civil Procedure

*College of Law*

4 credit(s) At least 1x fall or spring Procedural processes that guide the adjudication of civil actions in American courts. Allocation of judicial power between federal and state courts, focusing on the Federal Rules of Civil Procedure. Fundamental policies underlying particular procedural rules.

#### LAW 602 - Constitutional Law

*College of Law*

3 credit(s) At least 1x fall or spring This course covers (1) Judicial Review in all its aspects, including the Case and Controversy Doctrine, and (2) Structure, that is, Federalism (Federal and State regulatory and taxing powers) and Separation of Powers/Checks and Balances among the branches of the federal government.

#### LAW 603 - Contracts

*College of Law*

5 credit(s) At least 1x fall or spring Legal protection afforded promissory agreements. Contract interpretation; contract formation, including offer and acceptance, mutual assent, and consideration. Parties affected by contracts and remedies for breach of contract.

#### LAW 604 - Criminal Law

*College of Law*

3 credit(s) At least 1x fall or spring Elements of various crimes and problems of statutory construction and interpretation. Substantive defenses, emphasizing the defense of insanity, as well as attempts and the specific crimes of conspiracy, theft, and homicide.

#### LAW 607 - Property

*College of Law*

5 credit(s) At least 1x fall or spring Problems concerning the possession of land and chattels. Methods of acquiring title to personal property, possessory and concurrent estates, and landlord and tenant problems. Historical introduction to real estate, including future interest, real covenants, and easements.

#### LAW 608 - Torts

*College of Law*

5 credit(s) At least 1x fall or spring Imposition of liability for personal wrongs as viewed by traditional tort law and current alternatives. Historical development and policy basis of liability for various types of injury-producing conduct, including intentional torts, negligence, and strict liability.

#### LAW 609 - Legal Communications and Research I & II

*College of Law*

2 credit(s) Every semester Fall Semester: Introduction to basic lawyering skills, including legal analysis, citation, and court hierarchy and application of these skills to complex factual situations in a mock law firm setting. Spring Semester: Continuation of Legal Communications and Research. Skills introduced this semester include legal research, oral argument, and the written presentation of legal arguments in persuasive form. Repeatable

#### LAW 610 - Legislation & Policy

*College of Law*

3 credit(s) At least 1x fall or spring Students will be able to choose from among several specialized first-year elective courses including health law, Indian law, land use planning and zoning law, sentencing law, special education law, and violence against women. In each of these courses, students will explore the institutions and processes of public law making, including an examination of statutory interpretation and legislative and administrative process, as applied to the particular substantive area of law. Repeatable 1 time(s), 3 credits maximum

## GRADUATE COURSE CATALOG

### **LAW 630 - Negotiation**

*College of Law*

1 credit(s) Irregularly

The course will emphasize learning the skills of negotiation by simulations in which students will negotiate and watch their classmates negotiate. Class members will conduct three negotiations, a simple sales contract, a retainer agreement between an attorney and a client, and a complex multi-party dispute.

### **LAW 641 - Fact Investigation and Analysis**

*College of Law*

3 credit(s) At least 1x fall or spring

An introduction to the world of fact investigation and analysis, this course will provide an overview of how to develop and scrutinize facts. The course will cover five major topics: 1) How lawyers gather facts; 2) How lawyers evaluate evidence/facts; 3) How to organize evidence into a comprehensive narrative; 4) How human memory, biases, and perception affect fact gathering; and 5) The ethical issues surrounding fact investigations. The course will involve a significant interactive skill development component including mock interviews, drafting exercises, guest speakers, and hands-on investigation exercises.

### **LAW 642 - Introduction to Legal Practice: Applying Contracts, Torts, and Civil Procedure**

*College of Law*

3 credit(s) At least 1x fall or spring

This course translates theory into practice through a semester-long simulation of legal work. Building upon students' mastery of Torts, Contracts, and Civil Procedure, this course introduces students to essential lawyering skills including client relations, negotiations, interviewing, drafting, motion practice, and discovery. The course will also focus on professional identity issues as they arise in the context of the applied learning of the practice of law.

### **LAW 643 - Land Use Planning and Zoning Law: An Applied Property Course**

*College of Law*

3 credit(s) At least 1x fall or spring

The course will provide an applied property experience focused on learning strategic lawyering and practice oriented skills while developing knowledge about land use law

and the administrative regulatory process. The course will be structured around three important elements: 1) Learning by observing and interacting with local zoning board officials; 2) Translating knowledge into strategic action by focusing on how to use the law to advance your client's interest; and 3) Solving real world and practice-based problems developed from actual zoning application files.

### **LAW 644 - National Security Lawyering**

*College of Law*

3 credit(s) At least 1x fall or spring

The central goal of this course is to equip students with skills required to practice law in a political and bureaucratic context. It will teach students about the organizational structure of the national security infrastructure; how key figures make, implement, and oversee policy and operational decisions; and the unusually diverse array of legal materials that regulate national security players and thus constitute the "law" of national security law.

### **LAW 645 - Negotiation for Lawyers**

*College of Law*

3 credit(s) At least 1x fall or spring

This course will introduce students to the theory and practice of negotiation. Students will learn basic negotiation skills and will be introduced to a variety of other skills including: valuation of a client's position; interviewing; business communications; and basic drafting.

### **LAW 646 - Problem Solving and Intelligent Lawyering**

*College of Law*

3 credit(s) At least 1x fall or spring

This course focuses on the lawyer's role as a problem-solver. A series of problems challenge students to determine client interests and consider different courses of action for effective representation. The problems span more than one area of law and become more complicated as the semester progresses. To develop skills of perception and judgment, the course also incorporates the study of mindfulness and emotional intelligence.

### **LAW 647 - Professional Responsibility: Becoming a Lawyer**

*College of Law*

3 credit(s) At least 1x fall or spring

This course will cover the essential components of professional responsibility and will focus on professional identity formation. Utilizing a problem approach that lends itself to simulations and skills development, students will learn how to analyze ethical issues; develop basic interviewing, counseling, and informal advocacy skills; practice collaboration; and reflect on the role of the lawyer and their own professional development. This course meets the Professional Responsibility requirement.

### **LAW 648 - Public Interest Lawyering**

*College of Law*

3 credit(s) At least 1x fall or spring

This course will explore major lawyering themes and skills used by public interest lawyers, cutting across diverse practice areas and settings. The course is designed to integrate academic theory with experiential learning (through role plays, simulations, and individual and group exercises) related to current issues affecting public interest law advocacy today.

### **LAW 690 - Legal Communications & Research III**

*College of Law*

2 credit(s) Every semester

A variety of courses that build on the skills learned in the first two semesters of the Legal Communication and Research Program. The courses focus more specifically on practice areas (such as civil litigation, criminal litigation, and transactional drafting) as well as courses that focus on legal writing (such as theories and strategies in persuasive writing and revising and editing legal prose).

PREREQ: LAW 609

### **LAW 699 - Constitutional Law II**

*College of Law*

3 credit(s) At least 1x fall or spring

A continuation of Constitutional Law I (LAW 602) for second-year law students. Must be taken during the second year. This course covers Individual Rights, that is, Due Process, Equal Protection and the First Amendment, including freedom of speech, the press and religion.

## GRADUATE COURSE CATALOG

PREREQ: LAW 602

### **LAW 700 - National Security Law**

*College of Law*

3 credit(s) At least 1x fall or spring  
Obtaining information about the government; restraints on publication; government surveillance; travel restrictions; war and emergency powers; nuclear weapons issues; civil disobedience and draft issues.

### **LAW 701 - Accounting for Lawyers**

*College of Law*

2 credit(s) Irregularly  
Principles of financial accounting applied to business entities: proprietorships, partnerships, and corporations; accounting for and tax implications of business organizations; and problems with estates and trusts. Not open to students who have more than one year of accounting.

### **LAW 702 - Administrative Law**

*College of Law*

3 credit(s) At least 1x fall or spring  
Nature and function of the administrative process. Procedural constraints on administrative investigation, adjudication, and rule making; judicial review of agency action.

### **LAW 703 - Pension and Employee Benefit Law**

*College of Law*

2 credit(s) Irregularly  
Tax and other consequences of various plans of deferred compensation for executives and other employees.

### **LAW 704 - Commercial Transactions**

*College of Law*

4 credit(s) At least 1x fall or spring  
Commercial practices under the Uniform Commercial Code, particularly sales, commercial paper and bank collections, letters of credit, bulk transfers, and secured transactions; business background, planning, and counseling.

### **LAW 705 - Comparative Law**

*College of Law*

3 credit(s) Irregularly  
This course will provide a comprehensive introduction to the legal systems of the civil law, with a focus on continental Europe. Many characteristic features of the Civil Law

-- the absence of a jury, the relative lack of reliance on judicial precedents, the emphasis on codification -- have their origin in ancient and medieval times. Our course will therefore trace a historical review of European legal history and the civil law, beginning with Roman law, proceeding through medieval times and the early modern era of the 18th and 19th centuries, to the modern period of international law. We will focus on the emergence of the three most influential modern systems, those of France, Germany, and Italy. We will examine the civil codes, the nature of continental adjudication, the inquisitorial approach to criminal justice, and comparative constitutional law. We will conclude the course by addressing the rise of the European Union and its legal institutions.

### **LAW 706 - Conflict of Laws**

*College of Law*

3 credit(s) Irregularly  
Legal rules applicable to disputes with contacts to more than one state or country; the historical development of such rules; and their application in contract, tort, property, and other cases.

### **LAW 708 - Constitutional Criminal Procedure - Investigative**

*College of Law*

3 credit(s) At least 1x fall or spring  
Constitutional and statutory requirement for investigative procedures in criminal cases. Topics include searches, seizures, lineups, confessions, and electronic surveillances.

### **LAW 710 - Sexual Orientation & the Law**

*College of Law*

3 credit(s) Irregularly  
Legal issues as they affect the lives of lesbians, gays, and bisexuals in the United States. Constitutional law, employment law, family law, property law, criminal law, and estate planning will be the areas of primary focus.

### **LAW 711 - Land Use and Zoning Law**

*College of Law*

3 credit(s) Irregularly  
This course will involve an examination of basic land use and zoning laws. Attention is paid to a variety of zoning and regulatory tools as well as to local laws addressing environmental concerns. This includes basic zoning, density controls, variances,

exceptions, special uses, exactions, inclusionary and exclusionary zoning, and the takings issue. The focus of the course will be on the importance of private property rights and the protection of those rights in the context of public controls and regulations. The course will examine the way in which public and private claims to land are resolved through a mix of market and non-market mechanisms.

### **LAW 712 - Business Associations**

*College of Law*

4 credit(s) At least 1x fall or spring  
This is a business organizations course covering both unincorporated businesses and corporations. The first half of the course pertains to small business forms: partnerships; LLCs and close corporations. The balance covers public corporations, including regulation under securities laws.

### **LAW 715 - Wills and Trusts**

*College of Law*

3 credit(s) At least 1x fall or spring  
Law governing interstate succession; execution, and revocation of wills; inter vivos will substitutes; the creation, nature, and revocation of trusts.

### **LAW 716 - Environmental Law**

*College of Law*

3 credit(s) Irregularly  
Pollution control and toxic substance regulation; the ends and means of environmental protection; the institutional responsibilities of legislatures, agencies, and courts.

### **LAW 717 - Estate & Gift Taxation**

*College of Law*

3-4 credit(s) At least 1x fall or spring  
Taxation of transfers during life and at death. Planning and alternative modes of disposition.

### **LAW 718 - Evidence**

*College of Law*

4 credit(s) At least 1x fall or spring  
Procedural and substantive rules of evidence. Judicial notice, presumptions and burdens of proof, rules governing the receipt of oral and documentary evidence, impeachment, direct and cross-examination, competency, hearsay, privileges, and the best evidence rules.

## GRADUATE COURSE CATALOG

### **LAW 719 - Law and Psychology**

*College of Law*

3 credit(s) Irregularly

An important goal of the legal system is to guide, constrain, and react to human behavior. In doing so, the law makes numerous assumptions about people's thoughts, beliefs, attitudes, and conduct—assumptions that may or may not be true. Psychology, as the empirical study of human thoughts, beliefs, attitudes and conduct, is in an important position to evaluate such assumptions. Over the past several decades, increasing numbers of social scientists have devoted substantial attention to the systematic study of law and legal institutions. At the same time, social scientists are testifying as experts in increasing numbers, and encouraging courts and policy-makers to use research evidence in adjudicating court cases and in setting public policy. This course will provide a survey of research in psychology as it relates to the legal and political process; in-class activities and demonstrations will form a significant part of the class. Among the topics covered may be jury decision-making, the insanity defense, paternalism, media violence, negotiation, race, trial consulting, obscenity and pornography, and capital punishment. Each topic will be considered from both a theoretical and an applied perspective.

### **LAW 720 - Family Law**

*College of Law*

3 credit(s) At least 1x fall or spring

State regulation of family relations. Family autonomy, marital and non-marital contracts, adoption. Issues in divorce: separation agreements, spousal and child support, property division, and child custody.

### **LAW 721 - Federal Courts**

*College of Law*

3 credit(s) At least 1x fall or spring

Essential functions of federal courts. Relationships between federal courts and the other branches of the federal government, the states, and the individual.

### **LAW 722 - Federal Income Tax I: Individual Tax**

*College of Law*

3-4 credit(s) At least 1x fall or spring

Law and policy regarding the taxation of income of the individual taxpayer, including

characteristics of income, personal and business deductions, principles of income splitting and tax accounting, dispositions of property, capital gains.

### **LAW 723 - Federal Income Tax II: Taxation of Business Transactions**

*College of Law*

3 credit(s) Irregularly

Income tax problems of the corporation and its shareholders, emphasizing corporate organization, distributions, redemptions, liquidations, reorganizations, collapsible corporations, and S corporations.

PREREQ: LAW 722

### **LAW 726 - Intellectual Property**

*College of Law*

3 credit(s) At least 1x fall or spring

Survey of the foundations of copyright, patent, unfair competition, and trade law. For students who wish to concentrate in intellectual property or who want a basic course as preparation for business planning or litigation practice.

### **LAW 727 - International Business Transactions**

*College of Law*

3 credit(s) Irregularly

This course provides an introduction to the transactional, regulatory, and litigation aspects of international business involving at least one private party. Major areas of substantive coverage include international sales of goods (with special focus on the United Nations Convention on the International Sale of Goods), licensing of technology, foreign direct investment, contract and tort liability in the United States and abroad, and the law proscribing corruption in cross-border transactions. We will also cover subsidiary litigation and regulatory topics, such as choice-of-law analysis, international commercial arbitration, international civil litigation in U.S. courts (focusing on jurisdiction and other procedural threshold issues), U.S. regulation of foreign investment and export controls, and intellectual property protection.

### **LAW 728 - International Law**

*College of Law*

3 credit(s) At least 1x fall or spring

This course introduces students to the basic subjects, processes, and problems

of contemporary public international law. We begin by exploring the sources of public international law; the traditional role of states in international law formation; and the burgeoning role of international organizations, nongovernmental organizations, and subnational municipalities in transnational legal processes. Our attention then turns to the relationship between international law and U.S. law, including the principles that govern (and impede) the application of international law in U.S. courts. Rather than attempt to canvass the myriad subfields that comprise contemporary public international law, we devote sustained attention to four subjects: principles of jurisdiction, state claims to natural resources, the law of war, and international human rights. With this foundation in place, the course concludes with an invitation to grapple with several perennial critiques of the international legal system.

### **LAW 730 - Labor and Employment Law**

*College of Law*

2-3 credit(s) Irregularly

Organization and representation of employees, union collective action; collective bargaining, including the administration and enforcement of collective agreements.

### **LAW 732 - Federal Government Contracts**

*College of Law*

3 credit(s) Irregularly

Overview of government contracts. Course will cover pre-contract activity leading to contract award, contract types, and the contractual document with specific emphasis on the Federal Acquisition Regulations. Irregular course offering.

### **LAW 735 - Federal Criminal Law**

*College of Law*

3 credit(s) Irregularly

Examines substantive Federal criminal law, including the following topics: The Federal Role in Enforcement Against Crime, The Consequences of Jurisdictional Overlap, Fraud and Political Corruption, Mail Fraud, The Hobbs Act, Official Bribery and Gratuities, Drug Trafficking and Money Laundering, Currency Reporting Offenses, Group and Organizational Crime (including RICO), Anti-Terrorism Enforcement, The Criminal Civil Rights Statutes, The Federal False Statement



## GRADUATE COURSE CATALOG

Statutes, Obstruction of Justice, Sentencing Guidelines, and Forfeiture.

### **LAW 736 - The Law and Literature**

*College of Law*

3 credit(s) Irregularly

The focus of this course/seminar will be the law, the legal process, and concepts of justice as they are treated in a number of works of fiction as well as by lawyers in judicial opinions and other writings. The fictional readings will be short stories (Tolstoy, Faulkner, Glaspell, Hawthorne, Cather, de Maupassant, Vonnegut, etc.) and two novellas. In-depth consideration of the materials should demonstrate to the student the wide gamut of emotions, human relationships, and ambiguities with which case law frequently does not adequately deal. The materials raise issues of morality, natural law, divine law, mercy, the limits of advocacy, and ethics all of which must deeply concern any lawyer who wishes to strive to fulfill the true object of his or her profession.

### **LAW 738 - Communications Law**

*College of Law*

3 credit(s) Irregularly

Examination of the market structure and regulation of the communications industry as well as the relationship between the communications industry and the several branches of government. Topics include the authority of state and federal government to license spectrum and to regulate broadcast communications and cable, satellite, wireline and wireless services. Other topics may include broadcast fairness, political broadcasting and regulation of the Internet and emerging technologies.

### **LAW 742 - Entertainment Law**

*College of Law*

3 credit(s) Irregularly

Will simulate actual entertainment law practice and will emphasize the process by which contracts are developed and entered into so as to make use of copyrighted properties. The student will be required to draw upon and further develop multiple legal skills, particularly substantive analysis, drafting, analysis of and otherwise dealing with "paper" from the other side, practical research, formulation of advice, and participation in various kinds of oral discussions.

### **LAW 743 - New York Civil Practice**

*College of Law*

3 credit(s) At least 1x fall or spring

Civil practice law and rules and interpretive cases and other aspects of civil litigation in New York.

### **LAW 746 - Professional Responsibility**

*College of Law*

3 credit(s) Every semester

Relationship of the lawyer to the profession, community, client, and society. ABA Code of Professional Responsibility, ABA Model Rules of Professional Conduct, and American Lawyer's Code of Conduct.

### **LAW 747 - Real Estate Transactions**

*College of Law*

3 credit(s) At least 1x fall or spring

Standard residential and commercial real estate transactions, including consideration of brokerage arrangements, contracts of sale, methods of financing, methods of title protection, mortgage markets, construction loans, and permanent financing.

### **LAW 748 - Sports Law**

*College of Law*

3 credit(s) Irregularly

This course will examine various areas of the law as they relate to sports (both professional sports and intercollegiate sports), including such areas as contract law, antitrust law, labor law, law regulating player agents, gender discrimination law, and personal injury law.

### **LAW 749 - Religious Faith, Secular Nationalism, and the Practice of Law**

*College of Law*

2 credit(s) Irregularly

This course will explore the relationship between an individual's religious beliefs and the practice of law, and will be centered around the important and growing body of literature of the religious lawyering movement. Initially, the course will take up the fundamental question of whether one can be religious and be a lawyer. In this context, the course will explore the extent to which a secular disposition about law, for example, that law is America's civil religion or an expression of American nationalism precludes a space for faith in the practice of law. Subsequently, the course will examine how religious beliefs might be integrated into

the practice of law, and what practicing as a religious lawyer might look like.

### **LAW 750 - Securities Regulations**

*College of Law*

3 credit(s) Irregularly

Securities Act of 1933: regulation of the distribution of securities, including the registration process, exempt securities, exempt transactions, enforcement, and liabilities. Securities Exchange Act of 1934: regulation of trading in securities and related market activities, including tender offers proxy solicitations, market manipulation, disclosure requirements, insider trading, and express and implied civil liabilities.

### **LAW 753 - Legal Interviewing**

*College of Law*

2 credit(s) Irregularly

This course will combine the theory and practice of legal interviewing. The substantive and theoretical framework for legal interviewing will be examined and then applied in practice. Practical applications will include both simulations and at least two live interviews of real clients with real-time, real-life legal problems.

### **LAW 754 - Trial Practice**

*College of Law*

3 credit(s) Every semester

Courtroom techniques and tactics drawing on substantive and procedural law and evidence courses. Students prepare and conduct trial exercises under direction of instructor. Repeatable

### **LAW 755 - Trademarks and Unfair Competition**

*College of Law*

3 credit(s) Irregularly

A practical review of current intellectual property issues relating to trademarks, trade dress, false advertising, internet and the First Amendment, and rights of publicity. The course features mock courtroom presentations by experienced litigators and guest presentations by practitioners in the field.

### **LAW 756 - Lawyering Skills**

*College of Law*

3 credit(s) At least 1x fall or spring

Lawyering Skills - Basic: The course covers the practical lawyering skills essential for

## GRADUATE COURSE CATALOG

the successful and effective representation of clients in various areas of the law, including criminal law, corporate, real property and zoning, estates and trusts, litigation, appellate practice, and other area of practice. When discussing those areas of law, special emphasis will be placed on client interviews, ethical issues, negotiation techniques, counseling skills, drafting documents, making presentations, persuasive writing, decision-making, and, most importantly; critical and strategic thinking. By doing so, the course should condense and weave together a broad range of experiences and exercises which the students may encounter in the actual practice of law. **Lawyering Skills - Planning for the Non-Traditional Family: Drafting of legal instruments for individuals and their loved ones who do not fit the traditional nuclear family model.** Topics would include domestic partnership agreements, estate planning instruments (e.g. wills, trusts, and corporate formations), tax planning, and second-parent adoptions.

### **LAW 757 - Mergers & Acquisitions**

*College of Law*

2-3 credit(s) Irregularly

This course is for students with a strong interest in capital markets, public corporations, and modern corporate practice. Topics covered include source of gains in business combinations, duties and risks of sellers, buyers' risks in acquisitions, and securities laws.

### **LAW 759 - Computer Crimes**

*College of Law*

3 credit(s) Irregularly

This course is organized around three questions: 1) what conduct involving a computer is prohibited by criminal law? 2) What legal rules govern the collection of digital evidence in criminal investigations? 3) What powers do state, national, and foreign governments have to investigate and prosecute computer crimes? More specifically, topics will include computer hacking, computer viruses, encryption, online undercover operations, the Fourth Amendment in cyberspace, the law of Internet surveillance, laws governing access to e-mail, forum-shopping, jurisdiction, national security, and federal & state relations and international cooperation in the

enforcement of computer crime laws. Special attention will be paid to cyber terrorism. No advanced knowledge of computers and the Internet is required or assumed.

### **LAW 760 - Patent Prosecution**

*College of Law*

3 credit(s) Irregularly

This course is designed primarily for students who plan to practice in the area of Patent Law before the U.S. Patent and Trademark Office (PTO) which permits only registered patent attorneys and agents to represent clients in the prosecution of patent applications. The course will cover the process of procuring a patent from the U.S. Patent and Trademark Office. The course will also enhance students' understanding of the legal standards for patentability (building upon the principles explored in Patents and Trade Secrets), will familiarize students with the PTO's elaborate rules of practice in patent cases, and will provide students with practice applying these standards and rules to facts and situations encountered in basic patent prosecution practice.  
PREREQ: LAW 765

### **LAW 761 - Appellate Advocacy Skills**

*College of Law*

3 credit(s) At least 1x fall or spring  
Development of skills used in the appellate process, including postjudgment practice, creation of the record, finding error, brief writing, and oral argument structure, emphasizing written skills. Required for second-year students seeking Moot Court Board membership.

### **LAW 763 - Disability Law**

*College of Law*

3 credit(s) At least 1x fall or spring  
This class deals with federal laws prohibiting discrimination against people with disabilities, with particular emphasis on the American Disabilities Act of 1990. The goal of the course is to provide you with a legal, conceptual, and practical understanding of people with disabilities, forms of discrimination that occur on the basis of disability, and the protections against such discrimination that currently exist.

### **LAW 764 - Bankruptcy Law: Creditors Rights and Debtors Protection**

*College of Law*

3 credit(s) Irregularly

This course will cover state law remedies (how to collect a judgment), the rights of secured and unsecured creditors under state law and in bankruptcy, and the protections available to individuals and businesses in bankruptcy.

### **LAW 765 - Patents and Trade Secrets**

*College of Law*

3 credit(s) At least 1x fall or spring

This course examines the U.S. patent system and focuses on issues of patentability, validity, and infringement. The protection and enforcement of trade secrets are also covered.

### **LAW 768 - Copyright-Literary and Artistic Works**

*College of Law*

3 credit(s) At least 1x fall or spring

Advanced copyright course. In-depth exploration of a number of copyright law areas in music, fine arts, and film; issues on the boundaries of copyright law. Includes fair use, work for hire in both industry and academia, compensation for ideas, moral rights, right of publicity, the impact of new technologies on research, data bases and fact-based works, infringement on unpublished works, and international copyright protection.

PREREQ: LAW 726 OR LAW 742

### **LAW 769 - Trial Practice-Advanced**

*College of Law*

2 credit(s) Every semester

Advanced training in direct and cross-examination, witness interviewing and preparation, negotiation techniques, voir dire and jury preparation, final arguments, discovery, pretrial and trial "motions, pretrial conferences, jury trial techniques, posttrial procedure.

PREREQ: LAW 754

### **LAW 770 - Corporate Compliance Law**

*College of Law*

3 credit(s) Irregularly

This course examines the rules and standards that govern the burgeoning subject of compliance and risk management. It will examine questions of governance: boards

## GRADUATE COURSE CATALOG

of directors, executives and third party vendors. It will examine the compliance function, organized by the nature of the enforcer: managers, regulators, prosecutors, whistleblowers, gatekeeper and plaintiffs; attorneys. It will also examine particular areas of law: information security, off-label drugs, foreign corrupt practices, money laundering, sexual harassment, etc.

### **LAW 772 - Alternative Dispute Resolutions**

*College of Law*

3 credit(s) Irregularly

An introduction to the spectrum of processes other than courtroom litigation that are available for resolving disputes. This includes such "pure" processes as negotiation, mediation, and arbitration, and such "hybrid" processes as the Mini-Trial and the Summary Jury Trial.

### **LAW 774 - Chinese Law**

*College of Law*

3 credit(s) Irregularly

Focus on the development of the Chinese legal system since the founding of the People's Republic of China in 1949, with due attention to social, political, and economic factors. Close examination of areas of substantive and procedural law, such as constitutional law, professional responsibility, criminal law and procedure, and labor law.

### **LAW 775 - Internet Law**

*College of Law*

3 credit(s) Irregularly

A survey of legal issues relating to computers networks, including electronic commerce, the protection and enforcement of proprietary rights in software and electronic works, privacy and security, and content regulation. This course also explores the evidentiary use of computer records and other emerging issues in computer law.

### **LAW 777 - Elder Law**

*College of Law*

3 credit(s) Irregularly

This course will address ethical issues related to the competency assessment of elder clients. Income maintenance, including Social Security, Supplemental Security Income, and other public and private pensions as well as Medicare and Medicaid will be considered. Guardianship, long-term care, and estate planning will be considered

as well. Additional topics may include employment discrimination, housing, health care decision making, and elder abuse.

### **LAW 778 - International Human Rights**

*College of Law*

3 credit(s) Irregularly

After introducing human rights law in the context of a case study on the death penalty, this course examines international human rights law from both a practical and theoretical perspective. The course is designed to provide students with an informed and critical perspective on international instruments, intergovernmental organizations, and domestic legal arrangements articulating and implementing human rights. Topics will include the historic origins of modern human rights law; the content of and connections between civil, political, social, and economic rights; relationships between human rights law, international criminal law, and the law of armed conflict; transnational strategies associated with implementation and enforcement of human rights law; the importance of soft law; and international responses to mass atrocities.

### **LAW 780 - Adoption Law**

*College of Law*

3 credit(s) Irregularly

Legal theories involved in adoption law, the attorney's role in adoption practice, and the various legal documents involved.

### **LAW 782 - New York Criminal Procedure**

*College of Law*

3 credit(s) Irregularly

This course will supplement existing courses in Constitutional Criminal Procedure and complement the applied learning course in Advanced (NY) Criminal Procedure. The course is desirable: (1) as a vehicle for students to learn differences between Federal and New York Constitutional Criminal Procedure; (2) as a vehicle for students to learn procedural rules which are important despite the lack of constitutional status; and (3) as a vehicle for students to prepare for the New York bar exam and/or practice of criminal law in New York.  
PREREQ: LAW 708

### **LAW 783 - Law and Popular Culture**

*College of Law*

2-3 credit(s) Irregularly

Law is everywhere around us, and the most unlikely of places are the best subjects to examine. Even in contexts outside the obviously legal, law manifests, constantly updating itself. If traditional legal education and other formal legal representations represent the "high culture" of law, what is deemed popular culture, that which is modern, material, and local--unabashedly represents the "low." This class examines the dissemination of legal information to the masses and the concomitant effect of the masses upon the law. By examining film, literature, art, and music, students will learn the dialectical influences of law and humanity, and how this is translated into various media.

### **LAW 784 - Employment Law**

*College of Law*

3 credit(s) Irregularly

This course will cover a wide variety of topics in the employment relationship. It is a complex area covered by both federal and state statutes as well as common law. Topics that will be covered include establishing the employment relationship, terms and conditions of employment, health insurance and other fringe benefits, the work environment, and terminating the employment relationship. This course may include an experiential component consisting of the opportunity to represent a client in an unemployment insurance board hearing.

### **LAW 785 - Advanced Torts**

*College of Law*

3 credit(s) Irregularly

This course will explore the substantive laws of products liability, medical malpractice, workplace injuries, defamation, and invasions of privacy; through use case studies will develop action plans, draft pleadings, and other mechanisms used in tort litigation.

### **LAW 787 - Children and the Law**

*College of Law*

3 credit(s) Irregularly

Parent-child, child-state relationships. Education, health, welfare, child abuse, juvenile delinquency, and representation of children will be covered in this course.

## GRADUATE COURSE CATALOG

### **LAW 788 - Immigration Law**

*College of Law*

3 credit(s) Irregularly

Immigration and Nationality Act of 1965, exclusion and deportation, and nonimmigrant status.

### **LAW 790 - Counterterrorism and the Law**

*College of Law*

3 credit(s) Irregularly

This course will concern U.S. and international law responses to terrorism. The course will include a brief overview and history of terrorism. Topics will include legal definitions of terrorism, investigation and intelligence collection in the U.S. and abroad, apprehension of terrorists across borders, immigration and border controls, prosecution of terrorists, sanctions against terrorism and its supporters (including reprisal, assassination, asset freeze and forfeiture), crisis and consequence management in the event of terrorist attacks (including martial law and detention, domestic use of the military, catastrophic emergency measures, hostage and rescue operations), and law reform issues.

### **LAW 791 - Secured Transactions**

*College of Law*

3 credit(s) Irregularly

This course deals in depth with the creation and perfection of security interests in personal property, priority claims, and remedies upon debtor's default under Article 9 of the Uniform Commercial Code. Additionally, some consideration is given to related concepts under the Federal Bankruptcy Code.

### **LAW 792 - International Organizations**

*College of Law*

3 credit(s) Irregularly

Course Description Required.

### **LAW 794 - Regulatory Law & Policy**

*College of Law*

3 credit(s) At least 1x fall or spring

An advanced exploration of regulatory decision making, focusing on the reasons for and methods used in implementing regulation; how policy and politics impact on regulatory decisions and relate to the legal authority of agencies; case studies of regulatory programs, their successes and failures. Course requirements include one

or more research papers which will meet the College of Law writing requirement. Administrative Law or Public Administration and Law are prerequisites for this course. This one-semester course is a J.D./M.P.A. program requirement.  
PREREQ: LAW 702

### **LAW 795 - Canadian Law**

*College of Law*

3 credit(s) Irregularly

The course is intended to provide students with an overview of the law and legal systems of Canada. It will explore Canada's historical development, legal structure, and place within the common law world. Covering topics such as Federalism, Responsible Government, the Charter of Rights, Family Law, Conflicts of Law, Criminal Law and Procedure, First Nations, Hate Speech, and Business Law the course will concentrate on both the similarities and differences with U.S. law and the probable reasons for the differences. Some attention will be devoted to the law of Quebec and the duality of its legal system. At least one week will be spent on conducting legal research in Canadian Law, but the course is not a research course.

### **LAW 796 - Constitutional Criminal Procedure - Adjudicative**

*College of Law*

3 credit(s) At least 1x fall or spring

Constitutional and statutory requirements for adjudicative procedures in criminal cases. Topics include accus-atory instruments, bail, discovery, guilty pleas, double jeopardy, speedy trial, fair trial, jury trial, assistance of counsel, and confrontation.

### **LAW 800 - Foundational Skills for Attorney Licensing**

*College of Law*

2 credit(s) At least 1x fall or spring

The course will provide an understanding of the bar review and bar exam process as well as the skills necessary to be successful in the licensing process. A significant portion of the course will be spent discussing how to approach and do well on practice bar exam questions, including essays, performance tests and multiple choice questions. Time will be spent discussing how to learn from bar review outlines and lectures, and how to conduct a self-assessment to understand personal study habits and adjustments which

must be made prior to the review of bar-tested subjects. The course will also cover specific topics and skills to help students understand how to manage their attitude, stress, and study time.

### **LAW 803 - Law Practice Management**

*College of Law*

2-3 credit(s) Irregularly

Law Practice Management comprehensively examines all aspects of the formation, management, development and growth of a law firm. The course will focus primarily on solo practitioners and small partnerships. The course will explore forms of partnership, licensing requirements, insurance, human resources and employment practices, accounting and finance, information technology, marketing and business development, and dissolution.

### **LAW 804 - The Law of Genocide Seminar**

*College of Law*

3 credit(s)

This seminar examines the historical, philosophical and political origins of statutes that outlaw crimes against humanity and genocide. It then focuses on aspects of the first post-World War II trial of the SS personnel at the Nazi concentration camps of Bergen-Belsen and Auschwitz, followed by the International Military Tribunal at Nuremberg; the Eichmann Trial in Jerusalem; the trial in Tel Aviv of the head of the Jewish police of a Polish ghetto; the trial of former Serbian and Yugoslav president Slobodan Milosevic before the International Criminal Tribunal for the Former Yugoslavia, and related proceedings; as well as certain prosecutions before the International Criminal Tribunal for Rwanda, in particular those relating to incitement to genocide on the part of newspapers and radio broadcasters. It will be compare and contrast aspects of these trials. Also discussed is the impact of the Convention on the Prevention and Punishment of the Crime of Genocide, and consideration of the development of the law relating to genocide and crimes against humanity over the course of the past 70 years and its contemporary implications. The goal of the seminar is to provide the students with a broad awareness of the jurisprudential, historical, political, and social dimensions that underlie the ongoing efforts to criminalize and prosecute ethnically,

## GRADUATE COURSE CATALOG

religiously or racially motivated mass murder and related atrocities.

### **LAW 809 - Advanced Disability Law and Policy**

*College of Law*

3 credit(s) Irregularly

This is a one-semester applied learning course. The goal of this course is to expose students to disability law and policy as applied to real situations. Each student will work on a project that has originated from a request from a "real client" or client organizations, such as the National Council on Disability, the World Bank, Mental Disability Rights International, or other organizations that work with and for people with disabilities.

### **LAW 811 - General Counsel**

*College of Law*

3 credit(s) Irregularly

This applied learning course is designed to expose students to a number of areas of practice that are common for house counsel. Students will work individually and in teams and undertake simulations in litigation management, agreement negotiation and drafting, employment problems, and intellectual property practice. Students will learn how lawyers handle complex problems in such diverse areas and may conduct research, draft agreements and file memoranda, conduct interviews, and negotiate to resolve the issues found in the practical exercises that will be the backbone of the course.

### **LAW 812 - Legal Counseling**

*College of Law*

2 credit(s) Irregularly

Legal Counseling will introduce students to the skills necessary to provide counseling to clients. Classes will involve a combination of interactive discussion and counseling simulation exercises. The class will cover identifying clients' legal needs and objectives, and then assisting clients in evaluating options, weighing consequences, and decision-making.

### **LAW 813 - The Rule of Law in Post Conflict Reconstruction Seminar**

*College of Law*

3 credit(s) Irregularly

This course addresses the legal challenges

faced by the international community in reconstructing societies following armed conflict or other crises. The course is divided into two sections. Part one focuses on a number of core issues, including defining and identifying the rule of law; the relationship between the law and reconstruction; the question of transitional justice and international criminal law; international human rights; protecting vulnerable populations; and regulating the security sector. In the second part, the focus moves to case studies, South Africa, Rwanda, Haiti, Sierra Leone, Afghanistan and East Timor to test some of the theoretical premises as well as stimulate debate.

### **LAW 814 - Technology Transactions Law**

*College of Law*

3 credit(s) At least 1x fall or spring

This course provides students with an in-depth understanding of the technical, business, and legal factors involved in bringing new technologies to market. This is a year-long course that covers topics ranging from basic intellectual property law and performing patent searches to economics to finance and business areas such as financing technology innovation. The course includes multiple guest lectures from practicing professionals involved in technology transactions at universities as well as private companies and in law firms. At the conclusion of the course, students will have a broad knowledge of technology innovation law and practice. Repeatable

### **LAW 815 - Technology Commercialization Research Center**

*College of Law*

3 credit(s) At least 1x fall or spring

This applied learning course allows students interested in the areas of intellectual property and business law to apply their knowledge to actual new technology projects. In this year-long course, students work in teams consulting with companies, entrepreneurs or universities that are seeking to commercialize new technologies. The finished product includes a report and presentation that cover such things as: analyzing the technology, investigating intellectual property protection, examining the market landscape, identifying any regulatory concerns, and exploring

opportunities for funding or licensing. Technology Transactions Law is a prerequisite for this course but may be taken concurrently. COREQ: LAW 814

### **LAW 816 - Commercial Real Estate Practice**

*College of Law*

2 credit(s) Irregularly

This applied learning course will build on the fundamentals of the Real Estate Transactions I course and will focus on the development of a regional shopping mall which will provide a framework for the course outline. The course will not only provide ways to convey many of the concepts found in this type of real estate, but will also provide the basis to explore the relationship between the real estate concepts and the business framework of which they become a part. Case law will be utilized to supplement certain interpretations of Real Property Law. PREREQ: LAW 747

### **LAW 817 - Military Law and Procedure Seminar**

*College of Law*

2 credit(s) Irregularly

Military Law and Procedure is an overview of the military justice system and its procedural application in today's Armed Forces of the United States. Students will read, discuss, and practice how the Uniform Code of Military Justice and its procedural applications ensure proper discipline within the ranks of today's armed forces. The course will trace the history of discipline within those armed forces, the development of the rule of law in the military, the practice aspects of advocating before a courts-martial, as well as understand the non-judicial and administrative aspects of discipline in the Army, Navy, Air Force, and Marines. Additionally, the students will study the application of the UCMJ on the battlefields of Iraq and Afghanistan, as well as the new challenges faced by commanders and their legal advisers in the battlefields of tomorrow.

### **LAW 819 - Family Law Mediation and Collaborative Law**

*College of Law*

3 credit(s) Irregularly

This Course will focus on alternative dispute resolution in the family law area. Students

## GRADUATE COURSE CATALOG

will study mediation and collaborative law through written materials and mock exercises. The ethical issues involved in these forms of ADR will also be addressed.

### **LAW 821 - Domestic Violence**

*College of Law*

3 credit(s) Irregularly

This course will analyze case law as well as other text and articles applicable to domestic violence cases. One of the objectives of this course will be to expose, through class discussions, some of the misconceptions regarding domestic violence and its victims. Students will have the opportunity to participate in simulated exercises designed to develop interviewing and information gathering techniques necessary for the thorough representation of the domestic violence victim in court. Visits to the class by guest speakers are also planned. The course will delve into all of the possible issues that need to be addressed in representing the domestic violence victim.

### **LAW 822 - National Security & Counter Terrorism Research Center**

*College of Law*

3 credit(s) Irregularly

The National Security and Counterterrorism Research Center serves as a working research laboratory for law and other graduate students interested in national security and counterterrorism issues. Students will work in teams on research projects assigned by the director. Other faculty within Syracuse University and experts outside the University may also participate in the development and implementation of research projects. Typically, the projects will involve assessments of legal and law-related issues of concern to federal, state, and local government officials in responding to national security and terrorism threats. Other projects may examine private sector security concerns. Research projects may be pursuant to contract arrangements with sources external to Syracuse University, while others may be developed from within the College of Law or the University.  
COREQ: LAW 700 AND LAW 790

### **LAW 824 - Negotiations, Mediation & Arbitration as Alternative Methods of Dispute Resolution**

*College of Law*

3 credit(s) Irregularly

This course is designed to enable 2L and 3L students the opportunity to improve their negotiation skills and utilize those skills ethically during various stages of negotiations whether in the business setting, pre-litigation or during the litigation process. The course is also designed to assist 2L and 3L students enhance their advocacy skills in order to conduct successful mediations and/or arbitration hearings. Participants in this class will be required to read either *Bargaining for Advantage* by G. Richard Shell or *Effective Legal Negotiation and Settlement* (Fifth Edition) by Charles B. Cravortz, a text on successful negotiation practices and to participate in a mock negotiation, mediation and arbitration exercises. Students in this class will have the opportunity to improve their advocacy skills in these important alternative dispute resolution settings.

### **LAW 827 - Corporate Financing Transactions**

*College of Law*

1.5-2 credit(s) Irregularly

This course combines diverse aspects of business and law education in a transaction-based setting. It guides students through a syndicated commercial loan, including the structuring, negotiation, pricing, and documentation.

COREQ: LAW 712

### **LAW 828 - Advanced Criminal Evidence**

*College of Law*

3 credit(s) Irregularly

The course will cover Federal and New York rules of evidence, and constitutional rules pertaining to the rights to confront and present a defense, in connection with a range of issues typically arising in criminal cases. Weekly assignments will be designed to simulate work that would be performed in a prosecutor's or defender's office. They will include motions in limine and supporting memoranda, inter-office trial preparation memoranda, and both trial court and appellate advocacy of evidentiary issues. The course is a limited enrollment course and the grade will be based exclusively on written and oral advocacy.

PREREQ: LAW 718

### **LAW 831 - Refugee and Asylum Law**

*College of Law*

3 credit(s) Irregularly

The 1951 Refugee Convention relating to the Status of Refugees is over 60 years old. The number of people forcibly uprooted by conflict and persecution stands at over 40 million and is unlikely to diminish. Against this background, international debates continue regarding the nature of the protection that refugees should be granted, the role of the international community, and the obligations of receiving countries towards refugees. This course aims to introduce students, through comparative legal studies, to how the 1951 Refugee Convention has developed. The module covers the international legal framework for refugee protection, its main challenges and shortcomings, by referring to how international, regional, and national courts interpret and implement refugee and asylum law. Main areas of discussion will include international criteria for the attainment, exclusion and withdrawal of refugee status, the development of the non-refoulement principle, and the changing role of UNHCR, as well as how the EU, the AU and OAS employ the term 'refugee' while also noting how states react to those decisions.

### **LAW 832 - Cyber Security Law and Policy**

*College of Law*

3 credit(s) Irregularly

The 2009 White House Cyberspace Policy Review states: The United States needs to conduct a national dialogue on cybersecurity to ensure an integrated approach toward the Nation's need for security and the national commitment to privacy rights and civil liberties guaranteed by the Constitution and law. This three-credit, one-semester seminar intends to be part of that dialog. Some cyber security law already exists. Other laws of long standing present issues of applicability or adaptability to the cyber realm. Many proposals remain in Congressional committees, such as bills that would mandate security measures for all entities receiving federal money, establish a federal certification for technicians serving computer networks of entities receiving federal money, and provide the President with authority to "pull the plug" on national Internet

## GRADUATE COURSE CATALOG

connectivity in times of emergency. This course is premised on the belief that much policy and law to implement it will be made in the next few years to institute a national policy to protect U.S. interests in cyberspace. The seminar uses an interdisciplinary approach, but no special background or prerequisites are required.

### **LAW 834 - Social Deviance and the Law**

*College of Law*

3 credit(s) Irregularly

Deviant behavior characterizes a course of action that violates recognized social norms. First, formal social norms govern human behavior through legal institutions. Conversely, informal social norms gather energy through no concrete regulatory structure, but through social approbation. This course focuses on both types of norms. Students will explore informal norms as an alternative way of thinking about power and governance outside the provenance of law. They will develop critical thinking skills about the authority of manners and society as equally forceful, or perhaps even more so, than formalized law. This interdisciplinary course brings together law, literature, philosophy, and film. Topics covered will be: Manners, Propriety, Violence, Sexuality, Blue laws, and Intercultural competence.

### **LAW 836 - Class Actions: Complex Litigation**

*College of Law*

3 credit(s) Irregularly

Class action is the most controversial procedural device. After studying the technical issues (prerequisites, certification, notice, opt out, settlement, res judicata) and its specific applications (consumer, antitrust, security, discrimination, mass tort) in concrete cases (tobacco, asbestos, Wal-Mart), you will be able to better understand the political and social implications behind class actions. Although class actions may bring social change and right injustices, it may also be improperly used to harass and blackmail defendants into settling non-meritorious claims. The course also deals with non-class aggregation, like joinder, impleader, interpleader, intervention, consolidation, transfers, and bankruptcy. It is also an excellent opportunity to review civil procedure concepts.

### **LAW 837 - European Union Policy: Human Rights and Security**

*College of Law*

3 credit(s)

This course is an introduction to European Union Law. The course contains four thematic units. Part 1 introduces the European Union and its main institutions. Students will familiarize themselves with the evolution of the EU legal doctrines. Part 2 explores the development of European Human Rights Law and how the EU has approached human rights. Part 3 explores the way the EU deals with security, within the EU and in EU relations with the international community. Specific issues such as the challenge of European integration, the institutions of the EU, human rights in the post-9/11 period, counter-terrorism, and privacy in an era of security will be examined. The final part looks at the EU's foreign relations (EU-US and EU-Africa).

### **LAW 838 - Binary Economics & Property Rights Seminar**

*College of Law*

1-2 credit(s) Irregularly

One of the most important duties of lawyers is to help people identify and secure their essential rights and responsibilities. Serving clients effectively requires that lawyers ask the right questions. When addressing economic rights, here are nine important questions: (1) Why does wealth tend to concentrate in market economies even in times of great prosperity? (2) Why does the great promise of the industrial revolution (abundance and leisure) remain unfulfilled for most people? (3) Why does every generation of students graduate deeper in debt? (4) What is behind the adage, it takes money to make money? (5) How can more economic opportunity become more broadly distributed? (6) What are the growth and distributive consequences of the fact that most capital is acquired with the earnings of capital? (7) Is there a practical, efficient way to enable all people to acquire capital with the earnings of capital, without taking anything from existing owners? (8) What is the relationship between the distribution of capital ownership and the functioning of a democracy? (9) What role can lawyers play in pursuing these and related questions to better serve their clients, themselves, and society? This seminar will explore these

and related questions. The seminar will not require an above average mathematical aptitude or prior exposure to economics, but rather only an open mind and a willingness to approach economic issues from a foundation grounded in professional responsibility. Students will read assigned material, do additional reading of their own choosing, make an in-class presentation (optional), and write a paper that will satisfy the writing requirement for graduation.

### **LAW 839 - Law, Politics and the Media**

*College of Law*

3 credit(s) Irregularly

The American judicial system today operates in a complex environment of legal principle, political pressure, and media coverage. The separate elements of this complex environment are typically studied by different groups of individuals working from different perspectives. Law faculty tend to focus on legal principle; political scientists examine the influence of politics; and scholars of public communication assess the media. The goal of this course is to introduce students to the court system and its environment as a single, integrated subject of study. To this end, the course is taught by a team of faculty instructors drawn from law, journalism, and political science. Academic discussions are complemented by lectures from sitting judges, practicing lawyers, and working journalists. Topics to be covered in the course include: conventional understandings of judicial independence; contemporary public opinion of the courts; the ethics of good judging and good journalism; the politics of judicial elections and judicial appointments; the possibilities for judicial reform; the politics of judicial budgets; the media, tort reform, and the litigation crisis; trials of the century; the media treatment of wrongful convictions and cold cases; and the relationship between press coverage, the courts, and national security.

### **LAW 840 - Laws of Armed Conflict Seminar**

*College of Law*

2-3 credit(s) Irregularly

Mankind has attempted to regulate the horror of war for centuries. This seminar will review those attempts, focusing on the modern era. Particular attention will be paid to recent challenges related to the war on terror and the ramifications for future

## GRADUATE COURSE CATALOG

enforcement of these key principles. Any student interested in practicing national security law or going into international criminal justice must have a clear understanding of the law of armed conflict. This seminar will assist in that understanding. The student will have the opportunity to be involved in several practical exercises that will reinforce their learning and write a paper on various cutting edge issues, of their choosing, related to the law of armed conflict.  
Repeatable

### **LAW 841 - Real Estate Planning Seminar**

*College of Law*

3 credit(s) Irregularly

Through the use of case studies, basic financial analysis, and preparation and simulated negotiation of documents, this course will address selected topics in commercial real estate transactions, and will focus on the development of business knowledge and legal skills related to commercial real estate acquisition, financing and investment.

COREQ: LAW 747

### **LAW 846 - History of Regulation of Trade and Business**

*College of Law*

2-3 credit(s) Irregularly

This course explores the legal and moral principles of business and trade regulation over 5,000 years, including: ancient regulation of prices, usury laws, licensing, and other concepts as they evolved into our current system.

### **LAW 852 - Affordable Care Act Seminar**

*College of Law*

2 credit(s) Irregularly

This seminar explores four aspects of the Affordable Care Act also known as Obamacare. The first is the long history of advocacy for the federal government to declare health care a right and to provide public funding for all medical and hospital attention. The second will be a study of the contents of the ACA, attempting to understand how the legislation was conceived, written and passed. The third will be a study of the implementation of the law including the experience of the failed roll-out using the Internet. Finally, legal decisions arising from the law will be examined. This

course can be used to fulfill the legal writing requirement.

### **LAW 854 - Law & Social Sciences**

*College of Law*

3 credit(s) Irregularly

Legal study is increasingly interdisciplinary, making use of various other fields to challenge, inform, and assist legal theory and doctrine. This seminar will cover a number of social sciences - e.g. psychology, economics, sociology, political science, and anthropology - to examine the connections between law and other disciplines. Topics to which these social science approaches will be applied may include capital punishment, juries, race, gender, paternalism, media violence, obscenity, expert witnesses, judicial decision-making, and others based on students' interest.

### **LAW 857 - Jessup Mini-Course**

*College of Law*

1-2 credit(s)

The Jessup mini-course is designed to prepare student for effective participation in the Jessup International Moot Court Competition. Classes will focus on general principles of international law, research skills, and discrete international law topics arising from the Philip C. Jessup International Law Competition problem set. All class participants must be members of the SUCOL Jessup International Moot Court Team as advocates, memorialist or alternate. Arguing members and the memorialist receive two (2) total credits for this class. Alternates receive one (1) credit for the course.

### **LAW 858 - Property Law in the 21st Century: Advanced Topics in Property Law**

*College of Law*

2-3 credit(s) Irregularly

This seminar will examine current important issues in property law and theory, topics to which students may have been introduced during their first year, but that warrant investigation in further detail. The course will first review different notions of what property actually is, using historical and modern analyses both from political theory and from law. We will then consider the extent to which property concepts can be usefully employed to resolve an array of current social issues, such as the enforcement of surrogacy (parenting) contracts, the sale or other

control of body parts, the fate of human embryos, eminent domain and takings, an individual's control of personal information, employment rights, and environmental rights. Students will be exposed to and discuss the relevant law, where it exists, but will also pursue in more depth the conceptual and policy-based arguments that shape and underlie the public debates currently underway. A final paper will be required, designed to meet the college's writing requirement.

### **LAW 859 - Advanced Issues in Copyright Law**

*College of Law*

1 credit(s) Irregularly

### **LAW 860 - Business Valuation Law**

*College of Law*

3 credit(s) Irregularly

An understanding of the principles of valuation is essential to a wide array of legal practice areas ranging from corporate law to marital dissolution. This course will focus on the concepts and methodologies employed to evaluate privately held and publicly traded enterprises. The fundamental and market-based business valuation theories and techniques will be examined, including the capitalization of earnings method, the dividend discount model, the discounted cash flow method, the capital asset pricing model, and the efficient capital market hypothesis. Additional topics will include the applicability of minority and marketability discounts and the exclusivity of appraisal rights. Students will have the opportunity to analyze business valuation problems and discuss the implications of the various business valuation models.

COREQ: LAW 712

Repeatable

### **LAW 862 - Public Health Law Seminar**

*College of Law*

3 credit(s) Irregularly

This course deals with the law which empowers, tailors and limits federal, state and local governmental efforts to enhance and protect the health of the general population. It will make use of case studies of government educational and regulatory efforts in several areas of historic and very current controversy to examine issues which commonly arise with that law.



## GRADUATE COURSE CATALOG

The course will introduce students to the constitutional foundations and limits on the essential power of national, state and local governments and their officials to protect the health of individuals in areas where such protection may conflict with other important rights, such as with abortion, immoral behavior, religious practices and beliefs, and with seat belts, ferrets and fluoridation. It will examine the use of peculiarly public-health-protective techniques such as quarantine and other liberty-restricting methods in the context of traditional diseases such as tuberculosis, newer diseases such as HIV/AIDS, and more recent threats of pandemic (including the H1N1 flu) and biological terrorism. Recognizing the public health system's needs for accurate information in fashioning government responses and programs, the course will look at the law related to public health surveillance the law about the effective collection and maintenance of information and its use in biomedical research. In examining case studies about contagious diseases, environmentally-related cancers and DNA-banking, students will be exposed to tensions between the public health system's need for information and the privacy rights of individuals about whom such information is gathered.

### **LAW 864 - Estate Planning**

*College of Law*

3 credit(s) Irregularly

This course will explore estate planning from two perspectives. First, it will deal with the substantive aspects of estate and gift tax and property law (including joint interests, life insurance, and retirement plan proceeds) which must be considered in developing an estate plan. Wills, trusts, and other planning techniques will be considered in detail. Second, the practical aspects of dealing with estate planning clients will be considered in depth, including how to explain difficult technical matters to the client, how to present documents to clients in an understandable format, and issues of ethics and professionalism. Short drafting and writing exercises as well as a substantial paper, consisting of a package of client memoranda and documents, will be required. COREQ: LAW 715 AND LAW 717 Repeatable

### **LAW 865 - International Energy Law & Policy**

*College of Law*

3 credit(s) Irregularly

This course serves an introduction to elements of the international legal regime govern the exploration, extraction, exploitation, regulation and arbitration of natural resources in the developing world. Students will be required to submit a seminar term paper that would address on one of the aforementioned themes. The course begins with an introduction to public international law and principles applicable to energy and natural resource activities, including sovereignty over natural resources and sustainable development. Other resources  $\zeta$  genetic resources, water, wood, fish and mammals are also briefly examined. The second section of the course focuses on international legal regulations of specific energy sector: oil and gas, nuclear, and renewable sectors. The unique features of the legal regimes that have merged is that they must address and support the trans-boundary aspect of natural resources, as seen with the construction of oil and gas pipelines. The third section examines question of rights and the environment exploring issues relating to duty of care in relation to the extraction of resources. This part includes case study of trans-boundary pipelines development to illustrate, inter alia, the complex interplay of human rights, environment and other factors, and to identify the actors involved (including international financial institutions such as the World Bank) and the remedies routes available to affected individuals and groups. This links to Part IV, the accountability of non-state actors  $\zeta$  including multinational enterprises  $\zeta$  and institutions for environmental, human rights, and other consequences of their energy and natural resources activities. Examination of emerging best practice in mineral policy. Interfuse within the course is a policy-based review of the security aspect of natural resources, as these are susceptible piracy, hostage-taking and armed incursions, to security of supply in times of international emergency.

### **LAW 866 - Banking Law**

*College of Law*

3 credit(s) Irregularly

Federal and state laws and regulations

affecting banks in the United States.

### **LAW 867 - Property and Tax from Ancient Athens to Modern America**

*College of Law*

3 credit(s) Irregularly

This course covers how the ancients developed concepts of private property and tax, adjudicated disputes, and developed concepts that influence the law today. Development of legal theory assists in understanding practical applications of the law.

### **LAW 868 - Smart Grid: Sec. Prov. & Ecn**

*College of Law*

3 credit(s) Irregularly

Rapid deployment of advanced communication and networked computer control is revolutionizing the electric power system. The "Smart Grid" as it is often referred to, is allowing greater decentralization, potentially greater energy efficiency, and lower environmental impacts. The data being exchanged will be highly personal and granular, potentially compromising individual privacy and safety. If not done correctly, decentralized control will dramatically increase the range and severity of cyber security ventures. This interdisciplinary, team-taught course covers the fundamental engineering, economic, and legal principles underlying the grid. It focuses on building the skills needed to design and test the protocols, policies, and specifications for enabling technologies that will guarantee the security and integrity of the grid while preserving personal privacy and providing maximum market flexibility with minimal need for new regulation. Students who complete the course will be able to integrate four perspectives - technology, security, economics, and law - allowing them to lead the development of the next generation electric grid.

### **LAW 871 - Foreign Relations**

*College of Law*

3 credit(s) Irregularly

This course examines history, doctrine, and policy involving U.S. engagements with foreign governments, organizations, and individuals. Our focus will be the historical development and contemporary negotiation of the diverse legal orders, subjects, and spheres of action implicated

## GRADUATE COURSE CATALOG

in contemporary foreign relations. Economic relations will occupy much of our attention. Questions raised are: (1) With what method does the U.S. negotiate its coexisting obligations under conventional, customary; constitutional, statutory, and administrative legal orders? (2) What roles do legal subjects such as legislatures, executives, courts, agencies, non-state entities, non-governmental organizations, and multi-national corporations play in ordering foreign relations? (3) How do the foregoing methods and roles differ across contexts of war, occupation, aid, trade, sanctions, finance, and migration? We will address the preceding descriptive questions normative corollaries as well. By both canvassing and critiquing foreign relations history, law, and policy, students will acquire the basic knowledge and skills required for analysis and argument within the field.

### **LAW 872 - International Criminal/Civil Practice and Procedure Seminar**

*College of Law*

2 credit(s)

International Criminal/Civil Practice and Procedure prepares a student for the real world of practicing before international criminal courts and federal district courts related to human rights violations, as well as seeking redress before other world judicial bodies to include the International Court of Justice and the various regional human rights courts. This seminar will be an intensive study of case studies taking the student from initial allegations of war crimes or crimes against humanity, developing an investigative plan, drafting of indictments, preparing pre-trial motions, preparing for trial, and trial practice. Ancillary considerations related to civil suits before regional human rights courts and US federal district courts will be studied as well. The student written work product and presentations will form the basis of the grade at the end of the course.

### **LAW 882 - Judicial Decision Making**

*College of Law*

3 credit(s) Irregularly

To understand what the law actually is in practice, and to understand how it evolves over time, it is necessary to understand how judges decide cases. Understanding judicial decision-making also helps policy-makers develop beneficial policies regarding the

courts, including selecting judges who may or may not be influenced by politics or ideology, and developing educational opportunities for judges. Insight into the “judicial mind” also helps attorneys craft persuasive arguments. Thus, in this seminar we survey the legal, political science, and empirical literature on how judges make decisions. Topics to be studied, both from a theoretical and practical perspective, include: theories of judicial decision-making; judicial election and appointment; constraints under which judges operate; the impact of court structure on the decision-making process; judicial writing; clerks’ role in the decision-making process; the relationship between the media and the courts; judicial education; and the influence of public perceptions of the court. Class attendance and participation are required. Brief weekly responses and a final research paper are required; the paper will satisfy the College of Law Writing Requirement. The seminar complements other courses at the College of Law (e.g., LCR III: Judicial Writing or Law, Politics, and the Media), as well as opportunities at the Maxwell School and with the Institute for the Study of the Judiciary, Politics, and the Media.

### **LAW 883 - Central Challenges in National Security Law and Policy**

*College of Law*

3 credit(s) Irregularly

Using a series of case study modules that jump off the front page, the course examines critically the hardest U.S. national security law and policy challenges of the decades ahead. The case studies range from decisions to intervene and what laws apply if we do intervene in humanitarian crises, insurrections, or civil wars, and what laws should govern when we are involved; dealing with the Arab Spring; dealing with Iran and North Korea related to nuclear weapons; anticipating and controlling new technologies in warfare and surveillance; managing civil/military relations in protecting the homeland; countering the cyber threats to our infrastructure and cyber attacks waged by nation states, such as China and Russia; managing public health as a national security issue; resource depletion and global warming as a national security issue. Students will learn to integrate legal and policy analyses, and will gain lessons in how policy is made and implemented with significant legal guidance. Students

will present analyses of case studies to the class, and will write briefing memoranda concerning some of the case study modules. COREQ: LAW 700

### **LAW 886 - Animal Law**

*College of Law*

2-3 credit(s) Irregularly

This course addresses the status and treatment of nonhuman animals in numerous areas of law, as well as the history and theory of advocacy on behalf of non human animals.

### **LAW 888 - Consumer Law**

*College of Law*

3 credit(s) Irregularly

An introduction to federal and state regulation of the consumer market including unfair and deceptive practices; consumer credit regulation including truth in lending, usury, and predatory finance; debt collection; warranties; credit reporting and identity theft. The course will explore the on-going changes brought on by the Dodd-Frank Act and how federal fee-shifting statutes create opportunities for entrepreneurial law graduates. Students will review and analyze consumer contracts and statutes; draft legal documents based on real world scenarios; and draft comments and other advocacy materials on regulatory and legislative proposals.

### **LAW 889 - International Human Rights and Comparative Disability Law**

*College of Law*

3 credit(s) Irregularly

This course introduces students to recent developments in international human rights and comparative disability law, including an analysis of the UN Convention on the Rights of People with Disabilities (CRPD). The CRPD was entered into force in 2008 as the first treaty to protect the rights of people with disabilities under international law. This course is for law students and other graduate students who are interested in disability rights and international human rights law, generally. The course uses disability as a case study for the study of the development of international human rights protections for certain groups; the adoption, monitoring, and implementation of UN treaties; the role of regional human rights tribunals in enforcing human rights protections for

## GRADUATE COURSE CATALOG

people with disabilities; and the relationship between international human rights laws and domestic disability-related laws in selected countries.

### **LAW 891 - Climate Change: Science, Perception & Policy**

*College of Law*

3 credit(s) Irregularly

Climate change (global warming) is rapidly becoming one of the most pressing issues of the twenty-first century. This course introduces students to the challenges posed by climate change through a unique multidisciplinary exploration of the scientific, economic, policy, communicative, and even philosophical dimensions of the issue. The course will cover topics such as the current state of scientific knowledge about climate change, the role of the media in shaping public opinion on the issue, competing discourses of climate change, risk and uncertainty in decision-making, costs and benefits of different types of policies, the Kyoto protocol and other policy initiatives, actions being taken to address the issue, and the ethical dimensions of the choices facing humanity. Faculty from SU and ESF in law, economics/public administration, earth science, and environmental studies will co-teach this course and bring to students a unique dialog that crosses traditional disciplinary boundaries. Moreover, emphasis will be placed on drawing out the general lessons obtained from a multidisciplinary approach to climate change: many of the insights will be applicable to other complex, highly technical environmental problems. This course is intended to bring together students from a diverse range of backgrounds and does not have specific prerequisites.

### **LAW 892 - Capital Punishment Seminar**

*College of Law*

1-2 credit(s) Irregularly

The death penalty is society's ultimate legal sanction, meant to be used for the worst of the worst. Given the finality and enormity of the State's deliberate taking of a human life, the United States Supreme Court has developed a complex jurisprudence in an attempt to ensure that the death penalty is administered fairly and reliably. In this seminar, we will study this jurisprudence and evaluate its effectiveness. We will also explore issues concerning the actual

administration of the death penalty, such as methods and timing of executions, conditions on death row, women on death row, mental illness and competence to be executed, the sentencing of innocent persons to death, and clemency. In addition to traditional Casebook materials, we will use documentaries and case studies to get a fuller understanding of capital punishment.

### **LAW 895 - Problems in Case Analysis and Appellate Advocacy Skills**

*College of Law*

2 credit(s) Irregularly

Legal reasoning through practice in developing written and oral arguments and reaching solutions to legal questions taken from actual cases. The emphasis will be on analysis and reasoning, not on learning legal rules. Many of the problems will be modeled on cases in the New York Court of Appeals which resulted in four to three decisions where there is no "right answer." A discussion of some of these cases will inevitably entail arguments concerning social policy and legal philosophy.

### **LAW 899 - Atrocity Law and Policy: Practicing before International Criminal Tribunals**

*College of Law*

2 credit(s) Irregularly

International criminal law is a new discipline within the legal profession. Over the past 12 years, the discipline has developed at an exponential rate. Cutting edge rulings and decisions are setting the cornerstones in international criminal law for years to come. It is a rare opportunity for teachers, students, practitioners, and policy makers to be present at the beginnings of a new area of the law. Rarer still is the opportunity for students to be able to take a seminar from one of the senior international practitioners in the field, using his work as the basis for this seminar. Drawing upon unique experiences in West Africa, a great deal of the new ideas and fresh thinking began with our work as the Chief Prosecutor of the international war crimes tribunal in Sierra Leone, called the Special Court for Sierra Leone. The seminar will use, as a case study, the entire creative process in West Africa of establishing the Office of the Prosecutor of the Special Court for Sierra Leone; from planning, preparation, and executing the many tasks necessary to prosecute war

criminals in a forgotten and tragic land. Using real world and contemporary cases, vignettes, and scenarios this 2 credit hour seminar will give students a rare opportunity, to study and do research with the practitioner who created the entire prosecutorial plan to prosecute those who bore the greatest responsibility for war crimes and crimes against humanity that resulted in the murder, rape, maiming, and mutilation of over 1.2 million human beings.

### **LAW 901 - Washington Lawyer Externship Seminar**

*College of Law*

1-2 credit(s)

Client problems brought to a good D.C. attorney are almost always solved through a combination of legislative pressure, executive branch pressure, and perhaps ultimately litigation against either another party and/or an agency of the executive branch. Very often the best solutions to these problems are forged behind the scenes, the opposite of the way lawyers in other jurisdictions often serve their clients interests. This seminar will feature influential and successful D.C. attorneys and distinguished guest lecturers to discuss one or more client problems brought to them and how they went about a solution. Each week, students will go through a real case study problem set that the guest lecturer encountered in his or her practice, whether in government, a nonprofit, a corporation, or a law firm. After establishing a fact pattern, students will discuss the various options for solving the legal problem. Finally, students will hear from the guest lecturer how he or she actually attacked the legal problem, and the outcome if known. Students will also discuss projects that they have been working on along with any issues that may have arisen.

### **LAW 902 - Law in D.C. Externship Program Placement**

*College of Law*

5-12 credit(s)

The Syracuse Law Semester in D.C. Program will provide an elite professional and educational experience in a job market in which many of our students aspire to pursue careers. This externship experience provides students with an incredible opportunity to be exposed to the legal market of D.C., one that is unlike many others. With placements

## GRADUATE COURSE CATALOG

ranging from the Federal Bureau of Investigations, the U.S. Department of Justice, NASA, Securities Exchange Commission, U.S. Chamber of Commerce, Senate and House Offices, the D.C. Public Defender Service, the United Nations High Commission for Refugees, and a host of other nonprofit, federal military, federal government, political party, judicial and law firm placements, the options are premier and vast. Currently, there are over 65 placements for students to choose from. The program will be offered every summer, fall and spring semesters. The fall and spring semester programs will award 12 pass/fail credits for the 14 week externship placement and 2 graded credits for the Washington Lawyer Seminar. The summer program will award 5 pass/fail credits for the 8 week internship placement and 1 graded credit for the Washington Lawyer Seminar. Students will be expected to work a minimum of 35 hours per week in their placement, with attendance at the weekly seminar and post-seminar networking events, which allow students to build a professional network of contacts in the D.C. market.

### **LAW 903 - Criminal Defense Law Clinic**

*College of Law*

6 credit(s) Every semester

Student attorneys represent clients charged with misdemeanors and violations in Syracuse City Court. They engage in extensive fact investigation, interviewing, client counseling, and plea negotiations, and appear regularly in local courts. They also assist clients with civil matters related to the pending criminal charges

COREQ: LAW 746

### **LAW 909 - Bankruptcy Clinic**

*College of Law*

2 credit(s)

The pro bono bankruptcy clinic consists of a clinic open to second and third year students, and a pro bono volunteer program open to first year students. The upper division clinic students will represent an indigent client in filing a bankruptcy case and will be in charge of the team supervising the first year student volunteers. The clinic students will be responsible for obtaining from the clients all of the information required by the Bankruptcy Code for filing a bankruptcy case, organizing that information, drafting

the petition and schedules, and representing the client at the official meeting of creditors. Students will also address an legal issues that arise in the case. The class component will involve formal training in basic consumer bankruptcy law and practice, and an open discussion of issues that arise in the cases.

### **LAW 910 - Law in London: Clinical Internship**

*College of Law*

6 credit(s) Only during the summer

Students will spend the first week of the seven week program attending lectures by authorities in English law. This introduction to the English Legal System will prepare the students for their internships by providing an overview of the fundamental tenets of English law, with an emphasis on English legal institutions, court structure, the legal profession, and adjudicative procedure in both civil and criminal cases. Classes during this first week will meet for a minimum of 15 hours and will be supplemented by visits to one of the Inns of Court and the Houses of Parliament and by a guided tour of Legal London. Following this first week of classes, students will undertake six-week internships with barristers, solicitors, public agencies or other legal organizations, under the supervision of Syracuse University College of Law faculty. Internships are full-time jobs, and students are expected to work the normal hours at their placements. During this six-week period these internship experiences are augmented by once-a-week, two-hour evening seminars conducted by the program faculty and cooperating English practitioners.

Repeatable

### **LAW 912 - Elder Law Clinic**

*College of Law*

6 credit(s) Every semester

This clinical course will focus on representation of the elderly in a variety of substantive areas, with initial focus on administrative proceedings regarding public benefits, especially Medicaid. Students will have substantial opportunities to interview and counsel clients, conduct fact investigation, grapple with thorny ethical issues unique to elderly clients, and advocate for clients in a variety of settings, including in administrative proceedings. Students will have primary responsibility

for their cases, under the guidance of the faculty member. There may be opportunities for collaboration with medical staff from the SUNY Upstate Geriatric Clinic and other professionals working with the elderly.  
COREQ: LAW 746

### **LAW 914 - Low Income Taxpayer Clinic**

*College of Law*

3 credit(s) Every semester

The Low Income Taxpayer Clinic offers legal assistance to low income taxpayers who have controversies with the I.R.S. The controversies may include collection, examination, appeals or Tax Court matters. Student attorneys will also be involved in community outreach and education regarding income tax matters.

PREREQ: LAW 722

COREQ: LAW 746

### **LAW 920 - Externship Program**

*College of Law*

2-3 credit(s) Every semester

The Externship Program provides students with the opportunity to work with lawyers. The program consists of a two-credit seminar that meets once a week which discusses lawyering as a profession and a 2 or 3 credit yearlong externship placement during which students work under the supervision of a lawyer in offices throughout Upstate New York.

COREQ: LAW 746

### **LAW 921 - Externship Placement**

*College of Law*

2-3 credit(s) Every semester

This is a 2 or 3 credit externship placement where students work under the supervision of a lawyer in offices throughout Upstate New York.

### **LAW 922 - Securities Arbitration Clinic**

*College of Law*

6 credit(s) Every semester

Provides legal assistance to small investors who have lost some or all of their investments as a result of improper conduct on the part of stockbrokers, investment advisors, securities firms, and mutual funds. Students enrolled in the SAC provide representation to eligible investors who are required to use the arbitration process for the resolution of their disputes.

COREQ: LAW 746

Repeatable 1 time(s)

## GRADUATE COURSE CATALOG

### **LAW 923 - Disability Rights Clinic**

*College of Law*

6 credit(s) Every semester

The Disability Rights Clinic is dedicated to providing representation to individuals and groups in our community who are unable to secure representation elsewhere. One reason DRC clients are unable to find other lawyers to represent them is due to their lack of financial resources. In our community, as elsewhere, the vast majority of lawyers provide legal assistance only to those who can afford to pay for their services. And in recent years, federal funding, the major source of funding for legal services for people with low or no incomes, has been reduced dramatically. A second reason DRC clients are unable to find lawyers elsewhere relates to the types of cases they may have which may involve controversial issues or conflicts of interest for other lawyers. DRC student attorneys practice in federal and state courts, and before administrative agencies in a broad range of civil rights matters, including race, gender, age and disability discrimination, sexual harassment, prisoners rights, immigration, accessibility under the Americans with Disabilities Act, and employment matters.

COREQ: LAW 746 AND LAW 763

### **LAW 925 - Social and Economic Justice in South Africa**

*College of Law*

1 credit(s)

The week-long visit to South Africa will study the constitutional, economic, and social history of South Africa as it has moved from apartheid to a multi-racial republic. Students will visit the Constitutional Court; government agencies including the Truth and Reconciliation Commission and the Commission for Conciliation, Mediation and Arbitration; several townships and municipalities; and a historically Black and historically White University. The students will meet with Constitutional Court justices, government officials, and University faculty involved in social and economic justice issues and learn about the entrenched systemic poverty, racism, and injustice that is the legacy of apartheid, and the efforts including legislation, policies, and programs to reverse the effects of apartheid. Applications for this course must be completed and approved before registration.

### **LAW 926 - Veterans Legal Clinic**

*College of Law*

6 credit(s)

COREQ: LAW 746

### **LAW 930 - Pro Bono Scholars Program Seminar**

*College of Law*

2 credit(s)

### **LAW 931 - Pro Bono Scholars Program Externship**

*College of Law*

12 credit(s)

### **LAW 938 - Veteran's Clemency Project**

*College of Law*

3 credit(s) Irregularly

¿The Veterans Clemency Project is a 3-credit clinic course that will offer students an opportunity to advocate on behalf of eligible veterans who are currently incarcerated for drug-related crimes in federal prisons and who are seeking a reduced sentence because of their non-violent history and non-violent prison conduct. After studying clemency and sentencing issues, students will conduct detailed legal analysis to screen applications from inmates seeking clemency; depending on time and logistical constraints, students might have an opportunity to then draft a clemency petition for an inmate who is identified as a veteran. Students interested in registering for this course, which is a hybrid between a traditional doctrinal course and a traditional clinic, will need to submit an application to Professor Sanjay Chhablani (schhablani@law.syr.edu). For additional details, please visit the Blackboard site for the Office of Student Services.¿

### **LAW 955 - Community Development Law Clinic**

*College of Law*

6 credit(s) Every semester

The Community Development Law Clinic is one of only a handful of law school clinics nationwide which provide students the opportunity to represent not-for-profit housing and community organizations involved in affordable housing development and community economic development for people with low incomes. The Community Development Law Clinic was founded in 1988 with a grant from the United States Department of Education Clinical Legal

Experience Program. Since 1989, Associate Professor Deborah Kenn has directed the Community Development Law Clinic, which upon the conclusion of the United States Department of Education grant in 1992, has been funded in full by the College of Law. COREQ: LAW 746

### **LAW 957 - Childrens Rights & Family Law Clinic**

*College of Law*

6 credit(s) Every semester

This combined clinical offering is designed for students interested in developing legal skills in the area of children's rights and in handling various civil cases. Students will assist in cases pertaining to education, school disciplinary hearings, suspension hearings, children's access to public education and public housing. Students will also represent clients in court and in negotiations to enforce child and spousal support and on divorce and custody cases. Representation of the clients includes interviewing witnesses, gathering evidence, negotiation settlements, appearing in court, and conducting hearings and trials. During the seminar, students will discuss the fundamentals of interviewing, counseling, negotiation, and written and oral advocacy as well as the substantive areas of family and public interest law, public assistance, and social security.

COREQ: LAW 746

Repeatable

### **LAW 959 - Advanced Legal Research**

*College of Law*

3 credit(s) Irregularly

Advanced Legal Research expands upon the foundation of research skills acquired in the first year. The course addresses effective research methods and strategies, examines the structural and theoretical underpinnings of traditional and automated research systems, and explores specialized areas of research (such as legislative history, administrative law, and non-legal resources). Students will have ample opportunities to refine research techniques through hands-on practice sessions in the law library.

### **LAW 972 - Topics in Foreign, Comparative & Int'l Law Research**

*College of Law*

3 credit(s) Irregularly

## GRADUATE COURSE CATALOG

The purpose of this course is to offer students a working knowledge of legal bibliography and research methods, both in traditional print sources and in electronic formats, for conducting research in the laws of foreign countries, international law, and comparative law.

### **LAW 995 - Special Project**

*College of Law*

9 credit(s) Irregularly

## **Master of Laws**

### **LLM 900 - American Legal System**

*College of Law*

3 credit(s) At least 1x fall or spring

This course is designed to introduce students to United States law. The course will offer a survey of the United States legal system, an introduction to United States constitutional law and provide an overview of multiple areas of United States doctrinal law both substantive and procedural.

### **LLM 901 - Legal Writing for International Students**

*College of Law*

2 credit(s) At least 1x fall or spring

This course will instruct the student in legal research, writing and analysis. It is specifically designed for LLM students.

### **LLM 902 - International LL.M. Prep Course**

*College of Law*

1 credit(s)

An introduction to the process of American legal education and assessment. The class will teach an introduction to the Socratic method, the case briefing system of legal analysis and introduce skills in preparation for common legal assessment methods, including case briefing, case analysis, exam taking methodology, and other essential skills.

### **LLM 914 - Technology Innovation Law & Practice**

*College of Law*

3 credit(s) Every semester

This course provides LLM students with an integrated understanding of the technical, business, and legal factors involved in bringing new technologies to market. This is a year-long course that combines traditional and applied learning on topics

ranging from basic intellectual property law and performing patent searches to economics to finance and business areas such as financing technology innovation. The course includes multiple guest lectures from practicing professionals involved in technology transactions at universities as well as private companies and in law firms. At the conclusion of the course, students will have a broad knowledge of technology innovation law and practice. Students will apply knowledge to actual new technology commercialization projects. Students work in teams consulting with companies, entrepreneurs or universities that are seeking to commercialize new technologies. Finished products include an in-depth report and presentation covering such things as: analyzing the technology, investigating intellectual property protection, examining the market landscape, identifying any regulatory concerns, and exploring opportunities for funding or licensing. Students will also engage in client consults and short term research projects.

Repeatable, 3 credits maximum

## **College of Law Faculty**

**Aviva Abramovsky**, Associate Dean for International Initiatives; Professor of Law; Director of the LL.M. Program for Foreign Law Graduates; Co-Director, Law in London Program, Kauffman Professor of Entrepreneurship and Innovation  
J.D., University of Pennsylvania, 2000  
Commercial Transactions; Insurance Law; Professional Responsibility

**Rakesh K. Anand**, Professor of Law  
J.D., Yale University, 1994  
Professional Responsibility; Legal Ethics Theory; Contemporary Legal Thought; Constitutional Law II; Criminal Law

**Hannah R. Arterian**, Dean and Professor of Law  
J.D., University of Iowa, 1973  
Employment Law

**Robert H.A. Ashford**, Professor of Law  
J.D., Harvard University, 1969  
Secured Transactions; Binary Economics; Corporations; Professional Responsibility

**Elizabeth A. August**, Legal Writing Professor  
J.D., Syracuse University College of Law, 1994  
Legal Communications and Research

**William C. Banks**, Board of Advisors  
Distinguished Professor; Professor of Law; Professor of Public Administration and International Affairs, Maxwell School of Citizenship and Public Affairs; Director, Institute for National Security and Counterterrorism (INSCT)  
J.D., University of Denver, 1974; M.S., University of Denver, 1982  
Central Challenges in National Security Law Seminar

**Joseph A. Barrette**, Professor Emeritus  
J.D., Catholic University, 1972

**Peter A. Bell**, Professor of Law  
J.D., Stanford University, 1970  
Torts, Public Health Law, International Trade Law

**Leslie Bender**, Professor Emerita  
J.D., University of Pittsburgh, 1979; LL.M., Harvard University, 1985  
Constitutional Law; Civil Rights, Race and Law; Bioethics and Law; Torts

**Todd A. Berger**, Associate Professor of Law; Director, Criminal Defense Law Clinic  
J.D., Temple University 2003; LL.M. Temple University 2007  
Criminal Defense Clinic; Criminal Procedure

**Peter D. Blanck**, University Professor; Chairman, Burton Blatt Institute  
J.D., Stanford University, 1986; Ph.D., Harvard University, 1982  
Disability Law

**Keith J. Bybee**, Paul E. and Hon. Joanne F. Alper '72 Judiciary Studies Professor; Professor of Law; Professor of Political Science; Director, Institute for the Study of the Judiciary, Politics, and the Media (JPM); Senior Research Associate, Campbell Public Affairs Institute  
A.B. Princeton University 1987; Ph.D., University of California at San Diego, 1995  
Constitutional Law I and II; Law, Politics, and the Media (JPM); Elements of the Law

**Sanjay Chhablani**, Bond, Schoeneck & King Distinguished Professor; Professor of Law; Professor, Forensic and National Security Sciences Institute, College of Arts and Sciences (by courtesy appointment)  
J.D., Yale Law School, 1996  
Constitutional Criminal Procedure; Criminal Law; Capital Punishment; Evidence; Forensic Evidence

**David M. Crane**, Professor of Practice  
M.A., Ohio University, 1973; J.D., Syracuse

## GRADUATE COURSE CATALOG

University, 1980

National Security Law; Laws of Armed Conflict; Atrocity Law and Policy-Practicing before International Courts; Military Law and Procedure; International Criminal/Civil Law and Procedure

**Tucker B. Culbertson**, Assistant Professor of Law

J.D., University of California-Berkeley, 2005; Ph.D., University of California-Berkeley, 2010  
Constitutional Law - Separation of Powers; Constitutional Law - Individual Rights; Foreign Relations Law; Animal Law; Family Law Workshop

**Christian C. Day**, Associate Dean for Academic Affairs; Professor of Law; Co-Director, Law in London Program;

J.D., New York University, 1970  
Corporations

**Lisa A. Dolak**, Senior Vice President and University Secretary; Angela S. Cooney Professor of Law;

J.D., Syracuse University College of Law, 1988

Civil Procedure; Federal Courts; Law, Politics and the Media, Patents and Trade Secrets

**David M. Driesen**, University Professor

J.D., Yale Law School, 1989

Climate Change: Science, Perception and Policy; Environmental Law

**Richard A. Ellison**, Professor Emeritus

LL.B., St. John's University, 1965

Constitutional Law; Contracts, Health Law, Family Law

**Thomas R. French**, Associate Dean, Law

Library; Professor of Law

M.L.S., State University of New York

at Geneseo, 1975; M.A., University of Cincinnati, 1978; J.D., Northern Kentucky University, 1987

Canadian Law; Foreign and International Research

**Martin L. Fried**, Professor Emeritus

J.D., Columbia University, 1958; LL.M. (Tax), New York University, 1968

Federal Income Taxation; Property; Wills and Trusts

**Ian Gallacher**, Professor of Law; Director, Legal Communication and Research

J.D., Washington College of Law, American University, 1991

Legal Communications and Research

**Gregory L. Germain**, Professor of Law

J.D., University of California, Hastings College of Law, 1985; LL.M. (Tax), University of Florida, 2001

Bankruptcy; Contracts; Business Associations; Pro Bono Bankruptcy Clinic

**Lauryn P. Gouldin**, Associate Professor of Law

J.D. New York University School of Law, 2000  
Constitutional Criminal Procedure (Investigative) Criminal Law; Evidence

**Andrew S. Greenberg**, Legal Writing Professor

J.D., Syracuse University College of Law, 1989

Legal Communication and Research I; Legal Communication and Research II; Legal Communication and Research III; Writing in Pretrial Litigation

**Margaret M. Harding**, Associate Dean for Faculty; Professor of Law

J.D., Georgetown University Law Center, 1986

Civil Procedure; Conflict of Laws; Securities Regulation; Alternative Dispute Resolution

**Tara Helfman**, Associate Professor of Law

J.D., Yale University, 2006

Contracts; Constitutional Law; International Law, Law of the Sea

**Peter E. Herzog**, Professor Emeritus

J.D., Syracuse University College of Law,

1955; LL.M., Columbia University, 1956

Comparative Law; European Communities; Conflict of Laws

**Jason D. Hoge**, Practitioner-in-Residence

J.D. City University of New York School of Law, 2004

Criminal Defense Clinic

**Paula C. Johnson**, Professor of Law

J.D., Temple University, 1985; LL.M.,

Georgetown University Law Center, 1990

Cold Case Justice Initiative - investigating and reopening civil rights era murders

**Hilary K. Josephs**, Professor Emerita

Ph.D., Harvard University, 1973; J.D.,

University of Hawaii, 1978

Chinese law; Contracts; International and Comparative Labor Law

**Arlene S. Kanter**, Laura J. and L. Douglas Meredith Professor for Teaching Excellence; Professor of Law; Director, College of Law

Disability Law and Policy Program; Co-Director, SU Center of Human Policy, Law, and Disability Studies

J.D., New York University, 1981; LL.M.,

Georgetown University Law Center, 1983

Disability Law; International Human Rights

and Comparative Disability Law; Special Education; Advanced Disability Law

**Gary T. Kelder**, Professor of Law

J.D., Boston University, 1971; LL.M., New York University, 1972

Constitutional Criminal Procedure; Criminal Law; Evidence; Advanced Criminal Evidence

**Deborah Kenn**, Associate Dean of Clinical and Experiential Education; Professor of Law;

Director, Office of Clinical Legal Education;

Director, Community Development Law Clinic

J.D., State University of New York at Buffalo, 1980

Community Development Law Clinic; Social and Economic Justice in South Africa

**Andrew Kim**, Associate Professor of Law

J.D., Harvard Law School, 2007

Torts; Immigration Law; Administrative Law

**Nina A. Kohn**, Associate Dean for Research;

David M. Levey L'48 Professor of Law

J.D., Harvard University, 2002

Elder Law; Family Law; Torts

**Laura G. Lape**, Associate Professor of Law

J.D., University of North Carolina, Chapel Hill, 1985

Copyright-Literary and Artistic works;

Entertainment Law; Intellectual Property;

Property Law

**Lynn S. Levey**, Legal Writing Professor

J.D., Syracuse University College of Law,

1994; M.A., Syracuse University, 1994

Legal Communication and Research;

Violence Against Women Act

**Travis H.D. Lewin**, Professor Emeritus

LL.B., University of South Dakota, 1958;

S.J.D., University of Michigan, 1967

Evidence; Trial Practice

**Kevin Noble Maillard**, Professor of Law

J.D., University of Pennsylvania Law School,

2002; M.A., Ph.D., University of Michigan,

2004

Family Law; Adoption; Popular Culture and

the Law; Wills and Trusts; Social Deviance

and the Law; Children and the Law

**Robin Paul Malloy**, E.I. White Chair and

Distinguished Professor of Law; Kauffman

Professor of Entrepreneurship and

Innovation; Director, Center on Property,

Citizenship and Social Entrepreneurism;

Professor of Economics, Maxwell School of

Citizenship and Public Affairs (by courtesy

appointment)

J.D., University of Florida, 1980; LL.M.,

## GRADUATE COURSE CATALOG

University of Illinois, 1983

Real Estate Transactions; Land Use Planning and Development Law

**Thomas J. Maroney**, Professor Emeritus  
LL.B., Syracuse University College of Law,  
1963

Constitutional Law; Constitutional Criminal Procedure; Federal Courts

**Janis L. McDonald**, Professor of Law  
J.D., Hofstra University School of Law, 1977;  
LL.M., Yale Law School, 1988

Cold Case Justice Initiative - investigating and reopening civil rights era murders

**Mary Helen McNeal**, Professor of Law;  
Director, Elder Law Clinic  
J.D., University of Maryland, 1986  
Elder Law Clinic; Professional Responsibility

**Suzette M. Meléndez**, Lecturer; Director,  
Children's Rights and Family Law Clinic;  
Director, Syracuse Medical-Legal Partnership  
J.D., University of Connecticut, 1989  
Children's Rights and Family Law Clinic

**Aliza M. Milner**, Legal Writing Professor  
J.D., George Washington University, 1998  
Legal Communication and Research I; Legal Communication and Research II; Legal Communication and Research III; Civil Procedure; Sentencing Law

**Robert G. Nassau**, Professor of Practice;  
Associate Director, Office of Clinical Legal Education; Director, Low Income Taxpayer Clinic  
J.D., Harvard University, 1986  
Federal Income Taxation I; Federal Income Taxation II; Estate and Gift Taxation; Low Income Taxpayer Clinic; Low Income Taxpayer Clinic II

**Kathleen M. O'Connor**, Legal Writing Professor;  
Faculty Director, Moot Court Honor Society and Advocacy  
J.D., Emory University, 1992  
Legal Communications and Research

**Ann E. Pfeiffer**, Practitioner-in-Residence  
J.D., State University of New York at Buffalo, 1979  
Externship Program

**Robert J. Rabin**, Professor Emeritus  
LL.B., Harvard Law School, 1964; LL.M., New York University, 1965  
Contracts; Labor Law

**Sarah H. Ramsey**, Professor Emerita  
J.D., University of North Carolina, 1973;  
LL.M., University of Michigan, 1982

Children and the Law; Family Law

**LaVonda Reed**, University Associate Provost for Faculty Affairs; Professor of Law  
J.D., University of Southern California, 1997  
Communications Law; Property; Wills and Trusts

**Richard S. Risman**, Legal Writing Professor  
J.D., State University of New York at Buffalo, 1984

Legal Communication and Research;  
Foundation Skills for Attorney Licensing

**Shannon P. Ryan**, Legal Writing Professor  
J.D., Loyola Law School, 1994  
Legal Communication and Research

**Nathan A. Sales**, Associate Professor of Law  
J.D. Duke School of Law, 2000  
National Security Law; Administrative Law; Criminal Law

**Michael A. Schwartz**, Associate Professor of Law; Director, Disability Rights Clinic  
J.D., New York University, 1981; LL.M., Columbia University, 1977; Ph.D., Syracuse University, 2006  
Disability Rights Clinic Seminar

**Richard D. Schwartz**, Professor Emeritus  
Ph.D., Yale University, 1952

**C. Cora True-Frost**, Associate Professor of Law  
J.D., Syracuse University College of Law, 2001; M.P.A., Maxwell School of Citizenship and Public Affairs, 2001; LL.M., Harvard Law School, 2006  
Criminal Law; Regulatory Law and Policy

**Terry L. Turnipseed**, Professor of Law; Director, Syracuse Law Semester in D.C. Program; Professor of Engineering and Computer Science L.C. Smith College of Engineering and Computer Science (by courtesy appointment).  
J.D., Georgetown University, 1996; LL.M., Georgetown University, 1998  
Estate Planning; Property Law; Wills and Trusts; Washington Lawyer Seminar; Syracuse Law in D.C. Program Externship Placement

**A. Joseph Warburton**, Associate Professor of Law and Finance  
Ph.D., University of Michigan, 2009; M.S., University of London, 2002; J.D., Michigan Law School, 1996; M.A., University of Pennsylvania, 1994  
Commercial Transactions; Corporate Financing Transactions; Financial Management

**Steven S. Wechsler**, Professor Emeritus

M.B.A., J.D., University of Michigan, 1975  
Lawyer as Negotiator; Professional Responsibility

**William M. Wiecek**, Professor Emeritus  
L.L.B., Harvard University, 1962; Ph.D., University of Wisconsin, 1968  
Constitutional Law, Federal Courts



# Martin J. Whitman School of Management

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 Certipoint/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.

## Graduate Program Overview

Graduate programs in management have been offered since 1948, and distinguished alumni employed in private, public, and nonprofit sector organizations attest to their quality. As one of our more than 400 full- and part-time graduate students, the student benefits from the sense of community that exists within the relatively close-knit graduate student body, while still being able to take advantage of the resources offered by a major university of 15,000 students.

The Whitman School offers full-time Master's programs in Accounting, Business Administration, MBA, Entrepreneurship & Emerging Enterprises, MS, and Finance along with distance learning programs in Professional Accounting, MS, Business Administration (iMBA), MBA and Supply Chain Management, MS.

## Full-Time MBA

Students in the Whitman MBA program at Syracuse University receive a well-rounded education that incorporates both the theoretical background and practical experience needed to succeed in today's ever-changing global economy. The experiential learning component encourages students to apply classroom learning to business problems, connect with decision makers, and deliver tangible results that add value to sponsoring organizations. Students build an experiential portfolio through internships, consulting, specialized courses, community engagement, and other practical experiences that

make them more valuable in the marketplace.

## iMBA (Distance Learning)

iMBA is a limited-residency distance learning MBA program for executives offered by the Whitman School of Management at Syracuse University. For more than 30 years the Whitman School has delivered an MBA through a uniquely flexible format combining in-person residency and distance learning. Residencies are held on the SU campus and in other sites in the U.S. and abroad. Learning between residencies is supported by the full-time faculty and a Web-based course management system.

The iMBA program features the same curricular content, faculty, and degree as the full-time MBA program at the Whitman School. iMBA students also enjoy the same opportunities to engage in extracurricular activities and connect with the Whitman community.

The degree awarded to iMBA program graduates is accredited by the AACSB International and is identical to the MBA degree awarded other Whitman School MBA graduates.

## MS Accounting

The MS in Accounting program at the Whitman School of Management produces graduates with the highest level of professionalism and the educational requirements needed to take the CPA exam in New York and many other states. This rigorous program attracts students with a background in accounting and those with education in other disciplines. If entering with a bachelor's degree in accounting, students complete 30-credits in one year while those without a degree in accounting are required to take up to an additional year of study depending on the student's previous business and accounting coursework.

Whitman MS in Accounting students take advanced courses in financial statement analysis, international accounting, advanced auditing, taxes and business strategy, economics, and statistics along with a variety of electives to complement their career goals. The recently redesigned curriculum prepares students for the expanding roles accounting professionals play in business strategy, consulting, information management, planning, and decision-making.

## Accounting@Syracuse (Distance Learning)

Accounting@Syracuse is the Whitman School of Management at Syracuse University's online Master of Professional Accounting program for working professionals. The Accounting@Syracuse program features the same curriculum content

## GRADUATE COURSE CATALOG

and faculty as the full-time MS in Accounting program at Whitman. Depending on your educational background, you will be placed into one of three sequences of study:

- Accounting Sequence (30 Credits) - For students who hold an undergraduate degree in accounting.
- Business Sequence (42 Credits) - For students who hold an undergraduate degree in business.
- Foundational Sequence (48 Credits) - For students who hold an undergraduate degree in any subject other than business or accounting.

Accounting@Syracuse delivers the Whitman School's curriculum through a combination of flexible online learning and personal connections.

- Weekly classes are hosted live online
- Course content is immersive and can be completed from anywhere
- Courses are designed and delivered by Whitman faculty
- Students have access to comprehensive support every step of the way

### MS Entrepreneurship

The 30-credit hour Whitman MS in Entrepreneurship program provides a rigorous immersion into the nature of entrepreneurship and the entrepreneurial process. Combining core content with a strong commitment to experiential learning, the program is targeted to students with a passion for entrepreneurship in for-profit, social, corporate and family business contexts.

The MS in Entrepreneurship program is designed for students interested in creating growth-oriented for-profit or non-profit ventures, working as a corporate entrepreneur or in a family business. Special emphasis is placed on students from professional disciplines.

### MS Finance

The MS in Finance program in the Whitman School of Management at Syracuse University is a rigorous, curriculum that prepares students to be leaders in the dynamic, fast-paced, and intellectually challenging world of finance. The program's core courses explore the nature of capital markets as they relate to organizational goals and provide an understanding of how broad principles of finance and quantitative methods can be applied to create investment strategies.

The MS in Finance program is flexible and allows students to customize their degree by taking elective courses in any of the following areas: statistics, accounting, economics, investments, risk management, real estate, and corporate finance. With a state-of-the-art trading room,

Whitman MS in Finance students have personal access to current market data, live news feeds, software for analysis, and other resources used by professionals in the field, including Bloomberg terminals and Factset data through Whitman's Ballentine Investment Institute.

### MS Supply Chain Management

The Whitman School is home to the first supply chain program in the country, established in 1919. With an emphasis on managing risk and uncertainty in today's global supply chains, this 30 credit-hour program consists of the Management Foundation, the Supply Chain Management core, one of several integrative Supply Chain Management "selective" courses, and a culminating experience. Students who have satisfactorily completed the equivalent of any of the required foundation courses in their undergraduate coursework may substitute courses chosen from the approved selective course list. Upon satisfactory completion of all coursework and the culminating experience, students are awarded a Master of Science in Supply Chain Management degree from the Whitman School of Management and Syracuse University.

### iMS Supply Chain (On-Line Distance Learning)

The Whitman iMS in Supply Chain Management is a distance learning program, with coursework (please see MS Supply Chain Management for details) being completed online and independently with three mandatory residencies each year on the Syracuse University campus.

## Graduate Admissions & Financial Aid

### Admission

Candidates with a bachelor's degree from an accredited college or university are eligible for admission. Full-time MBA, Entrepreneurship & Emerging Enterprises, MS, Finance, MS, Supply Chain Management, MS candidates may apply for fall term admission only. Accounting, MS candidates may apply for fall or spring admission. MBA@Syracuse and Accounting@Syracuse candidates may apply for January, April, July and October admission.

Although no specific undergraduate majors are required for admission, the transition to the rigors of a graduate management program is facilitated by a basic knowledge of economics, mathematics, and the social sciences.

Full-time work experience before applying for admission to our graduate programs is a decided

plus. It provides a frame of reference that enables students to relate the concepts and theories presented in class to the real world.

### Financial Aid

All full-time Whitman graduate candidates are considered for a Whitman merit-based scholarship. Need is not taken into account in the selection process. The awarding process takes into consideration all of the materials submitted in the candidate's admission application. A number of loan opportunities are available to all full-time students. Part-time students generally take advantage of their employers' educational benefits. However, loan opportunities are available, provided students enroll in at least 6 credits per semester.

### Additional Information

Detailed information about application deadlines, admissions requirements, programs, courses, facilities, costs, financial aid, student activities, and services can be found online at whitman.syr.edu. It also includes instructions for submitting an application for admission.

Students interested in graduate management programs at Syracuse should consult the web site for complete information.

## Graduate Career Services

The Whitman Career Center works in partnership with students to create a personalized career plan that integrates academic training with experiential learning and the acquisition of internship placements that sets students on the right path for achieving their career goals. On-boarding begins at the point of admissions with students tackling assignments that create awareness of their strengths, and the application of their experiences to their future goals. At orientation, students address assignments that continue to build a career plan that supports internship placement, selection of a concentration, and identification of experiential learning options. The goal of these efforts is to provide students a holistic viewpoint of their career assets, and the development of lifetime career management skills.

Armed with a career plan, students have access to the SU posting board called "OrangeLink" where employment opportunities are listed for student review and application. In addition, the Whitman Career Center maintains a partnership with MBAFocus, whose resume database is viewed by Fortune 500 corporations as the corporations seek to recruit graduate candidates. The Whitman School uses these systems as a means to promote our students as candidates to

## GRADUATE COURSE CATALOG

businesses throughout the world. Students are also encouraged to take advantage of national career fairs as a means to promote their careers, and to acquire internships and permanent employment.

From the beginning of your degree program through graduation, the Whitman Career Center works in partnership with you to assist you in achieving your career goals.

### Graduate Internships

Graduate internships provide opportunities for full-time M.B.A students to gain practical, professionally related experience. These opportunities integrate classroom instruction with activities in the business world.

Internships may be for a semester full time, a semester part time, or a summer full time. Companies are asked to provide challenging project-related internships, which may be either salaried or nonsalaried. The intern may combine academic credit with the experience by completing a three-credit independent research project under the direction of a faculty member.

### Study Abroad and Global Internships

As a pervasive theme in every Whitman School of Management program, managing in a global setting takes on special meaning for Syracuse students who may elect to spend a summer in one of the Syracuse study centers specializing in international business. Students take course credits, work in pre-arranged internships, or experience the cultural and business environments in London, U.K.; Shanghai, China; and Singapore. Syracuse students have studied at several additional sites including: Madrid, Spain; and Hong Kong. Other possibilities, including France and Japan, exist through our cooperative arrangement with the American Graduate School of International Management (Thunderbird) Consortium.

Syracuse students have interned overseas with financial firms such as Morgan Stanley and National Westminster Bank in London, multinationals such as Johnson & Johnson and General Electric in Singapore, and assist in operating small and medium-sized enterprises in China. Interested students should apply early and plan their programs of study to allow for a summer away from campus.

### 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)

### Master's

### Accounting, MS

### Contact

William J. Walsh, Director, Joseph I. Lubin School of Accounting, 336 Whitman School of Management, 315-443-3589, wjwalsh@syr.edu

### Program Description

The Master of Science in Accounting program is a 30 credit program for students with qualified undergraduate degrees in accounting. For students with other educational backgrounds, the program length varies from 30 to 63 credits, depending on the number of qualified accounting and management courses completed as an undergraduate or graduate student. M.S. Accounting students complete four required courses and choose a set of electives based on their professional interest and objectives.

### Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

The M.S. in Accounting degree meets the educational requirements for CPA licensure in New York state and most other 150 hour states.

### Admission

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.

### Financial Support

Merit-based financial support is awarded based on a student's admission application. These awards are highly competitive and are available to both U.S. and international full-time students. Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, ProgramFederal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

### Degree Requirements &

# GRADUATE COURSE CATALOG

## Learning Outcomes

This is a 30 - 63 credit degree leading to a Master of Science in Accounting.

The rigorous Whitman MS in Accounting program is designed for students of all academic backgrounds. Those entering with a bachelor's degree in business administration with at least 24 credits in accounting courses are eligible for the one-year, 30-credit program. Students without the appropriate coursework in accounting, economics, finance, and quantitative methods may be required to take undergraduate and/or graduate-level foundation courses as part of the program. Total of 30 credits taken in following areas:

- **ACC 677 - International Reporting and Analysis 3 credit(s)**
- **ACC 725 - Financial Statement Analysis 3 credit(s)**
- **ACC 747 - Advanced Auditing 3 credit(s)**
- **ACC 757 - Taxes & Business Strategy 3 credit(s)**
- Accounting Elective (3 credits)
- 6 credits of business electives chosen from select courses
- Three Electives (9 credits)

## Learning Goal 1:

Whitman MSA graduates will have an advanced understanding of the major functional areas of accounting.

- MSAs will be able to analyze financial statements and understand the impact of accounting and operating decisions on reported financial performance.
- MSAs will understand the impact of business decisions on product and other operating costs and their impact on business performance.
- MSAs will have an understanding of the economic nature of auditing and knowledge of the factors that impact auditor performance.
- MSAs will understand the impact of taxes on business decisions and their strategic implications.

## Learning Goal 2:

Whitman MSAs will be effective, persuasive communicators.

- MSAs will be able to utilize effective strategies for communicating with and listening to other individuals and groups.
- MSAs will be able to develop, organize and generate clear and effective professional briefings and reports.
- MSAs will be able to develop and support

arguments that are fact-based, conceptually coherent, and compellingly persuasive.

## Learning Goal 3:

Whitman MSA graduates will demonstrate skills in accounting research, critical thinking and problem solving, supported by appropriate analytical and quantitative techniques.

- MSAs will be able to research accounting, auditing and tax issues to develop appropriate recommendations and conclusions.
- MSAs will be able to gather, manipulate, and analyze data for purposes of understanding business problems and designing solutions for them.
- MSAs will be able to generate accounting solutions to business problems.

## Learning Goal 4:

Whitman MSAs will demonstrate the ability to think strategically about the relationship between business decisions and accounting policy implications.

- MSAs will be able to identify strategic issues and how they are impacted by accounting decisions.
- MSAs will be able to explain and apply concepts, models and tools of strategic analysis.
- MSAs will be able to identify and evaluate the short-term and long-term accounting implications of business decisions.
- MSAs will be able to appraise situations faced by a business organization from a broad perspective that considers economic, legal, ethical, and social factors.
- MSAs will be able to integrate knowledge and concepts from different functional areas of business to analyze accounting decisions.

## Transfer Credit

Students can transfer a maximum of 6 credits of elective coursework. 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.

## iMS In Accounting

## Contact

William J. Walsh, Director, Joseph I. Lubin School of Accounting, 616 Whitman School of Management, 315-443-3589, wiwalsh@syr.edu

## Program Description

The iMS program is a limited residency distance learning version of the M.S. degree in accounting program. Students complete one week residencies on the Syracuse campus three times a year in early January, May, and August. Between residencies, coursework continues over the internet. This unique program allows students to complete the M.S. degree and the 150 hour CPA requirement while working in accounting or related fields.

## Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

The M.S. in Accounting degree meets the educational requirements for CPA licensure in New York state and most other 150 hour states.

## Admission

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.

Participants in the 30-credit program must have a qualified undergraduate degree in accounting.

## Financial Support

Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

## Degree Requirements

This is a 30 credit program leading to a Master of Science in Accounting degree. The rigorous Whitman iMS in Accounting program is designed for students with undergraduate degrees in accounting.

Total of 30 credits taken in following areas:

- **ACC 725 - Financial Statement Analysis 3 credit(s)**

## GRADUATE COURSE CATALOG

- **ACC 736 - Strategic Cost Analysis 3 credit(s)**
- **ACC 747 - Advanced Auditing 3 credit(s)**
- **ACC 757 - Taxes & Business Strategy 3 credit(s)**

Accounting Elective (3 credits)

6 credits of business electives chosen from select courses

Three Electives (9 credits)

### Transfer Credits

Students can transfer a maximum of 6 credits of elective coursework. 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.

## Business Administration (iMBA), MBA

### Contact

Amy McHale, Assistant Dean for Masters Program, Whitman School of Management Suite 315-443-9912, ammchale@syr.edu

### Program Description

The MBA@Syracuse is the Whitman School's uniquely flexible executive M.B.A. program for executives. Syracuse University has offered an M.B.A. program via distance learning since 1977. As with the full-time M.B.A. program, the MBA@Syracuse is accredited by AACSB—the Association to Advance Collegiate Schools of Business. MBA@Syracuse features the same curriculum content as the full-time, on-campus MBA program, and graduates earn the same Syracuse University MBA diploma as on-campus students. The curriculum features a strong foundation in core business principles, and students may choose a specialization to focus their studies on an area relevant to their careers and personal interests. Students can take two courses (6 credits) each semester to complete the program in as little as two years. Students must complete 12 core courses and 5 electives, and attend three residencies (1 credit each) during the course of their program. Each semester is 12 weeks.

## Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

## Admission

Applicants must have at least 1 year of work experience (post undergraduate degree) for this program. Applicants will be considered for the program based on their previous academic experience, work experience, professional references, and personal statements. The GMAT is not required for this program for students with at least 5 years (post undergraduate degree) work experience.

## Financial Support

Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

## Degree Requirements

This is a 54 credit program leading to a Master in Business Administration degree.

All 3 credits each

- **ISM 615 - Microeconomics 3 credit(s)**
- **MBC 631 - Financial Accounting 3 credit(s)**
- **MBC 632 - Managerial Accounting 3 credit(s)**
- **MBC 633 - Managerial Finance 3 credit(s)**
- **MBC 635 - Operations and Supply Chain Management 3 credit(s)**
- **MBC 636 - Marketing Management 3 credit(s)**
- **MBC 638 - Data Analysis and Decision Making 3 credit(s)**
- **MBC 639 - Leadership in Organizations 3 credit(s)**
- **MBC 645 - Strategic Management 3 credit(s)**
- **MBC 647 - Global Entrepreneurial Management 3 credit(s)**
- LPP Requirement
- MIS Requirement
- 15 credits of electives

- 3 credits of residencies

## Transfer Credit

Students can transfer a maximum of 6 credits of elective coursework. 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. Students who have recently completed another graduate program at Syracuse University may apply up to 9 credits of elective coursework towards the degree.

## Satisfactory Progress

Students are required to maintain a GPA of 3.0 or higher to meet degree requirements.

## Business Administration, MBA

### Contact

Don Harter, Associate Dean for Master's Programs; 315 Whitman School of Management, 315-443-3502, dharter@syr.edu

### Program Description

Students in the Whitman MBA program at Syracuse University receive a well-rounded education that incorporates both the theoretical background and practical experience needed to succeed in today's ever-changing global economy. The experiential learning component encourages students to apply classroom learning to business problems, connect with decision makers, and deliver tangible results that add value to sponsoring organizations. Students build an experiential portfolio through internships, consulting, specialized courses, community engagement, and other practical experiences that make them more valuable in the marketplace.

## Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

## Admission

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.

## GRADUATE COURSE CATALOG

### Financial Support

Merit-based financial support is awarded based on a student's admission application. These awards are highly competitive and are available to both U.S. and international full-time students. Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

### Degree Requirements & Learning Objectives

This is a 54 credit program that leads to a Master in Business Administration (MBA) degree.

The M.B.A. curriculum is designed as a 54-credit program and normally requires two years or four academic semesters to complete on a full-time basis. It consists of two elements: 36 credits of required core courses and 18 credits of electives. Students are required to complete at least 6 credits of experiential credit. A minimum of 9 credits of electives selected in one area may form a concentration. M.B.A. students may choose a concentration in accounting, entrepreneurship, finance, marketing or supply chain management. Students may select electives from other graduate programs in the University.

### Core Courses and Credits

- **MBC 600 - Selected Topics 1-6 credit(s)**  
Managerial Skills
- **MBC 601 - Economic Foundations of Business 1.5 credit(s)**
- **MBC 602 - Economics for International Business 1.5 credit(s)**
- **MBC 603 - Creating Customer Value 1.5 credit(s)**
- **MBC 604 - Managing the Marketing Mix 1.5 credit(s)**
- **MBC 606 - Information Technology for Decision Support 1.5 credit(s)**
- **MBC 607 - Understanding Financial Statements 1.5 credit(s)**
- **MBC 608 - Creating Financial Statements 1.5 credit(s)**
- **MBC 609 - Accounting for Managerial Decisions 1.5 credit(s)**
- **MBC 610 - Opportunity Recognition and Ideation 1.5 credit(s)**
- **MBC 616 - Operations Management 1.5 credit(s)**

- **MBC 617 - Supply Chain Management 1.5 credit(s)**
- **MBC 618 - Competitive Strategy 1.5 credit(s)**
- **MBC 619 - Corporate Strategy 1.5 credit(s)**
- **MBC 627 - Financial Markets and Institutions 1.5 credit(s)**
- **MBC 628 - Fundamentals of Financial Management 1.5 credit(s)**
- **MBC 629 - Legal and Ethical Aspects of Management 1.5 credit(s)**
- **MBC 630 - Behavior in Organizations 1.5 credit(s)**
- **MBC 638 - Data Analysis and Decision Making 3 credit(s)**
- **MBC 647 - Global Entrepreneurial Management 3 credit(s)**
- **SCM 656 - Project Management 3 credit(s)** or
- Selective requirement (3)

### Free Electives 18

Students are required to complete 6 approved experiential elective credits through at least two distinct experiences. These experiences include internships, consulting, specialized courses, community engagement and other practical experiences.

### Accounting

The accounting department offers courses in the areas of accounting and management information systems. Accounting

### Chair -

Joe Comprix, Associate Professor, 611 Whitman School of Management, 315-443-3674, jjcompri@syr.edu

All organizations rely on accounting information to make decisions. Accounting courses emphasize the analysis of accounting information for strategic operating, financial, and tax decisions. In addition to foundation accounting courses, offerings include financial statement analysis, strategic cost analysis, and taxes and business strategy.

Career opportunities for individuals with accounting skills include professional accounting positions in audit, tax, information systems, and consulting, as well as corporate positions as controllers or financial analysts. The M.B.A. program is not designed for those who seek

CPA licensure. M.B.A. students who seek CPA certification must carefully choose their electives, and normally will need to take additional courses to meet the educational requirements to be eligible to sit for the Uniform CPA examination.

### Management Information Systems

### Contact -

Michel Benaroch, Professor; 535 Whitman School of Management, 315-443-3492, mbenaroc@syr.edu

Today's business environment requires M.B.A. graduates to have a thorough understanding of how traditional and e-business enterprises effectively deploy and use information technologies to enable business transformation and innovative competitive strategies, facilitate integration across business functions and supply chain networks, and enhance managerial decision making for business performance. The focus of the MIS curriculum is on helping students understand how organizations can develop and manage technological capabilities necessary for meeting current and future business needs. Our courses provide coverage of technologies, frameworks, methodologies, and tools related to advanced decision support and data mining, database management, project management, customer relationship management, and web-based system development, among others.

Courses in MIS provide M.B.A. students and students majoring in engineering management with the concepts, theories, and best practices needed for deploying and managing technology in rapidly changing business environments. Career opportunities for graduates include such positions as management consultant, technology manager, systems analyst, end-user computing specialist, business intelligence specialist, and other career-oriented managerial positions.

### Entrepreneurship & Emerging Enterprises

### Chair -

Alex McKelvie, Associate Professor; 508 Whitman School of Management, 315-443-7252, mckelvie@syr.edu

The EEE Program offers a unique M.B.A. concentration that combines themes that are critical for sustainable competitive advantage in any modern industry: entrepreneurial management, innovation, and global leadership. The entrepreneurial process is applied in a variety of organizational contexts. The courses in the concentration are designed to reflect a logical flow. Students first take a core course that

## GRADUATE COURSE CATALOG

establishes a strong entrepreneurial foundation, including what entrepreneurial management is, how to think about entrepreneurship, and the implications of entrepreneurial thinking and acting for a student's approach to venture opportunities. This is followed by two elective EEE courses. The concentration ends with a capstone experience completed during the final semester, where students integrate all of their M.B.A. learning and apply it to the actual creation and implementation of an entrepreneurial concept.

The entrepreneurship concentration is intended as a comprehensive student experience. Accordingly, the program incorporates a number of pedagogical innovations and extracurricular initiatives. In addition to lectures, elective courses will expose students to presentations from entrepreneurs, participation in a novel creativity program, field consulting with existing small businesses, work in local business incubators, hands-on case studies, work with small businesses in completing an entrepreneurial audit, consulting to entrepreneurial family businesses, and the conceptualization and implementation of a new business idea together with a complete business plan and a pitch to a source of venture financing. Students are invited to enter business plans in the Panasci Business Plan Competition, an annual campus-wide competition with more than \$50,000 in awards for winners, and other on-campus entrepreneurship competitions. Student initiated ventures can also operate in the Couri Entrepreneurial Hatchery. Each student in the program can be assigned to a successful entrepreneur, who will serve as a mentor. The D'Aniello Entrepreneurial Internship provides students with hands-on experience in an entrepreneurial venture.

### Finance

The finance department offers courses in the areas of finance and real estate.

### Finance

## Chair -

Ravi Shukla, 629 Whitman School of Management, 315-443-3576, rkshukla@syr.edu

The study and understanding of finance is an integral component of decision-making in all areas of business. Finance is a global, dynamic and exciting discipline. It offers a unique blend of theory and practical applications. Students studying finance should have excellent knowledge of economics and accounting, be able to use quantitative tools, and be willing to function in a world full of challenges and uncertainty. Thus they become members of a profession that can be both intellectually and professionally rewarding. Offerings include courses in financial

management, investments, securities markets, international financial management, distress investing, portfolio management, real estate finance, fixed income securities, financial modeling, financial planning, and financial institutions.

The department is also responsible for the offering of statistics courses in the Whitman School. In today's information age, knowledge of managerial statistics is useful in virtually every functional area of management. The concepts and tools of statistics are used to extract useful information from data to facilitate effective managerial decisions. For example, statistical techniques are used to design marketing studies, sample production units and customers, forecast business and economic conditions, formulate decision models that incorporate risk considerations, model the volatilities in stock returns, and monitor and control performance in a wide variety of managerial processes. The modern manager must be familiar with the assumptions underlying various statistical techniques and should be able to judge their appropriateness in a variety of situations. In addition, he or she should be able to perform selected analyses to voluminous data sets using available computer programs and interpret results in a valid and meaningful way. Courses in managerial statistics prepare students to be both producers and consumers of statistical analyses.

### Real Estate

## Contact -

Yildiray Yildirim, Professor, 120D Whitman School of Management, 315-443-4885, yildiray@syr.edu

The real estate track focuses on the development of a skill set and knowledge base to excel in the increasingly competitive landscape of the real estate industry. Curriculum and practical experiences are designed to help you learn to analyze and understand local tax laws, zoning regulations, school districts, contracts, utilities, transportation and much more. An understanding of real estate fundamentals and the capacity to put that knowledge to work in a changing commercial environment is an emphasis of the program. We prepare you to critically examine real estate financial information from diverse and conflicting sources.

### Management

## Chair -

Kris Byron, Associate Professor, 541 Whitman School of Management, 315-443-4821 kbyron@syr.edu

To be successful, organizations must be able

to compete in complex and global business environments, and managers must be able to lead within diverse and dynamic workplaces. The Management Department at Whitman offers courses on how organizations, employees, and managers can succeed in meeting today's business challenges. The Management Department is composed of two areas: management and business law. The faculty members of the Management Department teach courses and conduct research in the areas of strategy, organizational theory, business law, organizational behavior, ethics, leadership, and human resources. The rapidly changing business environment and the growing complexity of organizations, coupled with increased competitive pressures across industries and countries, has made courses from this department important for many careers. The faculty of the Management Department strive to provide the highest-quality classroom experience and have won several teaching awards.

### Marketing

## Chair -

Kyu Lee, Professor, 636 Whitman School of Management, 315-443-3429, elee06@syr.edu

The Marketing Department houses two MBA concentrations: Marketing Management and Supply Chain Management. All students of the department are expected to appreciate the interrelatedness of the perspectives of consumers, intermediaries (e.g. retailers, distributors), and suppliers (e.g. 3PLs, OEMs, other product or service providers).

The marketing curriculum is flexible and can accommodate interdisciplinary interests. Students can pick and choose from a wide menu of elective courses to build expertise in traditional areas of marketing (product management, marketing communication, and marketing research) and in channel and supply chain management.

### Marketing Management Concentration

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 markets 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

## GRADUATE COURSE CATALOG

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, sales management, and managing a family business.

### Supply Chain Management Concentration

All purposeful organizations transform various inputs to some form of output. This may involve the actual manufacturing process of a product or the delivery of a service. In supply chain management, students apply decision-making methods to the design, planning, and control of such transformation systems.

To design and plan the supply chain system, managers must understand aggregate forecasting, location analysis, physical layout, and maintenance policies. Running supply chain systems involves short-run forecasting, capacity planning, scheduling and control, inventory control, and quality and cost control. It is also critical that students understand the design of information systems, which relate all these areas to the activities of other units in the organization.

Since the problems studied in supply chain management are common to all organizations, career opportunities exist in varied public and private organizations including distribution, banking, transportation, health care, government, consulting, and in the more traditional retailing and manufacturing areas.

### Learning Goal 1:

Our graduates will understand how to effectively manage organizational resources.

Our students will be able to summarize key traits of different organizational resources, including financial capital, human capital, intellectual capital, technology resources, relational resources, and processes.

Our students will be able to measure, organize and allocate resources in order to effectively meet organizational objectives.

Our students will be able to evaluate, prioritize and plan the acquisition of resources that are aligned with organizational objectives

### Learning Goal 2:

Our graduates will be effective, persuasive communicators.

Our students will be able to utilize effective strategies for communicating with and listening to other individuals and small groups.

Our students will be able to develop, organize and generate clear and effective professional

briefings and reports.

Our students will be able to develop and support arguments that are both conceptually coherent and compellingly persuasive.

### Learning Goal 3:

Our graduates will demonstrate skills in inquiry, critical thinking and problem solving, supported by appropriate analytical and quantitative techniques.

Our students will be able to gather, manipulate, analyze and generate data for purposes of understanding business problems and design solutions for them.

Our students will be able to apply industry standard tools and technologies to facilitate the problem solving process.

Our students will be able to generate original and innovative solutions to new and existing business problems as well as justify the solutions.

### Learning Goal 4:

Our graduates will demonstrate the ability to think strategically about business issues.

Students will be able to identify and differentiate strategic issues from tactical ones.

Students will be able to explain and apply concepts, models and tools of strategic analysis.

Students will be able to identify and evaluate the short and long term implications of business decisions for an organization's stakeholders.

Students will be able to appraise situations faced by a business organization from a broad perspective that considers economic and social factors.

Students will be able to integrate knowledge and concepts from different functional areas of business in the course of analyzing and resolving strategic-level decision problems.

### Learning Goal 5:

Our students will learn to function with an entrepreneurial spirit.

Our students will be able to discover and evaluate business opportunities.

Our students will be able to apply entrepreneurial thinking when acting within different facets and functional areas of business.

Our students will be able to apply creativity and innovation processes to solve business problems.

Our students will be able to recognize and assess risks surrounding innovative actions as well

as generate approaches for mitigating and managing risks.

Our students will be able to develop an original business idea and prepare a comprehensive business plan for its implementation.

### Learning Goal 6:

Whitman MBA's will demonstrate the ability to manage in a global environment.

Whitman MBA's will demonstrate awareness and understanding of world geography, languages and cultures.

Whitman MBA's will be able to identify and explain cultural similarities and differences in societies across the globe.

Whitman MBA's will be able to integrate opportunities and threats across the globe into their analysis of business situations.

### Transfer Credit -

Students can transfer a maximum of 6 credits of elective coursework. 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.

## Entrepreneurship & Emerging Enterprises, MS

### Contact

Alexander McKelvie, Associate Professor, 508 Whitman School of Management, 315-443-7252, mckelvie@syr.edu

## Program Description

The Master's in Entrepreneurship program provides a rigorous immersion into the nature of entrepreneurship and the entrepreneurial process. Core content is coupled with a strong commitment to experiential learning. It is targeted to students with a passion for entrepreneurship in for-profit, non-profit, and public sector contexts. It is a 30-credit program and can be completed in one year. Admission requirements include a bachelor's degree, GMAT or GRE scores, and a written proposal for a venture. Entrepreneurial or other work experience is preferred.



## GRADUATE COURSE CATALOG

### Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

### Admission

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 standardized testing score, previous academic experience, work experience, professional references, and personal statements.

### Financial Support

Merit-based financial support is awarded based on a student's admission application. These awards are highly competitive and are available to both U.S. and international full-time students. Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs. International students need to be enrolled for at least nine credits for student visa purposes.

### Degree Requirements & Learning Outcomes

This is a 30 credit program which leads to a Master of Science in Entrepreneurship degree.

### Required Business Foundation (15 Credit Hours)

Number Course Title - All 1.5 Credits each except where noted

**EEE 620 - Foundations of Entrepreneurship 3 credit(s)**

**MBC 603 - Creating Customer Value 1.5 credit(s)**

**MBC 607 - Understanding Financial Statements 1.5 credit(s)**

**MBC 609 - Accounting for Managerial Decisions 1.5 credit(s)**

**MBC 610 - Opportunity Recognition and Ideation 1.5 credit(s)**

**MBC 618 - Competitive Strategy 1.5 credit(s)**

**MBC 627 - Financial Markets and Institutions 1.5 credit(s)**

**MBC 628 - Fundamentals of Financial Management 1.5 credit(s)**

**MBC 630 - Behavior in Organizations 1.5 credit(s)**

### Entrepreneurial Core - 4 Additional Courses (12 Credit Hours)

Number Course Title - All 3 Credits each

**EEE 621 - Corporate Entrepreneurship 3 credit(s)**

**EEE 625 - Venture Capital 3 credit(s)**

**EEE 630 - Entrepreneurship in Engineering and Science 3 credit(s)**

**EEE 640 - Social Entrepreneurship 3 credit(s)**

**EEE 643 - Emerging Enterprise Consulting 3 credit(s)**

**EEE 644 - Dilemmas and Debates in Entrepreneurship 3 credit(s)**

**EEE 682 - Entrepreneurial Marketing 3 credit(s)**

**MAR 752 - Introduction to Innovation Management 3 credit(s)**

MAR 752 - Introduction to Innovation Management 3 credit(s)

**MAR 757 - Managing Innovative Products and New Ventures 3 credit(s)**

**MAR 761 - Marketing Strategies for Innovations 3 credit(s)**

**LAW 814 - Technology Transactions Law 3 credit(s) \* or**

**LAW 815 - Technology Commercialization Research Center 3 credit(s) \***

### Required Entrepreneurship Field Experience

Number Course Title

**EEE 670 - Experience Credit 1-6 credit(s)**

### Learning Goal 1:

Whitman MSEs will understand how to effectively manage organizational resources.

MSEs will be able to summarize key traits of different organizational resources, including financial capital, human capital, intellectual capital, technology resources, relational resources, and processes.

MSEs will be able to measure, organize and allocate resources in order to meet organizational objectives in an effective, ethical, and sustainable manner.

MSEs will be able to evaluate, prioritize and plan

the acquisition of resources that are aligned with organizational objectives.

MSEs will be able to demonstrate an understanding of group and individual dynamics in organizations.

### Learning Goal 2:

Whitman MSEs will demonstrate skills in inquiry, critical thinking, problem solving, and strategic analysis.

MSEs will be able to gather, manipulate, and analyze data for purposes of understanding business problems and designing solutions for them.

MSEs will be able to generate original and innovative solutions to new and existing business problems.

MSEs will be able to explain and apply concepts, models and tools of strategic analysis.

### Learning Goal 3:

Whitman MSEs will be able to explain the unique nature of entrepreneurship.

MSEs will be able to discover and evaluate business opportunities.

MSEs will be able to apply entrepreneurial thinking when acting within different facets and functional areas of business.

MSEs will be able to apply creativity and innovation processes to solve business problems.

MSEs will be able to recognize and assess risks associated with innovative actions as well as generate approaches for mitigating and managing risks.

### Learning Goal 4:

Whitman MSEs will be able to explain the entrepreneurial process.

MSEs will be able to apply principles of entrepreneurial marketing.

MSEs will be able to construct bootstrap financing options.

MSEs will be able to articulate processes for acquiring venture capital.

MSEs will be able to develop a comprehensive business plan.

### Satisfactory Progress

Students are required to maintain a GPA of 3.0 or higher to meet degree requirements.

## GRADUATE COURSE CATALOG

### Finance, MS

#### Contact

Ton Barkley, Professor of Practice, 334 Whitman School of Management, 315-443-8107, tbarkley@syr.edu

#### Program Description

The MS in Finance challenges students to develop a thorough understanding of the global framework of finance and proceed to concentrate their efforts in selected areas of the discipline, such as corporate finance or investments. The preparation afforded to students desiring in-depth knowledge of finance must be commensurate with the increased complexity of the financial environment, as exemplified by greater opportunities and risks, larger array of products and financial management strategies, and greater degree of competition in the market for properly trained graduates. The Whitman School provides this knowledge through excellent and diverse year-round programs offered by an outstanding faculty.

The MS in Finance places emphasis on attracting highly qualified students from around the globe and building a challenging program with an excellent reputation. Upon completion of the program, graduates will have an understanding of the field of finance and the ability to use the appropriate theory and methodology to excel in today's global financial environment.

The Whitman MS in Finance can be completed with 30 credits (as little as one year) by students with academic backgrounds in finance, economics, accounting, and business. Students without academic backgrounds in these areas should expect to take up to an additional nine hours of foundation courses as part of the program. The MS in Finance program advisor reviews each student's academic background and designs a program personally suited for the student.

#### Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

#### Admission

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.

Students entering the program should have

appropriate background in accounting, economics, finance, and quantitative methods. If necessary, students will register for one or more of the available refresher courses.

#### Financial Support

Merit-based financial support is awarded based on a student's admission application. These awards are highly competitive and are available to both U.S. and international full-time students. Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

#### Degree Requirements & Learning Objectives

The core of the program consists of 30 credit hours, of which 18 to 21 must be in finance. Students must take Corporate Financial Policy and Strategy, Investment Analysis, Financial Management, and three to four additional courses in finance. They are also required to take a course in either Regression Analysis or Time Series Analysis. The remaining courses may be taken in related areas (such as statistics, accounting, economics, and international business). Available electives include International Financial Management, Emerging Markets, Fixed Income Securities, Derivatives, Distress Investing, Value Investing, and Securities Markets.

#### International Programs

In addition to the course work offered in Syracuse, students have the opportunity to participate in various international programs. The London Summer Program offers internships with prestigious international firms. The Shanghai Summer Program provides a unique view into the world of the important Asian markets.

#### Total Credits Required 30

#### Finance Courses 18-21 credits

#### Required (9 credits)

**FIN 751 - Corporate Financial Policy & Strategy 3 credit(s)**

**FIN 756 - Investment Analysis 3 credit(s)**

**FIN 855 - Financial Management 3 credit(s)**

#### Additional Finance (9-12 credits)

**FIN 600 - Selected Topics 1-6 credit(s)**  
Corporate Restructuring, Advanced Derivatives

**FIN 657 - International Financial Management 3 credit(s)**

**FIN 659 - Introduction to Derivatives 3 credit(s)**

**FIN 660 - Fixed Income Securities 3 credit(s)**

**FIN 666 - Value Investing 3 credit(s)**

**FIN 673 - Control Investing 3 credit(s)**

**FIN 761 - Financial Modeling 3 credit(s)**

#### Courses from Related Fields 9-12 credits

Regression and Time Series Analysis

Accounting

Economics

International Business

Real Estate

#### Learning Goal 1:

Our graduates will understand finance in the context of global environment, businesses and securities.

MSFs will be able to critically analyze the global financial and regulatory environments and implications of changes therein.

MSFs will be able to assess the structure, conduct and performance of the financial sector, and the importance of key decisions made by investors and financial managers.

MSFs will be able to employ appropriate methods in the valuation and use of securities such as stocks, bonds and derivatives.

#### Learning Goal 2:

Our graduates will achieve an in-depth knowledge in the major areas of finance: (i) corporate finance, (ii) investments and financial markets, and (iii) risk management and quantitative finance.

MSFs will be able to analyze corporate financial policies and strategies, and understand the processes involved in valuation methods for project investments, initial public offerings, mergers and acquisitions, and divestitures.

MSFs will be able to evaluate stand-alone investments as well as their treatment in the context of a well-diversified portfolio.

MSFs will understand how global financial markets operate in terms of their dynamics and regulatory environment.

MSFs will be able to appropriately employ methods and techniques in measuring, mitigating and managing risk.

## GRADUATE COURSE CATALOG

### Learning Goal 3:

Our graduates will be able to think critically in evaluating strategies and employing relevant tools.

MSFs will be able to use up-to-date methods in the asset valuation, asset management, and corporate financial planning processes.

### Learning Goal 4:

Our graduates will be proficient in quantitative analysis.

MSFs will be able to understand the framework and applications of financial models.

MSFs will be able to use software for financial modeling and applied statistics.

### Transfer Credit

Students can transfer a maximum of 6 credits of elective coursework. 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.

## New Media Management, MS

### Contact:

Stephen Masiclat, Director  
255A Newhouse 3, 315-443-9243.

### Newhouse faculty:

See faculty listings for the S.I. Newhouse School of Public Communications.

### Management faculty:

See faculty listings under M.B.A. program in the Martin J. Whitman School of Management.

### Program Requirements

This program focuses on the management, finance, and marketing functions of the communications industry. The Master of Science degree in new media management is granted jointly by the S. I. Newhouse School of Public Communications and the Martin J. Whitman School of Management. The required number of graduate credits varies from 36 to 42, depending upon the student's prior academic background.

This 36-credit program leads to a Master of Science (M.S.) in New Media Management.

### Requirements of the Newhouse School of Public Communications

#### Required Courses

**COM 698 - Media Law 3 credit(s)** or

**TRF 637 - Telecommunications Law&Policy 3 credit(s)**

**ICC 606 - Applied Research in Content Management 3 credit(s)**

**ICC 617 - Issues in Media Management 3 credit(s)**

**ICC 625 - New Media Business 3 credit(s)**

**ICC 683 - Case Studies in Media Management 3 credit(s)** or

**TRF 683 - Communications Industry Frontiers 3 credit(s)**

#### Capstone

**ICC 689 - New Media Management Capstone 6 credit(s)**

### Requirements of the Martin J. Whitman School of Management

#### Required Courses

**EEE 643 - Emerging Enterprise Consulting 3 credit(s)** or

**MAR 745 - Strategic Brand Management 3 credit(s)**

**MBC 603 - Creating Customer Value 1.5 credit(s)**

**MBC 604 - Managing the Marketing Mix 1.5 credit(s)**

**MBC 607 - Understanding Financial Statements 1.5 credit(s)**

**MBC 609 - Accounting for Managerial Decisions 1.5 credit(s)**

**MBC 618 - Competitive Strategy 1.5 credit(s)**

**MBC 619 - Corporate Strategy 1.5 credit(s)**

**MBC 639 - Leadership in Organizations 3 credit(s)**

#### Additional Information

Students without prior background in communications must complete an additional

6 credits in Newhouse course-work chosen in conjunction with the program director.

Total: 36-42 credits

## Professional Accounting, MS

### Contact

William J. Walsh, Director, Joseph I. Lubin School of Accounting, 616 Whitman School of Management, 315-443-3589, wjwalsh@syr.edu

### Program Description

Accounting@Syracuse is a distance learning version of the M.S. degree in accounting program. This unique program allows students to complete the M.S. degree and the 150 hour CPA requirement while working in accounting or related fields.

### Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

The M.S. in Accounting degree meets the educational requirements for CPA licensure in New York state and most other 150 hour states.

### Admission

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.

Participants in the 30-credit program must have a qualified undergraduate degree in accounting.

### Financial Support

Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, ProgramFederal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

### Degree Requirements

This is a 30 credit program leading to a Master of Science in Accounting degree. The rigorous Whitman Accounting@Syracuse program is designed for students with undergraduate degrees in accounting.

## GRADUATE COURSE CATALOG

Total of 30 credits taken in following areas:

**ACC 677 - International Reporting and Analysis 3 credit(s)**

**ACC 725 - Financial Statement Analysis 3 credit(s)**

**ACC 747 - Advanced Auditing 3 credit(s)**

**ACC 757 - Taxes & Business Strategy 3 credit(s)**

Accounting Elective (3 credits)

6 credits of business electives chosen from select courses

Three Electives (9 credits)

Transfer Credits

Students can transfer a maximum of 6 credits of elective coursework. 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.

**Supply Chain Management, MS**

**Contact**

Prof. Fred F. Easton, MS-SCM Program Director,  
517 Whitman School of Management, ffeaston@  
syr.edu

Department Office Contact: 315-443-1383

**Program Description**

Supply chain management is an interdisciplinary field that emphasizes cross-functional links and seeks to manage those links to enhance a company's competitive advantage. It involves forecasting, resource allocation, production planning, flow and process management, inventory management, customer delivery, after-sales support and service, as well as a host of other activities and processes familiar and basic to business. Competitive pressures are intense. Sophisticated techniques have been devised to expedite information flow, including on-board computers for trucks and ships, satellite tracking systems, and the electronic transmission of order and shipping information.

An understanding of supply chain management is an asset to any manager, and there is a strong demand for specialists in the area. Managers attracted to SCM enjoy the variety and challenges in the field, its sophisticated technology, and its importance to the overall economy and the global marketplace. Entrants to the field look forward to an entrepreneurial environment and opportunities to deal with a wide array of people from a variety of organizations. SCM managers also like a hands-on approach. They use sophisticated decision tools, yet they can always envision the underlying physical processes—processes that are familiar enough to be taken for granted, yet subject to managerial initiative and rapid change.

Syracuse University offered the first supply chain program in the country in 1919. Today, supply chain management programs are offered at the undergraduate, masters, and doctoral level, including an MS in SCM offered through a distance learning format. Coursework is completed online and independently with three residencies per year on the Syracuse University campus. Distance learning courses have been offered through the iMBA program since 1977.

**Accreditation**

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

**Admission**

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.

**Financial Support**

Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

**Degree Requirements & Learning Objectives**

This is a 30 credit degree program leading to a Master of Science in Supply Chain Management.

With an emphasis on managing risk in today's global supply chains, this 30 credit-hour program consists of the Management Foundation, the Supply Chain Management core, one of several integrative Supply Chain Management "selective" courses, and a culminating experience. Upon

satisfactory completion of all coursework and the culminating experience, students are awarded a Master of Science in Supply Chain Management degree from the Whitman School of Management and Syracuse University.

Management Foundation\* (9 credit hours)

**MBC 631 - Financial Accounting 3 credit(s)** (or equivalent; MBC 607 & MBC 608)

**MBC 633 - Managerial Finance 3 credit(s)** (or equivalent; MBC 627 & MBC 628)

**MBC 636 - Marketing Management 3 credit(s)** (or equivalent; MBC 603 & MBC 604)

Supply Chain Core (15 credit hours, required)

**MBC 635 - Operations and Supply Chain Management 3 credit(s)** (or equivalent; MBC 616 & MBC 617)

**MBC 638 - Data Analysis and Decision Making 3 credit(s)**

**SCM 701 - Supply Chain and Logistics Management 3 credit(s)**

**SCM 702 - Principles of Management Science 3 credit(s)**

**SCM 741 - Strategic Sourcing 3 credit(s)**

Selectives\* -- choose 1 course (3 credit hours) from

**SCM 655 - Customer Relationship Management with Systems Applications and Products 3 credit(s)**

**SCM 656 - Project Management 3 credit(s)**

**SCM 721 - Supply Chain Systems 3 credit(s)**

**SCM 777 - Global Supply Chain Strategy 3 credit(s)**

Relevant course(s) approved by the SCM faculty

Culminating Experience

Choose 1 course (3 credit hours) from

**SCM 755 - Lean Six Sigma 3 credit(s)**

**SCM 690 - Independent Study 1-6 credit(s)** (Applied Project)

# GRADUATE COURSE CATALOG

## Note:

\* Students who have satisfactorily completed any of the management foundation courses before entering the program may substitute course(s) from the list of approved selective courses.

## Learning Goal 1:

Our graduates will understand how to effectively manage organizational resources.

Our graduates will be able to summarize key traits of different organizational resources, including financial capital, human capital, intellectual capital, technology resources, relational resources, and processes.

Our graduates will be able to measure, organize and allocate resources in order to meet organizational objectives in an effective, ethical, and sustainable manner.

Our graduates will be able to evaluate, prioritize and plan the acquisition of resources that are aligned with organizational objectives.

## Learning Goal 2:

Our graduates will demonstrate skills in inquiry, critical thinking and problem solving, supported by appropriate analytical and quantitative techniques.

Our graduates will be able to gather, manipulate, and analyze data for purposes of understanding business problems and designing solutions for them.

Our graduates will be able to apply industry-standard tools and technologies to facilitate the problem solving process.

Our graduates will be able to generate original and innovative solutions to new and existing business problems.

## Learning Goal 3:

Our graduates will demonstrate the ability to think strategically about business issues.

Our graduates will be able to identify strategic issues and differentiate them from tactical issues.

Our graduates will be able to explain and apply concepts, models and tools of strategic analysis.

Our graduates will be able to identify and evaluate the short-term and long-term implications of business decisions for an organization's stakeholders.

Our graduates will be able to appraise situations faced by a business organization from a broad perspective that considers economic, legal, ethical, and social factors.

## Learning Goal 4:

Our graduates will demonstrate the ability to apply supply chain concepts in a variety of practical situations to gain insights into how to improve supply chain performance, and use those insights to communicate, persuade, and motivate change.

Our graduates will be to communicate using industry terminology.

Our graduates will be able to structure problems and perform logical analysis by translating descriptions of a variety of business situations into formal models and analyzing those models in an organized fashion.

Our graduates will be able to employ negotiation skills which to acquire resources and reduce the cost structure of the supply chain.

## Satisfactory Progress

Students are required to maintain a GPA of 3.0 or higher to meet degree requirements.

## Doctorate

### Business Administration, PhD

## Contact

Michel Benaroch, Associate Dean for Research and Ph.D. Programs, Whitman School of Management, 721 University Avenue, 315-443-3429, mbenaroc@syr.edu

## Program Description

The program of study leading to the doctor of philosophy degree in business administration prepares outstanding candidates for academic research careers in higher education.

With a strong emphasis on research, the program stresses academic competence and preparation for a scholarly career in one of the fields of business administration such as accounting, finance, marketing, entrepreneurship, management, management information systems, managerial statistics, and supply chain management. A supporting field in another discipline or interdisciplinary area within the Whitman School of Management or elsewhere in the University is required.

## Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

## Admission

It is normally expected that applicants will hold an appropriate master's degree from an accredited institution, although outstanding students will be considered with a baccalaureate degree.

Applicants must:

Obtain recommendations from at least three professors thoroughly familiar with their previous academic performance and qualified to evaluate their ability to do doctoral work;

Achieve a strong score on the Graduate Management Admissions Test (GMAT), administered nationally by the Educational Testing Service of Princeton, New Jersey. (Can be substituted by a GRE score)

Present a previous academic record of superior quality and meet the Syracuse University Graduate School requirements for matriculation.

## Financial Support

The Ph.D. is a full-time program in which students are engaged in full-time graduate study, research, and teaching. Financial support is provided for most students through a Teaching Assistant (TA) position for four years, which includes a stipend and a full-tuition scholarship of up to 24 credits per academic year, subject to satisfactory performance

## Degree Requirements

Individual programs of doctoral candidates vary according to their objectives, special interests, background, and previous formal educational preparation. Each student's program must be approved by the candidate's advisor.

Depending upon a candidate's training and experience, a minimum of 72 credit hours beyond the baccalaureate degree are required leading to the doctor of philosophy degree. Students are also expected to complete a summer research paper under a faculty mentor. The coursework includes a dissertation that demonstrates ability to do original scholarly research. An oral defense of the dissertation is required. In addition, students are exposed to teaching-related experience during their program prior to degree completion.

## Additional Information

Information can be found on the Internet at [whitman.syr.edu/phd](http://whitman.syr.edu/phd)

## Combined Degree

### Accounting, JD/MBA

#### Degree Requirements

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. 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

### Aerospace Engineering/ Business Administration (3-2 Program), BS/MBA

#### Contact

Whitman Graduate Programs Office, Suite 315, 315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records & Study Abroad, College of Engineering & Computer Science, 130 Link Hall, 315-443-5191, mcmarce@syr.edu

**Students will complete 128 credits for the Bachelor of Science in Aerospace Engineering degree and an additional 54 credits for the MBA degree.**

3+2 Program

## 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:

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.

## Bioengineering/Business Administration, BS/MBA

## Contact

Whitman Graduate Programs Office, Suite 315, 315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records & Study Abroad, College of Engineering & Computer Science, 130 Link Hall, 315-443-5191, mcmarce@syr.edu

**Students will complete 130 credits for the Bachelor of Science in Bioengineering degree and an additional 54 credits for the MBA degree.**

3+2 Program

## 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:

## GRADUATE COURSE CATALOG

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.

## Chemical Engineering/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records  
& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

**Students will complete 128 credits for the Bachelor of Science in Chemical Engineering degree and an additional 54 credits for the MBA degree.**

3+2 Program

### 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:

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.

## Civil Engineering/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records

& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

**Students will complete 128 credits for the Bachelor of Science in Civil Engineering degree and an additional 54 credits for the MBA degree.**

3+2 Program

### 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:

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

## GRADUATE COURSE CATALOG

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.

## Computer Engineering/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records  
& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

## Students will complete 129 credits for the Computer Engineering degree and an additional 54 credits for the MBA degree.

3+2 Program

### 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:

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.

### 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.

## Computer Science/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records  
& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

## Students will complete 124 credits for the Bachelor of Science in Computer Science degree and an additional 54 credits for the MBA degree.

3+2 Program

### 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:

Year 1 & 2: Enrollment in required undergraduate coursework

Year 3: Enrollment in some MBA courses and summer MBA coursework, continued progress in undergraduate coursework



## GRADUATE COURSE CATALOG

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.

## Defense Comptrollership, MBA/EMPA

### Contact

Irma P. Finocchiaro, Director, Executive/Defense Programs, 420 Whitman School of Management, 315-443-2898, ifinocch@syr.edu

## Program Description

The Defense Comptrollership Program (DCP) is a unique cooperative endeavor between the Department of Defense/ Department of Homeland Security and Syracuse University. Jointly established in 1952 by the Whitman School of Management and the Maxwell School of Citizenship and Public Affairs, DCP was designed to provide an academic foundation of both business and government theory. It is a dual degree M.B.A./Executive Master of Public Administration (Executive M.P.A.). As the practice of these concepts and theories will be utilized in the dynamic environment of national defense, emphasis is placed upon the implications for comptrollership. The DCP participants pursue the traditional M.B.A. and Executive M.P.A. curriculum along with the other graduate students during the fall and spring semesters. The transition to the practice of Defense Comptrollership is delivered to the DCP class during summer sessions. As part of the course, students are required to take the Certified Defense Financial Management Exam and spend a week in Washington D.C. Upon successful completion of the 14-month tailored curriculum, commissioned officers and professional civilian employees are awarded both an M.B.A. and an Executive M.P.A. degree and assigned to resource management positions throughout the Department of Defense.

## Accreditation

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

### Degree Requirements

This is a 60 credit dual degree that leads to a Master in Business Administration degree and an Executive masters in Public Administration degree.

#### First Quarter-Summer (12 credits)

**MBC 601 - Economic Foundations of Business 1.5 credit(s)**

**MBC 602 - Economics for International Business 1.5 credit(s)**

**MBC 603 - Creating Customer Value 1.5 credit(s)**

**MBC 604 - Managing the Marketing Mix 1.5 credit(s)**

**MBC 638 - Data Analysis and Decision Making 3 credit(s)**

PPA 730 - Dispute Resolution for Public Managers 3 credit(s)

#### Second Quarter-Fall (15 credits)

**PAI 897 - Fundamentals of Policy Analysis 3 credit(s)**

**MBC 606 - Information Technology for Decision Support 1.5 credit(s)**

**MBC 607 - Understanding Financial Statements 1.5 credit(s)**

**MBC 608 - Creating Financial Statements 1.5 credit(s)**

**MBC 610 - Opportunity Recognition and Ideation 1.5 credit(s)**

**SCM 656 - Project Management 3 credit(s)**

**PAI 895 - Mid-career Training Group 1-3 credit(s)** (3 credits required) or

PAI Elective Choice 3 credit(s)

#### Third Quarter-Winter and Spring (18 credits)

**PAI 742 - Public Administration and Law 3 credit(s)** or

PAI Elective Choice 3 credit(s) (Winter)

**FIN 600 - Selected Topics 1-6 credit(s)**  
Bank Management (1.5 credits required)

**MBC 609 - Accounting for Managerial**

**Decisions 1.5 credit(s)**

**MBC 616 - Operations Management 1.5 credit(s)**

**MBC 617 - Supply Chain Management 1.5 credit(s)**

**MBC 618 - Competitive Strategy 1.5 credit(s)**

**MBC 619 - Corporate Strategy 1.5 credit(s)**

**MBC 627 - Financial Markets and Institutions 1.5 credit(s)**

**MBC 628 - Fundamentals of Financial Management 1.5 credit(s)**

**PAI 895 - Mid-career Training Group 1-3 credit(s)** (3 credits required) or

PAI Elective Choice 3 credit(s)

#### Fourth Quarter-Summer (15 credits)

One week visit to Washington, DC

**ACC 760 - Principles of Fraud Examination 3 credit(s)**

**BUA 600 - Selected Topics 1-6 credit(s)**  
Seminar in Resource Management (3 credits required)

**BUA 786 - Sem/Army Comptrollership 3 credit(s)**

**MBC 647 - Global Entrepreneurial Management 3 credit(s)**

**PAI 996 - Master's Project Paper 3 credit(s)**

### Additional Information

\* 24 hours of Community Service and passing the CDFM examinations are required

### Satisfactory Progress

Students are required to maintain a GPA of 3.0 or higher to meet degree requirements.

## Electrical Engineering/ Business Administration (3-2 Program), BS/MBA

### Contact

Whitman Graduate Programs Office, Suite 315, 315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records & Study Abroad, College of Engineering &

## GRADUATE COURSE CATALOG

Computer Science, 130 Link Hall, 315-443-5191, mcmarce@syr.edu

### **Students will complete 132 credits for the Bachelor of Science in Electrical Engineering degree and an additional 54 credits for the MBA degree.**

#### **3+2 Program**

#### **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:**

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.

### **Environmental Engineering/Business Administration (3-2 Program), BS/MBA**

#### **Contact**

Whitman Graduate Programs Office, Suite 315, 315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records & Study Abroad, College of Engineering & Computer Science, 130 Link Hall, 315-443-5191, mcmarce@syr.edu

### **Students will complete 129 credits for the Bachelor of Science in Environmental Engineering degree and an additional 54 credits for the MBA degree.**

#### **3+2 Program**

#### **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:**

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.

### **Finance, JD/MBA**

#### **Degree Requirements**

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. 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.

## GRADUATE COURSE CATALOG

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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

### **Mechanical Engineering/ Business Administration (3-2 Program), BS/MBA**

#### **Contact**

Whitman Graduate Programs Office, Suite 315,  
315-443-4327, busgrad@syr.edu

Maria Marceau, Director of Student Records  
& Study Abroad, College of Engineering &  
Computer Science, 130 Link Hall, 315-443-5191,  
mcmarce@syr.edu

**Students will complete 128  
credits for the Bachelor  
of Science in Mechanical  
Engineering degree and an  
additional 54 credits for the  
MBA degree.**

3+2 Program

#### **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:**

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.

#### **Certificate of Advanced Study**

### **Sustainable Enterprise (CASSE), CAS**

#### **Contact**

Todd Moss, Faculty Director Sustainable Enterprise Partnership, 540 Whitman School of Management, 315-443-9215, tmoss@syr.edu

#### **Program Description**

The Certificate of Advanced Study in Sustainable Enterprise (CASSE) is offered collaboratively by the Whitman School of Management, the College of Engineering and Computer Science, the State University of New York College of Environmental Science and Forestry, and the Syracuse Center

of Excellence in Environmental and Energy Systems. The CASSE integrates business, science, engineering, policy, and practice, taking a transdisciplinary approach to sustainable enterprise.

Students who complete the certificate will be fluent in the economic, environmental, and social dimensions of sustainability and their interdependence; systems science and its relationship to sustainability; and the natural, financial, technical, legal, and social drivers of sustainability strategy in businesses and other organizations. They will be prepared to engage in transdisciplinary collaboration to develop sustainable solutions to complex organizational challenges.

The Whitman School has been accredited by the Association to Advance Collegiate Schools of Business (AACSB International) since 1920.

### **Financial Support**

Students may apply for several loan programs to cover the cost of attendance. (Federal Direct Loan, Program Federal PLUS Loans, Alternative Loan Programs) Part-time students must be enrolled for at least six credits (half-time status) to be considered for loan programs.

Additionally, there are partial scholarships available for students who need to take additional courses above and beyond their graduate degree program to complete the CASSE program.

### **Admission**

Students must be matriculated into a graduate program at Syracuse University or SUNY ESF to be considered for admission to the program.

#### **Certificate Requirements**

Students must complete 15 credits for the certificate.

**BUA 650 - Managing Sustainability:  
Purpose, Principles, and Practice 3  
credit(s)** or

**ECS 650 - Managing Sustainability:  
Purpose, Principles, and Practice 3  
credit(s)** or

EST 696 - Managing Sustainability: Purpose,  
Principles, and Practice 3 credit(s)

**BUA 651 - Strategic Management and the  
Natural Environment 3 credit(s)** or

**ECS 651 - Strategic Management and the  
Natural Environment 3 credit(s)**

**BUA 759 - Sustainability-Driven Enterprise  
3 credit(s)** or

## GRADUATE COURSE CATALOG

### **ECS 759 - Sustainability-Driven Enterprise** 3 credit(s) or

EST 796 - Sustainability-Driven Enterprise 3 credit(s)

6 credits of electives

## Accounting

### **ACC 601 - Intermediate Financial Accounting I**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Double Numbered with: ACC 356

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: MBC 632 OR MBC 609

### **ACC 602 - Intermediate Financial Accounting II**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Double Numbered with: ACC 357

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 601

### **ACC 610 - Activity Based Costing and Management**

**Martin J. Whitman School of Management**

1.5 credit(s) At least 1x fall or spring

Comparison of the traditional absorption costing systems and the emerging activity-based costing systems with respect to their usefulness for managerial decisions

PREREQ: MBC 609

### **ACC 621 - Cost Analysis & Control**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Double Numbered with: ACC 363

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: MBC 609 OR MBC 632

### **ACC 677 - International Reporting and Analysis**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: INB 677

The implications of differences in international financial reporting practices for financial analysis and decision making. Foreign currency translation, mergers and acquisitions, transfer pricing, taxation, derivatives, and risk management.

PREREQ: ACC 602 OR ACC 357

### **ACC 685 - Principles of Taxation**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Double Numbered with: ACC 385

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: MBC 609 OR MBC 632

### **ACC 725 - Financial Statement Analysis**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

The role of financial statement information in assessing a firm's performance, prospects, and value. Financial analysis, equity valuation, competitive analysis, merger and acquisition analysis, international financial statement analysis.

PREREQ: ACC 602 OR ACC 357

### **ACC 726 - Auditing Theory/Practice**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Double Numbered with: ACC 476

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 602 OR ACC 357

### **ACC 736 - Strategic Cost Analysis**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Contemporary cost accounting systems in relation to strategic decisions and control of various economic organizations. Emphasizing activity-based costing, activity-based management, and integrated cost systems.

PREREQ: ACC 621 OR ACC 363

### **ACC 744 - History of Regulation of Trade and Business**

**Martin J. Whitman School of Management**

2-3 credit(s) At least 1x fall or spring

This course explores the legal and moral principles of business and trade regulation over 5,000 years, including: ancient regulation of prices, usury laws, licensing, and other concepts as they evolved into our current system.

### **ACC 745 - Property and Tax from Ancient Athens to Modern America**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

This course covers how the ancients developed concepts of private property and tax, adjudicated disputes, and developed concepts that influence the law today. Development of legal theory assists in understanding practical applications of the law.

### **ACC 747 - Advanced Auditing**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Seminar discussion of advanced auditing research and cases. Topics include the market for assurance services, auditor decision making, audit risk, and information systems auditing.

PREREQ: ACC 726

### **ACC 756 - Advanced Financial Accounting**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Double Numbered with: ACC 477

Accounting and reporting for business combinations, foreign currency transactions, derivatives, and governmental entities. Extra work required of graduate students.

PREREQ: ACC 602 OR ACC 357

### **ACC 757 - Taxes & Business Strategy**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Incorporating tax costs and benefits into business planning and decision-making. Highlights the problems of entrepreneurs, transfers of businesses, financial reporting affects, business lifecycle and entity choice, and international operations.

PREREQ: ACC 685 OR ACC 385

### **ACC 760 - Principles of Fraud Examination**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

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

## GRADUATE COURSE CATALOG

asset misappropriation schemes, corruption, and financial statement fraud. Additional work required of graduate students.

PREREQ: ACC 621

### **ACC 775 - International Tax Planning and Research**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Issues concerning the taxation of international transactions; various complex issues in partnership and corporate tax planning; issues with joint ventures and consolidated returns filed in the U.S. Permission of instructor required if prerequisite not met.

PREREQ: ACC 757

### **ACC 777 - Taxation of Business Entities**

#### ***Martin J. Whitman School of Management***

3 credit(s) Irregularly

Double Numbered with: ACC 481

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 685 OR ACC 385

### **ACC 786 - Fin Sys Analy/Social Inst**

#### ***Martin J. Whitman School of Management***

3 credit(s) Upon sufficient interest

Role of financial management systems in nonprofit organizations such as hospitals, education, government and social programs. System cost analysis, budgeting analysis, impact of people on budgets, cost effectiveness analysis, and developing social accounting systems.

PREREQ: ACC 601 OR ACC 356

### **ACC 855 - Sem/Acc/Thry:Current Devp**

#### ***Martin J. Whitman School of Management***

3 credit(s) Irregularly

Current developments in financial and managerial accounting theory. Research studies and pronouncements by authoritative accounting organizations. Areas of controversy. Papers on selected topics required.

### **ACC 860 - Research in Accounting**

#### ***Martin J. Whitman School of Management***

3 credit(s) Irregularly

Directed readings and individual research into controversial and special areas of accounting. Papers presented on selected topics.

Repeatable 1 time(s), 6 credits maximum

### **ACC 960 - Doctoral Seminar**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Repeatable

## **Business Administration**

### **BUA 600 - Selected Topics**

#### ***Martin J. Whitman School of Management***

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **BUA 650 - Managing Sustainability: Purpose, Principles, and Practice**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECS 650

Dynamics and interdependence of economic, social, and environmental systems. Sustainable management frameworks, tools, and metrics. Local, national, and international implications. Relevance of technology, ethics, law, and policy. Interdisciplinary emphasis.

### **BUA 651 - Strategic Management and the Natural Environment**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECS 651

Sustainability from firm perspective. Regulatory, international, resource, market, and social drivers of environmental strategy. Impact of sustainability-related strategies on competitive advantage and potential liability.

PREREQ: BUA 650 OR ECS 650

### **BUA 670 - Experience Credit**

#### ***Martin J. Whitman School of Management***

1-6 credit(s) Every semester

Participation in a discipline- or subject-related experience. Evaluation by written or oral reports or an examination. Prereq: permission of the department, assigned instructor, and dean. Limited to those in good academic standing.

Repeatable

### **BUA 690 - Independent Study**

#### ***Martin J. Whitman School of Management***

1-6 credit(s) Every semester

Exploration of a problem or problems in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department.

Repeatable

### **BUA 759 - Sustainability-Driven Enterprise**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECS 759

CAS in Sustainable Enterprise capstone.

Sustainable approaches to complex organizational challenges, opportunities: organizational, industry, stakeholder analysis, sustainability objectives, strategies, and metrics. Multidisciplinary team consulting project.

PREREQ: (BUA 650 OR ECS 650) AND (BUA 651 OR ECS 651)

### **BUA 786 - Sem/Army Comptrollership**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Courses in individual subject areas are

integrated and related to the total resource and general management problems of the Army.

Management job of the commander at various levels in the Army organization. Policy making and administration from an overall management point of view with respect to each organization under study. Methods whereby the comptroller, as a member of the staff, can and should assist the commander in the solution of command problems.

### **BUA 787 - Sem/Army Comptrollership**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Courses in individual subject areas are

integrated and related to the total resource and general management problems of the Army.

Management job of the commander at various levels in the Army organization. Policy making and administration from an overall management point of view with respect to each organization under study. Methods whereby the comptroller, as a member of the staff, can and should assist the commander in the solution of command problems.

### **BUA 897 - Resrch Methods & Projects**

#### ***Martin J. Whitman School of Management***

3 credit(s) Every semester

Research project in any selected area; may be area of concentration. Results of research are prepared and presented under supervision of the faculty advisor.

### **BUA 960 - Survey of Research Methods in Business**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Quantitative business research techniques for surveys, experiments and archival data analysis including model building, cross sectional and longitudinal models, simultaneous equations,

## GRADUATE COURSE CATALOG

choice models, structural equation modeling, hierarchical linear models, ANOVA, conjoint analysis and survival analysis.

### **BUA 997 - Masters Thesis**

**Martin J. Whitman School of Management**  
0-6 credit(s) At least 1x fall or spring  
Repeatable

### **BUA 999 - Dissertation**

**Martin J. Whitman School of Management**  
0-15 credit(s) At least 1x fall or spring  
Repeatable

## **Entrepreneurship and Emerging Enterprises**

### **EEE 620 - Foundations of Entrepreneurship**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
The process of entrepreneurship in start-up and established corporate environments. Approaches entrepreneurship as both attitudinal and behavioral, with applicability in a variety of contexts. Global dimensions of entrepreneurship are investigated as they relate to the independent and corporate entrepreneur. Cannot be repeated for credit. Must be admitted to a graduate program at SU.

### **EEE 621 - Corporate Entrepreneurship**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: EEE 420  
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.

### **EEE 625 - Venture Capital**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
Financing issues as they relate to entrepreneurial ventures. The financial needs and financing strategies of growth-oriented ventures are highlighted. Stages of entrepreneurial finance are investigated. The roles of valuation, deal structures and negotiation tactics are explored.

### **EEE 630 - Entrepreneurship in Engineering and Science**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
The intersection of engineering and entrepreneurship, focusing on the commercialization of new technologies into start-

up ventures. Types of technologies, technology life cycles, windows of opportunity, the market chasm, and intellectual property as these issues apply to venture creation by those with technical backgrounds.

### **EEE 640 - Social Entrepreneurship**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
Examination of the opportunities and challenges associated with using entrepreneurial solutions to address social problems. Course integrates management, evaluation, and analytical techniques to support the launch, operation, and expansion of social purpose organizations.

### **EEE 643 - Emerging Enterprise Consulting**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
Students work in consulting teams to assist small local firms and entrepreneurs. Problems are isolated and solutions are then developed and implemented. A team consultant's report is then prepared.

### **EEE 644 - Dilemmas and Debates in Entrepreneurship**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: EEE 444  
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 652 - International Entrepreneurship**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
Crosslisted with: INB 652  
Double Numbered with: EEE 452  
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 664 - Entrepreneurial Empowerment**

**Martin J. Whitman School of Management**  
3 credit(s) Only during the summer  
Double Numbered with: EEE 464  
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 670 - Experience Credit**

**Martin J. Whitman School of Management**  
1-6 credit(s) Every semester  
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.  
Repeatable

### **EEE 682 - Entrepreneurial Marketing**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: EEE 382  
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. Additional work required of graduate students.  
PREREQ: MBC 636

### **EEE 900 - Selected Topics**

**Martin J. Whitman School of Management**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

### **EEE 930 - Theoretical Foundations of Entrepreneurship**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
History, direction, and substance of developments in the field of entrepreneurship. Advanced topics related to theoretical foundations and the advancement of research within the field. Admission to doctoral program in the School of Management is required.

## **Finance**

### **FIN 600 - Selected Topics**

**Martin J. Whitman School of Management**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **FIN 643 - Real Estate Capital Markets**

**Martin J. Whitman School of Management**  
3 credit(s) At least 1x fall or spring  
Crosslisted with: RES 643  
Real estate debt and equity instruments. Primary and secondary mortgage markets, mortgage

## GRADUATE COURSE CATALOG

banking, loan instruments, and securitization. Lender and borrower decisions regarding real estate financing. Additional work required of graduate students.

PREREQ: FIN 751 OR FIN 756

### FIN 653 - New and Emerging Markets

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: INB 653

Analysis of the business, economic, and financial environment of emerging markets. Portfolio investment analysis and corporate financial policy and strategies in emerging markets.

### FIN 657 - International Financial Management

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Crosslisted with: INB 657

Major financial decisions of international firms in context of special risks and opportunities. Foreign direct investment theory.

PREREQ: MBC 633

### FIN 659 - Introduction to Derivatives

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Double Numbered with: FIN 459

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: MBC 633

### FIN 660 - Fixed Income Securities

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Pricing, market structure, hedging, trading strategies for fixed income derivative securities like swaps, swaptions, caplets, floorlets, and credit risk derivative instruments.

### FIN 664 - Institutional Trading

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Double Numbered with: FIN 464

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 665 - The Securities Market

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Double Numbered with: FIN 465

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: MBC 633

### FIN 666 - Value Investing

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Double Numbered with: FIN 466

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: MBC 633

### FIN 668 - Seminar in Finance

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Double Numbered with: FIN 468

Specialized work for advanced students on particular phase or topic in finance. Reading, reports, and thesis.

PREREQ: MBC 633, ECN 601

### FIN 669 - Distress Investing

**Martin J. Whitman School of Management**

3 credit(s) Only during the summer

Double Numbered with: FIN 469

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.

### FIN 672 - Case Studies in Real Estate Investment and Finance

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: RES 672

Double Numbered with: FIN 472

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 673 - Control Investing

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Double Numbered with: FIN 473

What control investors do and how they do it: friendly and hostile takeovers, leveraged buyouts and other contests for control are covered.

PREREQ: FIN 666

### FIN 741 - Risk Management: Credit Risk

**Martin J. Whitman School of Management**

1.5 credit(s) Irregularly

Quantitative models dealing with default risk. Credit risk models, credit derivative markets, credit default swaps and linked notes, credit spread options, basket default swaps.

PREREQ: MBC 633 AND MBC 638

### FIN 742 - Risk Management: Operational Risk

**Martin J. Whitman School of Management**

1.5 credit(s) Irregularly

Evaluation and management of operational risk in a banking/financial institution environment. Regulatory risk and capital requirements. Theoretical and practical aspects of operational risk models.

PREREQ: MBC 627, MBC 628, MBC 631, AND MBC 638

### FIN 751 - Corporate Financial Policy & Strategy

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Advanced issues in corporate investment decisions, dividend and debt policy, corporate restructuring, risk management, and corporate governance.

PREREQ: ECN 604, MBC 633, AND MBC 638

### FIN 755 - Applied Financial Management

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Selected applications of financial analysis and theory to firm problems. Topics vary as financial environment changes. Mergers, acquisitions, ESOP leveraged leasing, etc. Seminar method, written and oral reports, case analyses.

PREREQ: MBC 633

### FIN 756 - Investment Analysis

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

For students desiring preparation for professional investment work. Detailed analysis of individual securities and application of analytical methods to portfolio management.

PREREQ: MBC 633, MBC 638

### FIN 758 - Portfolio Analysis and Theory

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Practical as well as theoretical problems of modern portfolio selection techniques and analysis. Independent, empirical work by the student and important macro implications of

## GRADUATE COURSE CATALOG

portfolio selection.

PREREQ: FIN 756, MAS 766/ISM 743

### **FIN 761 - Financial Modeling**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

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 751 OR FIN 756

### **FIN 827 - Corporate Financing Transactions**

**Martin J. Whitman School of Management**

1.5-2 credit(s) At least 1x fall or spring

This course combines diverse aspects of business and law education in a transaction-based setting. It guides students through a syndicated commercial loan, including the structuring, negotiation, pricing, and documentation.

### **FIN 855 - Financial Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Theory of financial decision making, consumption and investment decisions. Selected problems of application of corporate policy including capital budgeting under uncertainty, leasing, corporate growth, mergers, liquidation, and reorganization. Theoretical and empirical aspects of valuation.

PREREQ: FIN 751, MAS 766

### **FIN 856 - Analytical Methods/ Managerial Research**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Selected topics in mathematical programming simulation, the general linear model, and numerical taxonomy as applied to research in the field of management. Individual research projects developed by the student. Can be taken more than once depending on the student's interest and permission of the instructor. Knowledge of FORTRAN IV or PL/1 is assumed.

### **FIN 960 - Grad Seminar in Finance**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Readings, discussions, and reports for doctoral candidates.

Repeatable

## **International Business**

### **INB 651 - Management in a Cross-cultural Environment**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

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. Additional work required of graduate students.

PREREQ: SOM 354

### **INB 652 - International Entrepreneurship**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: EEE 652

Double Numbered with: INB 452

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 653 - New and Emerging Markets**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: FIN 653

Analysis of the business, economic, and financial environment of emerging markets. Portfolio investment analysis and corporate financial policy and strategies in emerging markets.

### **INB 657 - International Financial Management**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Crosslisted with: FIN 657

Major financial decisions of international firms in context of special risks and opportunities. Foreign direct investment theory.

PREREQ: MBC 633

### **INB 677 - International Reporting and Analysis**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: ACC 677

The implications of differences in international financial reporting practices for financial analysis and decision making. Foreign currency translation, mergers and acquisitions, transfer pricing, taxation, derivatives, and risk management.

PREREQ: MBC 631

### **INB 759 - The Law of Global Business**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: LPP 759

The legal environment of international business: the framework of international law and organizations influencing the transactions of international business. Topics include the international law, international contracts, customs, and world trade law.

### **INB 769 - International Business Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Strategic decision-making in the international environment. Critical factors in growth and stability, profitability, market share, and return on investment. Relationship between the enterprise and its legal, economic, political, and cultural environments.

## **Independent Study Degree Program**

### **ISM 615 - Microeconomics**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

## **Law and Public Policy**

### **LPP 755 - Law of Business Organizations**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Double Numbered with: LPP 455

Legal aspects of organizations formed to carry on business enterprises: agencies, partnerships, and corporations.

PREREQ: LPP 255 OR MBC 643

### **LPP 756 - Land Development Law**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Double Numbered with: LPP 456

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 643

### **LPP 757 - Law of Commercial Transactions**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Double Numbered with: LPP 457

Legal aspects of commercial transactions. Contracts, sale of goods, commercial paper, and secured transactions.

PREREQ: LPP 255 OR MBC 643



## GRADUATE COURSE CATALOG

### **LPP 758 - Environmental Law and Public Policy**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Double Numbered with: LPP 458

Range of environmental problems from a legal and public policy viewpoint: air, water, and toxics pollution; solid and hazardous waste; and environmental planning.

### **LPP 759 - The Law of Global Business**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Crosslisted with: INB 759

The legal environment of international business: the framework of international law and organizations influencing the transactions of international business. Topics include the international law, international contracts, customs, and world trade law.

PREREQ: LPP 255 AND SCM 265

### **LPP 765 - Social Influences On Business**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Various environmental factors that control and enhance the conduct of business. Nature, function, impact, and development of such factors. Matters of current interest.

### **LPP 766 - Seminar in Business-Government Relations**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Topics in business-government relations, including regulation of competition, trade practices, securities, communications, utilities, and employment. Joint business-government ventures. Governmental promotion of business activity. Government purchasing and contracting.

### **LPP 767 - Management and Ethics**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Double Numbered with: LPP 467

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.

## **Marketing Management**

### **MAR 655 - Customer Relationship Management with Systems Applications and Products**

*Martin J. Whitman School of Management*

3 credit(s)

Crosslisted with: MIS 655, SCM 655

Integration of marketing, supply-chain and technology management aspects of customer relationship management. Operational, analytical and collaborative processes supported by SAP's integrated software. Actual use of SAP software, including Business Data Warehouse, with best-practice processes.

### **MAR 721 - Marketing and the Internet**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

The course focuses on how traditional marketing approaches have to be modified to take advantage of the reach and capabilities of the internet, from understanding customer needs to after sales customer services.

PREREQ: (MBC 603, MBC 604) OR MBC 636

### **MAR 741 - Marketing Community and Public Service Agencies**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Design, implementation, and control of marketing programs for community and public service agencies: performing arts, health care, urban planning, police, educational, scientific, and technical organizations

### **MAR 745 - Strategic Brand Management**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Concepts and tools acquired from various marketing courses to develop analytical and decision-making skills for planning and implementing a marketing strategy from the brand manager's point of view.

PREREQ: MBC 604 OR MBC 636

### **MAR 751 - Environmental Influences on Innovation**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Major environmental forces that shape innovation policy from a technology, market, international, economic, social, and political-legal perspective. Managerial response to environmental forces.

PREREQ: MBC 636

### **MAR 752 - Introduction to Innovation Management**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

The process of converting ideas, technology, and customer needs into new products, services, and processes. Environmental and organizational influences on the innovation process.

PREREQ: MBC 636

### **MAR 753 - Marketing Channel Management**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Marketing channels as both economic and social systems. Channel change and evolution, channel membership, structural and functional relationships, interorganizational behavior, and channel information management.

PREREQ: MBC 636

### **MAR 754 - Seminar in Marketing Research**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Collection, analysis, and interpretation of data. Problem definition, questionnaire design, attitude measurement, data analysis, and demand forecasting. For those interested in conducting marketing research or using research information for marketing decision making.

PREREQ: MBC 636, MBC 638

### **MAR 755 - Marketing Communications Strategy**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Managerial aspects. Determination of promotional budgets, planning and building promotional effectiveness, scheduling and monitoring promotional impact.

PREREQ: MBC 636

### **MAR 756 - Market Measurement and Analysis**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Application of analytical and quantitative techniques to market measurement. Product-market strategy.

PREREQ: MBC 636 AND MBC 638

### **MAR 757 - Managing Innovative Products and New Ventures**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Problems in developing new products and new corporate ventures. Designing innovation strategies, risk taking, technology planning, evaluation of new product proposals, and managing the innovation team.

PREREQ: MBC 636

## GRADUATE COURSE CATALOG

### **MAR 759 - Seminar in Marketing**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Selected topics in marketing. Current issues and problems in marketing.

PREREQ: MBC 636

### **MAR 761 - Marketing Strategies for Innovations**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Commercializing new products, services, and technologies. Introduction and diffusion of innovations, market planning, product strategy design, and marketing decision making.

PREREQ: MBC 636

### **MAR 777 - Global Supply Chain Strategy**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Crosslisted with: SCM 777

Topics include: design of global facility networks, containerization and logistical planning across borders, benefits and risks of outsourcing and offshoring while integrating financial and accounting-related matters such as exchange rates, duties, drawbacks and tax differentials.

PREREQ: MBC 616, MBC 638

### **MAR 930 - Seminar in Marketing Theory**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Current marketing theory as developed by contemporary writers.

PREREQ: MBC 636

Repeatable

### **MAR 960 - Doctoral Seminar in Marketing**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Repeatable

### **MAR 962 - Marketing and Supply Chain Models**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Crosslisted with: SCM 962

Statistical/econometric and management science modeling approaches to marketing/supply chain management problem solving.

## **Managerial Statistics**

### **MAS 653 - Accelerated Managerial Statistics**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Survey of statistics for managerial decision making. Applications and problem identification. Descriptive statistics, probability, sampling, estimation, hypothesis testing, time-series analysis, simple and multiple regression, and statistical decision theory.

### **MAS 723 - Nonparametric Statistics**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Statistical methods that make no assumptions about the probability distribution sampled. Methods based on signs, ranks, and order statistics, related aspects of probability theory, statistical inference, special procedures, and case examples.

PREREQ: MBC 638 OR MAS 653

### **MAS 765 - Sample Survey Methods and Theory**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Simple random, stratified, systematic, cluster, and multistage sampling methods. Cost and precision. Methods of estimation; simple, unbiased, ratio, regression, and composite methods of measuring and controlling nonsampling errors.

PREREQ: MBC 638

### **MAS 766 - Linear Statistical Models I: Regression Models**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

General regression model, estimation methods, general linear hypothesis tests, residual analysis, indicator variables, multicollinearity, autoregressive model, weighted least squares, variable-screening procedures.

### **MAS 767 - Linear Statistical Models II: Variance**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Single and multiclassification analysis of variance for fixed, random, and mixed effects models, simultaneous estimation method implementation of ANOVA models, analysis of covariance.

PREREQ: MAS 766

### **MAS 777 - Time Series Modeling and Analysis**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Fundamental concepts and procedures for forecasting discrete time series for planning and

control. Regression analysis, ARIMA methods, econometric modeling, transfer functions, intervention analysis, Kalman filters, univariate and multivariate methods.

PREREQ: MBC 638

### **MAS 788 - Causal Modeling and Analysis**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Multivariate Statistical techniques and analysis strategies for formulating and testing causal models using both experimental and nonexperimental data sources Path analysis, correlation and causality, sources of estimation-bias interpretation and limitations simultaneous equation models, confirmator, factor analysis, measurement error and latent variable models, and structural equations.

PREREQ: MBC 638

## **Master of Business Core**

### **MBC 600 - Selected Topics**

*Martin J. Whitman School of Management*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **MBC 601 - Economic Foundations of Business**

*Martin J. Whitman School of Management*

1.5 credit(s) At least 1x fall or spring

Business applications of selected economic tools such as supply and demand, production, costs, and the basic models of market structure. The use of these tools for managerial decision making.

### **MBC 602 - Economics for International Business**

*Martin J. Whitman School of Management*

1.5 credit(s) At least 1x fall or spring

The global business and economic environment and its implications for managerial decision making. Global markets, industrial structure in the global economy, multinationals, foreign direct investment, and international trade. Global risks and management.

PREREQ: MBC 601

### **MBC 603 - Creating Customer Value**

*Martin J. Whitman School of Management*

1.5 credit(s) At least 1x fall or spring

How marketing managers develop an organization-wide customer orientation and create customer value through strategic planning, systematic analysis of the market environment, effective customer segmentation, target market selection,

## GRADUATE COURSE CATALOG

and product positioning.

### **MBC 604 - Managing the Marketing Mix**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Concepts and skills needed for developing and implementing the product, pricing, distribution, and communication strategies for goods and services. Focus on building sound, actionable, integrated marketing plans based upon target market and positioning strategies.

PREREQ: MBC 603

### **MBC 606 - Information Technology for Decision Support**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Information technology tools for decision support using spreadsheets and databases. Spreadsheet fundamentals, data extraction from databases, what-if analysis, scenario evaluation, and finding optimal solutions to problems.

### **MBC 607 - Understanding Financial Statements**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Financial statement information and related disclosures. Interpretation of financial information to assess and evaluate firm performance.

### **MBC 608 - Creating Financial Statements**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Financial accounting concepts and procedures to record business activities. Presentation of business activities in financial statements.

PREREQ: MBC 607

### **MBC 609 - Accounting for Managerial Decisions**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

An understanding of the usefulness of the accounting information in helping managers with their decision making and decision influencing tasks.

PREREQ: MBC 608

### **MBC 610 - Opportunity Recognition and Ideation**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Focuses on four critical skill areas for contemporary M.B.A. students, including opportunity recognition: recognition, opportunity assessment, creative problem solving, and

translation of creativity into bold business ideas.

### **MBC 616 - Operations Management**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Management of the operations function of an organization and its relationship to other functional areas and a firm's strategy.

### **MBC 617 - Supply Chain Management**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

The management of flows of resources both within and between organizations with the aim of achieving strategic advantages in terms of quality, price, choice, speed, and flexibility.

### **MBC 618 - Competitive Strategy**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Techniques and tools to analyze how competitive advantage is created and sustained, focusing on business-level strategy. Topics include industry and competitor analysis, firm resources and capabilities, competitive strategies, and competitive dynamics.

PREREQ: MBC 607

### **MBC 619 - Corporate Strategy**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Corporate-level strategy and analysis of the scope of a firm's activities. Topics include vertical integration, alliances, global strategy, diversification, and managing the multibusiness firm.

PREREQ: MBC 608 AND MBC 618

### **MBC 627 - Financial Markets and Institutions**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

The nature of the firm's financial environment and the implications for financial management. Characteristics and functions of major financial institutions and markets. Debt markets, equity markets, interest rates, initial public offerings, private equity, and valuation of financial assets.

PREREQ: MBC 601, MBC 602, MBC 607, MBC 608, AND MBC 638

### **MBC 628 - Fundamentals of Financial Management**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

Major decisions facing financial managers. Emphasis on the firm's investments decision and the tools used in its analysis. Market efficiency, risk-return analysis, valuation of real assets, and investing in risky assets.

PREREQ: MBC 627

### **MBC 629 - Legal and Ethical Aspects of Management**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

An analysis of the legal and ethical environments of business and how they influence managerial decision making and advance business objectives. The course uses cases and discussion to probe selected legal, public policy, and ethical issues affecting business.

### **MBC 630 - Behavior in Organizations**

#### ***Martin J. Whitman School of Management***

1.5 credit(s) At least 1x fall or spring

The course will cover the topics of motivation, leadership, individual differences, perception, job design, stress, and cultural diversity in the global economy. This course will address both the prescriptive and descriptive perspectives.

### **MBC 631 - Financial Accounting**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Impact of accounting information and accounting method choice on corporate decision making, reported results and financial evaluation through application of analysis techniques to published financial statements.

### **MBC 632 - Managerial Accounting**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Theory, design elements and application of cost management accounting to manage economic organizations. Focus on how accounting measures can be used to promote efficient resource allocation/consumption within the organization.

PREREQ: MBC 631

### **MBC 633 - Managerial Finance**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

Language and tools of finance. Modern theory and practice of corporate finance. Enhances ability to evaluate firm's financing, investment and dividend decisions as they relate to firm's objectives.

PREREQ: MBC 631

### **MBC 634 - Introduction to Information Technology and E-commerce**

#### ***Martin J. Whitman School of Management***

3 credit(s) At least 1x fall or spring

How traditional and e-commerce enterprises use various information technologies. The focus is on why these ITs work and on the business, managerial, organizational, and technological issues surrounding their use.

## GRADUATE COURSE CATALOG

### **MBC 635 - Operations and Supply Chain Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring  
Management of the resources used to create and distribute goods and services with the aim of achieving strategic advantages in terms of quality, price, choice, speed, and flexibility.

### **MBC 636 - Marketing Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring  
Developing an organization-wide marketing orientation and developing skills needed to make strategic and tactical decisions in marketing.

### **MBC 638 - Data Analysis and Decision Making**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring  
Concepts, principles and methods to support scientific approach to managerial problem solving and process improvement. Basic statistical techniques, their appropriateness to situations and assumptions underlying their use.

### **MBC 639 - Leadership in Organizations**

**Martin J. Whitman School of Management**

3 credit(s) Every semester  
Examines leadership on both a knowledge and skill basis. Leadership from a business perspective on three levels: individual, team, and organization.

### **MBC 642 - Strategic Human Resource Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring  
Managing human capital to create competitive advantage. Topics include strategic reward systems, performance management, attracting and developing human assets, human resource architecture design, managing workforce heterogeneity, managing organizational conflict, and legal environment of employment.

### **MBC 643 - The Legal and Ethical Environments of Business**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly  
Analysis of the legal and ethical environments of business and how they influence managerial decision making and further the objectives of the business. Discussion of cases that raise issues of law, public policy, and ethics.

### **MBC 645 - Strategic Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Strategy and its integrative role in management. Concepts, models, and skills for developing strategies to create and sustain competitive advantage in a dynamic and global environment. Topics include environmental analysis, strategy formulation, and strategy implementation.

### **MBC 647 - Global Entrepreneurial Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring  
The utilization and integration of functional area knowledge to successfully plan and launch new ventures and concepts in start-up, corporate, and nonprofit contexts.

### **MBC 691 - Experiential Perspectives and Applications**

**Martin J. Whitman School of Management**

1.5-3 credit(s) Every semester  
A set of structured managerial experiences involving the application of managerial concepts, frameworks or theories; substantive engagement with professionals within for-profit and/or non-profit organizations; and specific deliverables at the completion of each experience.  
Repeatable 5 time(s), 9 credits maximum

### **MBC 700 - Business Perspectives and Applications**

**Martin J. Whitman School of Management**

1 credit(s) Every semester  
Residencies allow students to meet face-to-face to supplement their online coursework. They focus on a topic relevant to its location. Students will learn from global business leaders who will engage them in highly interactive learning.  
Repeatable 5 time(s), 6 credits maximum

## **Management**

### **MGT 656 - Human Resource Management**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly  
Explores human resource management issues facing managers. Recruitment, selection and placement. Performance appraisal. Career planning, training and development. Compensation. Labor-management relations.

### **MGT 701 - Women in Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring  
Investigate the opportunities and obstacles that women face in management and develop skills for leading women and men in order to improve individual, group and organizational performance. Enhance critical thinking skills essential for managers.

### **MGT 702 - Transformational Management**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring  
The development of personal skills in designing, implementing, and processing structured learning intervention that facilitate comprehension of organizational dynamics as well as foster real organizational learning and transformation. An experiential learning methodology will be employed.

### **MGT 703 - Organizational Process Consultation Skills**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring  
Develop group process consultation skills necessary for creating high performance work groups as well as developing collaborative and learning relationships between groups within an organization.

### **MGT 704 - Job Satisfaction, Motivation, and Work Behavior**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly  
Theories analyzed in terms of soundness, research support, and management implications. Work design and environment, reward systems in relation to employee motivation, stress, job satisfaction and performance.

### **MGT 705 - Organizational Theory and Design**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly  
Contemporary organizational systems, structural variables, and dynamics: the organization, organizational growth, effects of size and technology, emergence of new control systems, forms of organizational pathology, and directions of change in organizational pathology, and directions of change in organizational forms.

### **MGT 709 - Business Policy**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly  
Interdepartmental approach to policy-making and administration from a top-management point of view. Thinking about business problems from an overall point of view.

### **MGT 710 - Administrative Policy**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly  
Applies the principles and techniques of management to the life-cycle management process through the use of a computerized management simulation problem. Includes

## GRADUATE COURSE CATALOG

consideration of policy-making issues from the top management point of view.  
Repeatable

### **MGT 754 - Compensation Administration**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Double Numbered with: MGT 454

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. Additional work required of graduate students.

PREREQ: MGT 355 OR 656

### **MGT 755 - Collective Bargaining**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

History and development of collective bargaining in the United States. Structure, processes, and institutional framework of collective bargaining within the industrial relations systems.

### **MGT 756 - Human Resource Assessment and Staffing**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Concepts, problems, and research related to the assessment of individual qualifications for employment and performance when recruiting, staff planning, and allocating staff resources.

PREREQ: MGT 355 OR 656

### **MGT 757 - Career Planning, Training, and Development**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Theory and analysis of the empirical evidence related to training, career planning, and development concepts, methods, and programs. Conditions of learning, program evaluation, staff and career-planning models.

### **MGT 758 - Labor Arbitration and Dispute Resolution**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Economic, social, and legal implications of labor arbitration. Historic and contemporary problems commonly adjudicated by labor arbitrators. Theoretical and empirical evidence of the effectiveness of various dispute resolution strategies.

### **MGT 761 - Strategic Planning and Corporate Forecasting for Innovative Organizations**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Focuses on innovative growth organizations continually subject to technological and economic uncertainties.

### **MGT 762 - Leadership and Organization Change**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Double Numbered with: MGT 462

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. Additional work required of graduate students.

### **MGT 763 - Authority and Power Dynamics in Organizations**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Explores the psychodynamics of authority and power within and between small work groups in the context of an evolving, fluid learning organization. Participants develop skills identifying, interpreting and expressing the emotions of leadership within groups.

### **MGT 764 - Strategic Change and Organizational Innovation**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Focuses on managing required system-wide changes through an understanding of the technical, political and cultural subsystems and their interrelationships.

### **MGT 855 - Seminar in Organization and Management**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Results of supervised readings and independent study presented by participants for group discussion and evaluation. History, direction, and substance of developments in the fields of organization and management.

## **Management Information Systems**

### **MIS 625 - Information Systems Analysis for Management**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Double Numbered with:

Analysis and design of management information systems in the context of cost and behaviorally effective managerial decision making. Structured design methods, systems controls, and documentation. Readings in selected areas required.

PREREQ: MBC 634

### **MIS 635 - The MIS Data Base**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Data base concepts and methods that enhance managerial decision making. Machine-user interface, data base model modularity, and integration. Criteria for file organization and data base management system selection.

PREREQ: MIS 625/ISM 741

### **MIS 645 - Implementing a Web-enabled Enterprise**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Double Numbered with: MIS 445

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 646 - Issues in Management Information Systems**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Issues and success factors in planning, design, development, evaluation, and use of computer based systems. Technical, managerial, and human factors influencing effective development and use of management information systems in organizations.

PREREQ: MBC 634

### **MIS 655 - Customer Relationship Management with Systems Applications and Products**

*Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring

Crosslisted with: MAR 655, SCM 655

Integration of marketing, supply-chain and technology management aspects of customer relationship management. Operational, analytical and collaborative processes supported by SAP's integrated software. Actual use of SAP software, including Business Data Warehouse, with best-practice processes.

### **MIS 745 - Decision Support Technologies**

*Martin J. Whitman School of Management*

3 credit(s) Irregularly

Conventional and innovative technologies for

## GRADUATE COURSE CATALOG

designing and implementing decision-making models. Advanced spreadsheet capabilities and add-on tools for genetic algorithms, neural networks, induced decision trees, and data mining.

### **MIS 746 - Management Information Systems Synthesis**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Use of cases to facilitate integration of topics in management information systems, blending practical subjective considerations using systems methodology while stressing critical success factors.

PREREQ: MIS 625/ISM 741

### **MIS 930 - Doctoral Seminar in Management Information Systems**

**Martin J. Whitman School of Management**

3 credit(s) Irregularly

Advanced topics and current research areas in management information systems.

Repeatable

## **Management of Technology**

### **MOT 711 - Innovation and Technology Management**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Focuses on innovation and technology management in different organizational contexts, e.g. manufacturing, e-commerce, and services. Models of innovation are examined as well as the involvement of key stakeholders. Major factors influencing innovation are examined.

## **Real Estate**

### **RES 600 - Selected Topics**

**Martin J. Whitman School of Management**

1-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **RES 631 - Real Estate Principles**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

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.

### **RES 642 - Real Estate Development**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Double Numbered with: RES 442

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.

### **RES 643 - Real Estate Capital Markets**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: FIN 643

Double Numbered with: RES 443

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 751 OR FIN 756

### **RES 662 - Real Estate Finance and Investment**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Real estate investment, finance, and valuation. Different measures of investment performance, impact of the financing decision, and various real estate financing techniques.

### **RES 672 - Case Studies in Real Estate Investment and Finance**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Crosslisted with: FIN 672

Double Numbered with: RES 472

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.

## **Supply Chain Management**

### **SCM 655 - Customer Relationship Management with Systems Applications and Products**

**Martin J. Whitman School of Management**

3 credit(s)

Crosslisted with: MAR 655, MIS 655

Integration of marketing, supply-chain and technology management aspects of customer relationship management. Operational, analytical and collaborative processes supported by SAP's integrated software. Actual use of SAP software, including Business Data Warehouse, with best-

practice processes.

### **SCM 656 - Project Management**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Elements of successful project management. The organization and planning necessary from requirements definition to project closure. Project management processes and techniques.

### **SCM 690 - Independent Study**

**Martin J. Whitman School of Management**

1-6 credit(s) Every semester

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. Repeatable

### **SCM 701 - Supply Chain and Logistics Management**

**Martin J. Whitman School of Management**

3 credit(s) Every semester

Quantitative and qualitative analysis of global supply chains, channels of distribution, and logistics networks. Extensive use of cases.

PREREQ: MBC 635, MBC 636, AND MBC 638

### **SCM 702 - Principles of Management Science**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Concepts and development of analytical model building as used in global supply chain decision. PREREQ: MBC 617 OR MBC 635 AND MBC 638

### **SCM 721 - Supply Chain Systems**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Theory and application of supply chain systems. Manufacturing resource planning, distribution requirements planning, electronic data interchange, tracking technologies, vendor managed inventory, collaborative planning, forecasting, and replenishment, emerging issues.

### **SCM 741 - Strategic Sourcing**

**Martin J. Whitman School of Management**

3 credit(s) At least 1x fall or spring

Impact of strategic sourcing on the success of businesses. Ethical, contractual, and legal issues faced by purchasing professionals. Strategic nature of purchasing, negotiating tactics, international sourcing and cutting-edge technology used in 'word class' purchasing departments.

PREREQ: MBC 635

## GRADUATE COURSE CATALOG

### SCM 755 - Lean Six Sigma

#### *Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring  
Double Numbered with: SCM 455  
Six sigma process-improvement approach focused on quality, reliability and value to customers. Skills include techniques from the define, measure, analyze, improve and control (DMAIC) approach. Lean concepts from supply chain management. Additional work required of graduate students.

### SCM 777 - Global Supply Chain Strategy

#### *Martin J. Whitman School of Management*

3 credit(s) At least 1x fall or spring  
Crosslisted with: MAR 777  
Topics include: design of global facility networks, containerization and logistical planning across borders, benefits and risks of outsourcing and offshoring while integrating financial and accounting-related matters such as exchange rates, duties, drawbacks and tax differentials. PREREQ: MBC 616, MBC 638

### SCM 960 - Doctoral Seminar in Supply Chain Management

#### *Martin J. Whitman School of Management*

3 credit(s) Irregularly  
Repeatable

### SCM 962 - Marketing and Supply Chain Models

#### *Martin J. Whitman School of Management*

3 credit(s) Irregularly  
Crosslisted with: MAR 962  
Statistical/econometric and management science modeling approaches to marketing/supply chain management problem solving.

### SCM 999 - Dissertation

#### *Martin J. Whitman School of Management*

0-15 credit(s) At least 1x fall or spring

## Martin J. Whitman School of Management Faculty

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

Karca Aral, Assistant Professor of Supply Chain Management  
Ph.D., INSEAD, 2014

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

Markus Broman, Assistant Professor of Finance  
Ph.D., York University, 2015

George R. Burman, Professor of Entrepreneurship  
Ph.D., University of Chicago, 1973

Donald Cardarelli, Assistant Professor of Management  
M.B.A., Syracuse University, 1989; Ph.D. (honorary), Nazareth College, 1997

Anna Chernobai, Associate Professor of Finance  
Ph.D., University of California at Santa Barbara, 2006

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

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

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, Professor of Finance  
Ph.D., Northwestern University, 1997

Burak Kazaz, Associate Professor of Supply Chain, Executive Director of The HH Franklin Center for Supply Chain Management  
Ph.D., Purdue University, 1997

Lisa Knych, Professor of Law and Public Policy  
J.D., Syracuse University, 1985

Roger Koppl, Professor of Finance  
Ph.D., Auburn University, 1988

Alexandra Kostakis, 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, 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

Lai Xu, Assistant Professor of Finance  
Ph.D., Duke University, 2014

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

## GRADUATE COURSE CATALOG

- 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, Professor of Accounting Practice  
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 Nicolaidis, 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
- Kofi Appiah Okyere, Professor of Accounting Practice  
Ph.D., University of Wisconsin-Madison
- John Hyung Park, Visiting Professor of Supply Chain  
Ph.D., Syracuse University, 2012
- Patrick Penfield, Professor of Supply Chain Practice, Director of Executive Programs  
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, 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
- Jim Seward, Visiting Associate Professor of Finance  
Ph.D., University of Wisconsin-Madison, 1987
- Ravi Shukla, Chair and 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, 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
- Lynne Vincent, Assistant Professor of Management  
Ph.D., Cornell University, 2013
- Padmal Vitharana, Associate Professor of Management Information Systems  
Ph.D., University of Wisconsin-Milwaukee, 2000
- Ginger Wagner, Professor of Accounting Practice  
M.B.A., Syracuse University, 2003
- William J. Walsh, Professor of Accounting Practice, Director of Joseph I. Lubin School of Accounting  
M.B.A., Syracuse University, 1989
- Kenneth Walsleben, Professor of Entrepreneurial Practice  
BA, Syracuse University, 1983
- 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
- Trent Williams, Assistant Professor of Entrepreneurship  
Ph.D. Indiana University, 2014
- Raymond M. Wimer, Professor of Retail Practice  
M.S., Syracuse University, 1998
- David Wo, Visiting Assistant Professor of Management  
Ph.D., University of Central Florida, 2015
- Zhengping Wu, Associate Professor of Supply Chain Management  
Ph.D., Purdue University, 2003
- Yildiray Yildirim, Associate Professor of Finance, Director of Kuhn Real Estate Center  
Ph.D., Cornell University
- Pierre Yourougou, Clinical Associate Professor of Finance  
Ph.D., New York University, 1996
- Joyce Zadzilka, Professor of Accounting Practice  
M.B.A., Syracuse University, 1996



# Maxwell School of Citizenship and Public Affairs

James B. Steinberg, Dean  
200 Eggers Hall  
www.maxwell.syr.edu/

## About the School

James B. Steinberg, Dean  
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 2,000 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.

## Graduate Degrees

The School offers master's (M.A.) and doctoral (Ph.D.) degrees in anthropology, economics, geography, history, political science, and sociology, as well as Public Administration, PhD and Social Science, PhD. In addition, four professional degrees are offered: the Public Administration, MPA, the International Relations, MA, and, for mid-career executives, the Public Administration, MPA and the International Relations, MA.

## 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; in addition to, Leaders for Democracy Fellows, and Edward R. Murrow Fellows from the Middle East.

## Centers and Institutes

Each department and program in the Maxwell School gives research a central place in its work. Graduate students are included as partners in intellectual activities and in contacts with the public service.

Many faculty members participate in one or more of eight research centers and institutes that provide valuable resources to faculty clustered around significant research topics. Among the research centers at the Maxwell School are the Aging Studies Institute, Program for the Advancement of Research on Conflict and Collaboration, the Center for Environmental Policy and Administration, the Center for Policy Research, and the Institute for National Security and Counterterrorism.

Also serving the Maxwell community as clearinghouses for major domestic and international issues are the School's two institutes: the Alan K. Campbell Public Affairs Institute and the Moynihan Institute of Global Affairs. Through the involvement of visiting scholars, reflective practitioners, and the community, the institutes contribute to understanding, cooperation, and ongoing dialogue in the areas of governance, law and politics, and citizenship in the United States and interdisciplinary issues of global concern. An Institute for the Study of the Judiciary, Politics, and the Media enjoys input from three different schools - The College of Law, The Maxwell School and the S.I. Newhouse School of Public Communications.

Students interested in these centers and institutes should contact faculty in their departments with affiliations in respective centers and institutes. All the centers and institutes welcome interested students who want to learn the craft of research and work and write with faculty.

## Aging Studies Institute

Director Janet Wilmoth  
314 Lyman Hall

ASI is a collaborative initiative of the Maxwell School of Citizenship & Public Affairs and the David B. Falk School of Sport and Human Dynamics. Its mission is to coordinate and promote aging-related research, training, and outreach at Syracuse University. With over 30 faculty affiliates from more than a dozen departments, ASI provides multi-disciplinary research and education that is relevant to almost every academic discipline on campus. ASI is committed to developing the next generation of

scholars and practitioners. It provides education and training opportunities to undergraduate students and faculty members at Syracuse University. ASI supports the undergraduate minor in Gerontology, where students are exposed to a variety of theoretical perspectives, research methodologies, and policy initiatives. It also coordinates and promotes a range of age-related graduate-level coursework that is offered by various SU departments. In addition, ASI hosts the biennial gerontology education workshop for undergraduate- and graduate- level instructors interested in proposing or strengthening aging-related courses.

## Center for Environmental Policy and Administration (nondegree)

Director Peter Wilcoxon, 419 Crouse-Hinds Hall,  
315-443-1890.

Faculty Jacob Bendix, A.H. Peter Castro, W. Henry Lambright, Allan C. Mazur, John G. McPeak, Susan W. Millar, Thomas Perreault, David C. Popp, Sarah B. Pralle, Jane M. Read, Robert M. Wilson

Staff M. Rizzo

The Center for Environmental Policy and Administration (CEPA) is an interdisciplinary center within Syracuse University's Maxwell School of Citizenship and Public Affairs. CEPA explores environmental issues from an integrated perspective that considers technical, social, and humanistic aspects of environmental matters and prepares leaders who can blend those dimensions as they confront the world's complex environmental challenges. It brings together faculty and graduate students from a range of Maxwell departments, including anthropology, economics, geography, political science, public administration, public affairs, and sociology.

Recent work by CEPA members has examined a wide range of topics, including climate change, international trade and the environment, technology and environmental policy, environmental governance and management, environmental issues in developing countries, land use changes, biodiversity conservation, energy policy, the role of environmental advocacy groups, and public attitudes toward the environment.

CEPA has close working relationships with the Center for Technology and Information Policy, the Center for Policy Research, and with SU faculty from outside Maxwell, particularly those in biology, earth sciences, and the colleges of law and engineering. Also, CEPA members work with faculty at the nearby SUNY College of Environmental Science and Forestry (ESF). In addition, CEPA has strong links to the SU/ESF EnSPIRE initiative on interdisciplinary environmental research; to Maxwell's Environmental Finance Center;

## GRADUATE COURSE CATALOG

and to the Syracuse Center of Excellence in Environmental and Energy Systems. [cepa.maxwell.syr.edu/](http://cepa.maxwell.syr.edu/)

### Center for Policy Research (nondegree)

426 Eggers Hall, 315-443-3114

Director Leonard Lopoo

Associate Director for Metropolitan Studies

Program John Yinger

Associate Director for Budget and Administration

Margaret Austin

Faculty: Badi Baltagi, Robert Bifulco, Leonard Burman, Thomas Dennison, Alfonso Flores-Lagunes, Sarah Hammersma, William Horrace, Yilin Hou, Chihwa (Duke) Kao, Jeffrey Kubik, Yoonseok Lee, Leonard Lopoo, Amy Lutz, Yingyi Ma, Jerry Miner, Cynthia Morrow, Jan Ondrich, John Palmer, David Popp, Stuart Rosenthal, Ross Rubenstein, Rebecca Schewe, Amy Ellen Schwartz, Perry Singleton, Michael Wasylenko, Pete Wilcoxon, Janet Wilmoth, Douglas Wolf, John Yinger

The Maxwell School Center for Policy Research (CPR) conducts a broad range of interdisciplinary research and other activities related to public policy, involving graduate students as assistants and junior colleagues. Faculty consult regularly with government agencies and other institutions concerned with the issues they are studying.

The Center includes faculty from several departments within the Maxwell School, mainly Economics, Public Administration and International Affairs, and Sociology. This collection of specialists brings a depth of experience and skill to research and offers students a wealth of opportunity for discussion and advice on their own research, as well as the possibility of research assistantships on projects directed by the faculty. The Center provides a base for visiting scholars from the United States and abroad. CPR also publishes working papers and Policy Briefs, which are available on the CPR website.

### Daniel Patrick Moynihan Institute of Global Affairs (nondegree)

Director Margaret G. Hermann, 346 Eggers Hall, 315-443-4022; Fax: 315-443-9085.

The Daniel Patrick Moynihan Institute of Global Affairs facilitates interaction among faculty and graduate students across the Maxwell School who are exploring the issues raised by an increasingly interdependent world composed of diverse cultures, economies, and political systems. With its interdisciplinary orientation, the institute encourages research that broadens our knowledge about how to improve the quality of governance and citizenship beyond the borders of the United

States. An important goal involves translating knowledge into practice by arranging for dialogue and collaboration between institute faculty and students and visiting scholars and practitioners.

The institute fulfills its mission by supporting research projects, sponsoring lecture series, providing research fellowships and internship opportunities to graduate students, publishing the products of its working groups, and organizing conferences, credit-bearing seminars, and certificates of graduate study. Current activities take place around both thematic and regional foci. Thematic initiatives include the Transnational Non-Governmental Organization theme, which has as its focus defining what constitutes an effective civil society, understanding the challenges facing civil society organizations that work in a transnational context, integrating the various disciplinary perspectives on civil society, non-governmental organizations, and social movements, and not-for-profit organizations and determining what kinds of skills are needed to lead such endeavors; Transnational Mobility, which focuses on the causes and consequences of the transnational movement of ideas, people, capital, and information; and Transnational Human Security, which centers around issues related to what has been described as human or societal security in contrast to national security.

The Moynihan Institute is also host to six regional projects: the South Asia Center, the Center for European Studies, Maxwell's European Union Center, the program on Latin America and the Caribbean, the Upstate New York Consortium for Middle Eastern Studies, and the East Asia program. The regional centers provide the Syracuse University student body with chances to learn more about the world in which they live and will work, facilitating students gaining education, research, language, and internship experiences in these various regions. The centers also provide curriculum development grants for faculty to create new courses on regional topics and monies to hire language instructors in less familiar languages such as Turkish and Hindi. [www.maxwell.syr.edu/moynihan.aspx](http://www.maxwell.syr.edu/moynihan.aspx)

### Institute for National Security and Counterterrorism

Director, William C. Banks, Dineen Hall, Suite 300, 315-443-2284

The Institute for National Security and Counterterrorism (INSCT) at Syracuse University was established at the College of Law in 2003 through the vision of Professor William C. Banks, with the support of Dean Hannah R. Arterian. Beginning in the 2004-2005 academic year, the Maxwell School of Citizenship & Public Affairs, with the support of Dean Mitchel B. Wallerstein, joined the College of Law in sponsoring the

Institute. The Maxwell School and the College of Law support a systematic, interdisciplinary approach in addressing important questions of law and policy related to national and international security and counterterrorism.

INSCT is dedicated to interdisciplinary and innovative research, teaching, and public service. Drawing upon the expertise of affiliated faculty, INSCT's work addresses key national and international challenges pertaining to security, terrorism and counterterrorism, post-conflict reconstruction, and community resilience. INSCT's faculty and research fellows strive to deliver cutting-edge scholarship and a first-class educational experience for students and professionals. Through structured guidance and support, INSCT faculty and staff help advance student-based research and analytical proficiency. INSCT also promotes innovative educational programs and student engagement in advanced coursework by way of its Certificates of Advanced Studies (CAS), currently offered in the fields of security, counterterrorism, and postconflict reconstruction.

INSCT places a special emphasis on forming partnerships with national and international academic and non-academic institutes, as well as private individuals, in order to advance common research and project goals. Research and other projects are also often conducted on behalf of or in consultation with governmental agencies, municipalities, and other public entities which help facilitate a direct public service [insct.syr.edu](http://insct.syr.edu)

### Program for the Advancement of Research on Conflict and Collaboration (nondegree)

Director Catherine Gerard, 400 Eggers Hall, 315-443-2367.

Faculty More than 60 Syracuse University faculty members are associates of PARCC.

PARCC is an interdisciplinary program devoted to advancing the theory and practice of the analysis of conflict, the resolution of conflict, collaborative problem solving, and collaborative governance. The primary goals of the program are to develop knowledge about the context and stages of different conflicts and, on that basis, to assess and teach alternate methods of conflict resolution. A special interest is the emergence of collaborative problem solving as a critical skill set for the public sector. The diverse backgrounds of PARCC faculty members and graduate students reflect the program's emphasis on interdisciplinary research and theory building. They are drawn from the departments of anthropology, geography, history, international relations, political science, public administration, social science, and sociology and from the schools of law, education,

## GRADUATE COURSE CATALOG

public communications, management, and human services and visual and performing arts..

The research interests of PARCC associates may be characterized by a series of questions: What are the significant differences and similarities of various kinds of conflicts? How can theory be made applicable to the work of practitioners and the experience of practitioners contribute to the refinement of theory? How can governments work more collaboratively with citizens? What are the appropriate strategies at different stages of conflicts? How can intractable conflicts be moved to the stage where de-escalation can take place? What kinds of conflict resolution and collaborative methods are effective for different circumstances?

Program associates are engaged in studies that relate to collaborative governance, collaborative public management, foreign policy decision making during crises, cultural aspects of conflict, geo-political ideologies, ethnic conflicts, nonviolent means of protest, gender and conflict, community organizing efforts, alternative dispute resolution methods, conflict transformation, interpersonal violence, prevention of disputes through increased public participation in environmental matters, and de-escalating initiatives and peacemaking in Arab-Israeli relations. Other activities of the program include a theory-building seminar, working groups organized around specific research topics, a conflict forum speaker series, and conferences focused on conflict related topics. PARCC is a base for graduate studies in collaborative governance, collaborative public management, conflict analysis and conflict resolution. Twelve-credit Certificates of Advanced Study (CAS) in conflict resolution are awarded to students who meet the established certificate requirements as they complete a graduate degree from SU or the State University of New York College of Environmental Science and Forestry. Mid-career managers may complete the certificate as an independent graduate program.

### Global Programs

Most students pursuing the International Relations, MA 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.

### Financial Aid

Academic departments and programs each have an array of financial aid, including University Fellowships, graduate assistantships, tuition scholarships, and grants-in-aid. Graduate admissions officers in each graduate program allocate financial aid based largely on merit.

Doctoral students generally receive tuition, stipends and health insurance coverage in

exchange for teaching or research services. Some students receive University Fellowships.

There is more limited funding for master's students. They are eligible for financial awards, including fellowships, assistantships (partial or full), partial tuition scholarships, and grants-in-aid.

### Anthropology Overview

209 Maxwell Hall  
315-443-2200

Chair John S. Burdick

Faculty Douglas V. Armstrong, Hans C. Buechler, John S. Burdick, A.H. Peter Castro, Christopher R. DeCorse, Azra Hromadzic, Shannon A. Novak, Deborah Pellow, Guido Pezzarossi, Lars Rodseth, Robert A. Rubinstein, Maureen Trudelle Schwarz, Theresa A. Singleton, John Marshall Townsend, Cecilia Van Hollen, Susan S. Wadley

Courtesy Appointments: Tom Brutsaert, Gareth J. Fisher, Ann Grodzins Gold, Sandra Lane and Rebecca Peters

Anthropology at Syracuse University is oriented primarily toward sociocultural studies and historical archaeology, with emphases on applied and interpretive research. As a department within the Maxwell School, the graduate anthropology program offers dual degree tracks that include public affairs or public policy.

Department strengths include language and power, religious systems, medical anthropology, the social use of terrestrial space, local-level globalization, culture change, indigenous environmentalism, and social movements. The department offers a strong focus on the African diaspora within its historical archaeology program. Interdisciplinary ties within the Maxwell School, with SUNY College of Environmental Science and Forestry, and with SUNY Upstate Medical University enhance offerings in environmental topics, historical preservation, policy planning, international relations, and health-related subjects.

Graduate certificates are available for qualifying anthropology graduates in Women's Studies, South Asian Studies, Conflict Resolution, Cultural Heritage Preservation, Middle Eastern Affairs, and Latin American Studies.

Anthropology is primarily a Ph.D. program. A master's degree may be earned as a step toward the doctorate. While some graduate students are self-funded, most are supported with teaching assistantships and fellowships.

Anthropology graduate students comprise a multiethnic international community. More than half are women. The department is sufficiently large to provide focused breadth, yet small enough to encourage graduate students to work closely with faculty mentors.

The department participates in the University-wide Future Professoriate Project, which trains graduate students for college teaching and otherwise prepares them for academic and professional careers. Anthropology graduates who have elected to pursue non-academic careers have found employment in governmental agencies and in NGOs.

The department of anthropology at Syracuse University encourages students from various backgrounds to seek admittance. Not all entering students have a degree in anthropology; some enter the program with backgrounds in public health, English literature, history, psychology, journalism, or biology.

Graduate students are expected to secure outside funding to help support their doctoral research. The department has a limited endowment, the Claudia De Lys Scholarship in Cultural Anthropology, which provides modest support for a few students annually. A formal course in grant writing has proved helpful to many graduates in obtaining funding.

The University offers nine-month teaching and research assistantships. Outstanding students are eligible for University Fellowships, and the Dean's Summer Assistantship. U.S. citizens interested in studying South Asia are eligible for National Resource Fellowships through the SU South Asia Center.

A few doctoral projects are the following:

The nature of childhood in a 19th century abolitionist congregation;

Gender and land movements in Brazil;

Resettlement experiences of Bosnian refugees in the United States;

Sexual minorities and political activism in Pakistan;

The politics of public space in India;

Deconstructing culture, religion, and class among Irish tenant farmers;

The archaeology of community, ritual, and politics in 17th c. Maryland; and

Social networks and plantation slavery from colonial to modern in Brazil.

### Economics Department Overview

Chair William Horrace, 110 Eggers Hall, 315-443-3612

Faculty Elizabeth Ashby, Badi Baltagi, Leonard E. Burman, Kristina Buzard, Donald H. Dutkowsky, Gary V. Engelhardt, Jerry Evensky, William Horrace, Hugo Jales, Chihwa (Duke) Kao, Leyla Karakas, Jerry S. Kelly, Jeffrey D. Kubik, Derek Laing,

## GRADUATE COURSE CATALOG

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, J. David Richardson, Stuart S. Rosenthal, Abdulaziz Shifa, Perry Singleton, A. Dale Tussing, Michael Wasylenko, Peter J. Wilcoxon, John M. Yinger

The economics department offers separate programs leading to the M.A. and the Ph.D. degrees. The department's faculty members have an orientation toward applied and policy-related economics that is built on a strong foundation of economic theory and statistical and econometric methods. The department teaches about 3,000 students per year, has approximately 40 doctoral students in residence, and enrolls 30-35 master's students at various stages of study.

The department chooses to be selective in its acceptance of students to its programs and as a result has a low graduate student-to-faculty ratio. The average number of students in an entering Ph.D. class ranges from 8 to 12 with a somewhat larger number entering the M.A. program. This small size allows for more interaction between faculty and students than is found in other programs with larger numbers of students. The department enjoys strong loyalty from its many distinguished alumni, who have positions in academia, business, and government.

## Geography Department Overview

Chair Jamie Winders  
144 Eggers Hall  
315-443-2605

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

The Syracuse University Department of Geography is an integral component of the Maxwell School and of the College of Arts and Sciences. Interdisciplinary work has always been a particular strength. Specifically, in addition to our expertise in cultural, economic, environmental, historical, physical, and urban geography, and in geographic information and analysis, we maintain active links to several Maxwell programs, including the Center for Environmental Policy and Administration and the Moynihan Institute for Global Affairs. Strong links also exist with earth sciences, civil and environmental engineering, the School of Architecture, and with the SUNY School of Environmental Science and Forestry. Finally, the department has long valued investigating geographical processes in a wide array of regions,

places, and landscapes. Recent graduate students have conducted field research in the Caribbean, Latin America, South Asia and Europe, as well as in the U.S. and Canada.

The prospective student will find opportunities to develop an array of research skills and to study and conduct research with the faculty in the following specializations:

**Culture, Justice, and Urban Space:** Syracuse geographers join the study of urban landscapes, politics, and processes to broader struggles for racial and gender equality, social justice, and political transformation. Through projects that range from constructing urban geographies of memory to examining the relationship between immigration and changing racial formations in cities to analyzing struggles over and for urban public space and the right to the city, our faculty draw on a variety of methodological and theoretical perspectives, particularly social theory, to interrogate the production of urban spaces and experiences.

**Environmental Science and Landscape Dynamics:** Physical geographers at Syracuse University focus on spatial and temporal aspects of environmental science, with the aim of clarifying the dynamic processes that shape the earth's landscapes. Faculty conduct research in four broad areas: human and natural disturbance impacts on riparian habitats and forest ecosystems; development of field and analytic techniques for examining recent and Pleistocene environmental change; processes and implications of sediment transport in rivers; and climate - land-surface interactions. Graduate students have use of our newly renovated Physical Geography Research Laboratory, which is equipped for a variety of soil and sediment analyses, and includes a Sedigraph 5120 for particle size analysis.

**Gender, Identity and Citizenship:** At Syracuse, geographers study gendered spaces of everyday life as sites of oppression and resistance where identities are made and re-made across the landscape. We examine the gendering of geopolitical relationships that structure human migration, labor practices in the global economy, gender and the city, memory, social justice, historical geography, feminist methodologies, and other critical standpoints from which to study men's and women's places in the world. Central to each of these themes is a re-working of the concept of citizenship.

**Geographic Information Technology:** Faculty in the Geospatial Information, Analysis and Modeling focus have a range of research and teaching interests, including cartography, applications and methods in geographic information technologies (i.e., geographic information systems, computer cartography, remote sensing, multimedia), spatial analysis and modeling, and hydrological and ecosystem modeling. Faculty and graduate

students conduct research on a range of key societal and environmental issues, with recent topics including geospatial surveillance technologies; modeling channel migration; applications of satellite remote sensing to studies of tropical forest structure, demography, and certified forestry; and GIS mapping of hunger and related issues in the City of Syracuse. Graduate students train and conduct research in both our Geographic Information and Analysis Laboratory and our Integrated Spatial Analysis Laboratory, which was funded by a Major Research Instrumentation grant from NSF.

**Globalization and Regional Development:** At Syracuse, geographers research the relationship between flows and networks of activity, interaction and power that are producing an increasingly interconnected world, and the historical and geographical contexts within which the lives of people, and places, are being transformed. By focusing on globalization processes, we examine the complex and often contradictory mechanisms through which flows of capital, people, information and knowledge are sped-up, spread-out and made more intensive. By focusing on development, we pay particular attention to the inequalities created by these flows among groups, and in spaces and places that have been historically marginalized or subject to control within national and international systems.

**Nature, Society, Sustainability:** Nature-society scholarship at Syracuse University includes land use and land cover change in tropical forests using remotely sensed data, environmental history of western North America, the political ecology of rural livelihoods in Andean South America, and the environmental impacts of the mining industry. Syracuse geographers also study sustainable development, nature conservation and protected areas, forest fire dynamics and management, environmental mapping and its societal impacts, media coverage of environmental issues, and human impacts on climate, vegetation and landform processes.

**Political Economy:** Syracuse geographers understand political economy to be a social relationship. This social relationship is deeply geographical: our research starts from the understanding that social relations, social struggles, and social justice are all intricately related to the ways that political-economic processes are imbricated in and transformed through spatial relationships. In addition to understanding the relationship between political economy and geography, we seek to understand the relationship political economy and gender; political economy and labor; political economy and the restructuring of places and regions; political economy and culture. In all of these we want to understand how space, place, region, and scale structure and restructure political economic processes, even as political economic processes

## GRADUATE COURSE CATALOG

restructure space, place, region, and scale.

Within the framework of the principal clusters, students pursue individually designed programs, assisted by their advisory committee. The goal is to maintain and enhance an open intellectual environment with continuous interaction between graduate students and departmental faculty. In support of this, distinguished scholars and professionals are regularly brought to Syracuse for seminars, lectures and symposia.

The department also participates in a variety of interdisciplinary programs in the Maxwell School and maintains strong links with other parts of the campus, including the State University of New York College of Environmental Science and Forestry. Normally the department has about 30 resident graduate students.

Each student has an advisory committee, consisting of the principal advisor and one or more faculty members. The committee advises the student and regularly evaluates progress toward the M.A. or Ph.D. degree.

## History Department Overview

Chair Michael Ebner  
Director of Graduate Studies Susan Branson  
145 Eggers Hall  
315-443-2210

Faculty Alan Allport, David H. Bennett, 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, Ralph Ketcham, 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, James Roger Sharp, Junko Takeda, Margaret Susan Thompson, William M. Wiecek

The history department has been granting M.A. and Ph.D. degrees since 1871. As part of the College of Arts and Sciences and, since 1924, the Maxwell School, the department has links to both the humanities and social science programs of the University.

The early development of the department received special impetus with the acquisition of the personal library of about 20,000 volumes of the great German historian Leopold von Ranke.

Today it is one of the major European history collections in the United States. There are also substantial collections of primary materials dealing with the history of East Africa, the United Kingdom, and the United States.

A major emphasis in the M.A. and Ph.D. programs

is the development of skills necessary to pursue original research. The training in both programs is valuable for careers in business, law, government, the media, archival work, and education. The department has placed its recipients of graduate degrees in state and federal research positions, in local historical agencies, in libraries and archives, and in business, as well as in colleges and universities across the nation and abroad.

## Political Science Department Overview

Mehrzaad Boroujerdi, Chair  
100 Eggers Hall  
315-443-2416

Faculty: Lamis Abdelaaty, Kristi J. Andersen, Michael Barkun, Hossein Bashiriyyeh, Kenneth Baynes, James P. Bennett, G. Matthew Bonham, Mehrzaad Boroujerdi, Keith J. Bybee, Horace Campbell, Matthew R. Cleary, Elizabeth F. Cohen, Francine D'Amico, Renée de Nevers, David Kwame Dixon, Gavan Duffy, Colin Elman, Miriam Fendius Elman, Margarita Estévez-Abe, Christopher G. Faricy, Shana Gadarian, Dimitar D. Gueorguiev, Petra Hejnova, Margaret Hermann, Seth Jolly, Thomas M. Keck, Ralph Ketcham, Audie Klotz, W. Henry Lambright, Robert D. McClure, Daniel McDowell, Glyn Morgan, Spencer Piston, Sarah B. Pralle, Grant D. Reeher, Mark Rupert, Anoop Sadanandan, S.N. Sangmpam, Yüksel Sezgin, Jeffrey M. Stonecash, Jennifer Stromer-Galley, Brian D. Taylor, Laurence Thomas, Danielle M. Thomsen, Margaret Susan Thompson, Stuart J. Thorson

Established in 1924, the department of political science is a national leader in graduate training.

The curriculum is divided into seven fields: American politics, international relations, comparative politics, political theory, public administration & policy, law & courts and security studies. Master's students are not bound by any specific field requirements. Ph.D. candidates must declare a major and a minor field or two major fields; they must take at least four courses in each major field and three courses in a minor field. Most Ph.D. students in political science receive financial aid, most commonly department assistantships. Students may also be funded by SU fellowships.

## Public Administration and International Affairs Department Overview

Chair and Associate Dean David Van Slyke, 215

Eggers Hall, 315-443-4000

Vice Chair Renée de Nevers, 215 Eggers Hall, 315-443-4000

Faculty Shena Ashley, William C. Banks, Catherine A. Bertini, Robert Bifulco, Edwin A. Bock, Stuart Brown, Leonard E. Burman, Robert Christen, Rafael Fernández de Castro, Renée de Nevers, Thomas H. Dennison, Vernon L. Greene, Sarah Hamersma, Yilin Hou, Soonhee Kim, Sharon N. Kioko, W. Henry Lambright, Jesse D. Lecy, Leonard Lopoo, John G. McPeak, Ines A. Mergel, Robert Murrett, Tina Nabatchi, John L. Palmer, Rebecca Peters, David C. Popp, Sabina Schnell, Larry Schroeder, Amy Ellen Schwartz, David Van Slyke, Peter J. Wilcoxon, Douglas A. Wolf, John M. Yinger

The Department of Public Administration and International Affairs offers management and policy coursework that explores a broad range of topics underlying today's global challenges. Modern society demands imaginative and sensitive leadership, and highly skilled public managers and policy analysts. The faculty in this department educate students for careers that serve the public good across sectors, fields and nations.

Inaugurated in 1924, under the leadership of Dean William E. Mosher, Maxwell's public administration program is the oldest graduate program of its kind in the United States. Since its founding, the program has exercised major influence in the growth and development of the field of public administration and policy. The school's first dean was instrumental in the founding of the American Society for Public Administration (ASPA), serving as its first president, and the Public Administration Review was founded at Maxwell in 1937.

Since then, the department has expanded its scope to consider the political, economic, and social context of public administration and international affairs broadly, offering degree programs aimed at achieving substantial competency in institutional design, policy analysis, management and administrative techniques, policy implementation and collaborative governance. The programs also provide experiential learning opportunities that ensure graduates are able to effectively apply core skills to management and policy issues.

More than 8,000 alumni of the department's programs are employed in federal, state, and local governments, non-profit agencies, foundations, private firms, and international organizations and NGOs worldwide. They are leaders across all these sectors, working on public policy and management issues, both domestic and international in focus. Graduates of the Ph.D. program are well-represented on the faculties of most other leading schools that offer graduate education in public administration and policy.

## GRADUATE COURSE CATALOG

### Sociology Department Overview

Chair Madonna Harrington Meyer, 302 Maxwell Hall, 315-443-2346, mhm@syr.edu

Graduate Director Andrew London, anlondon@maxwell.syr.edu

Faculty, Dawn Dow, Cecilia A. Green, Madonna Harrington Meyer, Prema Kurien, Andrew S. London, Amy Lutz, Yingyi Ma, Jennifer Montez, Jackie Orr, Arthur Paris, Gretchen Purser, Rebecca Schewe, Merrill Silverstein, Janet Wilmoth

Affiliated Faculty, Peter Blanck, Linda Carty, Richard Loder, Chandra Talpade Mohanty, David A. Sonnenfeld

Global and inclusive in perspective, the Sociology curriculum has been designed to reflect on-going changes in society and the discipline. The graduate program offers training in sociological issues, theory, and practice. It also provides opportunities for joint degrees or collaborative study with many departments and multidisciplinary research centers at the Maxwell School and in other schools and colleges across the campus. Students may also focus on specific geographical areas, including the United States, Asia, Africa, and South and Central America.

A core theory course incorporates classical foundations of Sociology, as well as more contemporary sociological theory. The Department's strength lies in its teaching and research in four major areas: (1) globalization, immigration, transnational studies; (2) health, aging, life course; (3) family, education, work; (4) power, capital, culture. After doctoral students complete the core theory, qualitative and quantitative research methods courses, they pursue advanced study, and develop one or more substantive areas of specialization. This portion of the program is highly individualized and includes some combination of advanced seminars, directed studies, apprenticeships, and participation in Maxwell School programs and research centers.

Although Sociology offers M.A. and Ph.D. degrees, the program is structured primarily toward students who are pursuing a doctoral degree. The M.A. requires 30 credits, including: 12 credits of theory, methods, and statistics; 6 credits of advanced Sociology seminars; and 12 additional credits of graduate courses in Sociology or related fields. A master's thesis option may be substituted for six hours of graduate credit.

The Sociology Department typically admits five to seven new graduate students each year. This small class size allows students to develop a close relationship with faculty members and extensive involvement in departmental activities. Graduate students serve on departmental committees. All graduate students are encouraged to work closely

with faculty advisors to develop their own courses of study.

Students are encouraged to develop and present their research at professional meetings and to publish in journals of the discipline, as well as relevant specialty and interdisciplinary journals. Financial support for conference participation is available. Joint publication with faculty members is also encouraged, as is participation at the Maxwell School's multidisciplinary research centers.

In addition to scholarly research activity, the Sociology Department stresses teacher training. It is an active participant in the University's Future Professoriate Program, which helps students develop their teaching skills in a heavily mentored and supportive environment. Most graduates obtain academic positions in teaching and research colleges and universities.

### Master's

#### Anthropology, MA

The master of arts degree signifies an important step in a student's scholarly development. The requirements for an M.A. degree in anthropology at Syracuse University emphasize comprehensive understanding of the discipline and the mutual articulation of its constituent subfields.

Required coursework and the qualifying examination reflect the department's intent to expose students to the breadth of anthropology prior to their engaging in more narrowly defined scholarly studies and doctoral research.

#### 1. Credit and core courses requirements:

30 graduate credits that include at least four core courses of which two form a sequence within either the cultural or the archaeological subdiscipline (ANT 611-ANT 711 for cultural students; ANT 641-ANT 741 for archeology students) and at least two core courses in other subdisciplines.

The core courses are:

**ANT 611 - History of Anthropological Theory 3 credit(s)**

**ANT 612 - Ethnology 3 credit(s)**

**ANT 631 - Method and Theory in Biological Anthropology 3 credit(s)**

**ANT 641 - Anthropological Archaeology 3 credit(s)**

**ANT 672 - Language, Culture, and Society 3 credit(s)**

**ANT 711 - Current Anthropological Theory 3 credit(s)**

**ANT 741 - Archaeological Theory 3 credit(s)**

#### Additional Information

Students are expected to complete core courses and qualifying examinations within the first two years in residence.

#### 2. Qualifying examination:

Successful completion of the qualifying examinations in History of Anthropological Theory and Ethnography for cultural students and Archaeological Method and Theory for archeology students.

#### 3. Writing requirement:

Students who do not continue beyond the master's level are required to submit a master's paper, which is a significant piece of work on a subject of the student's choosing, and approved by the advisor. Minimally, it should demonstrate original thinking and knowledge of the literature on a given area, topic, or issue. See "Position Papers" for the writing requirements leading to a doctoral degree.

#### 4. Tools and methods requirement:

Cultural students choose either:

**ANT 681 - Ethnographic Techniques 3 credit(s)** or

**ANT 684 - Social Movement Research Methods 3 credit(s)**

Archeology students choose one of the following:

**ANT 642 - Methods in Archaeology 3 credit(s)** or

**ANT 644 - Laboratory Analysis in Archaeology 3 credit(s)**

Archaeological Field training or Field Program

Archeology students must also fulfill a field training course (ANT 643 - Advanced Field Methods in Archaeology) or complete an accredited archaeological field program.

#### 5. Advisor and master's committee:

Students are expected to select an advisor by

## GRADUATE COURSE CATALOG

December 15 of their second year in residence. (The graduate director can serve as an interim advisor until an advisor is selected.)

### Documentary Film and History, MA

#### Contact:

Richard Breyer, Co-Director  
315-443-9249, ribreyer@syr.edu

Gladys McCormick, Co-Director  
315-443-9325, gmccormi@maxwell.syr.edu

#### Faculty

Richard L. Breyer, Richard Dubin, Tula Goenka, Sharon R. Hollenback, Norman A. Kutcher, Patricia H. Longstaff, Gladys McCormick, , Evan Smith, Junko Takeda, Margaret Susan Thompson, Robert J. Thompson, Donald C. Torrance

The documentary film and history master's program is a cross-disciplinary program with the Maxwell School of Citizenship and Public Affairs. It is designed for those interested in studying the documentary from various points of view—production, distribution, new media, applications to education at all levels. This master's degree also offers students the opportunity to deepen their understanding of history at the same time that they acquire the practical skills of the filmmaker's craft. Documentary film and history students prepare to work as writers, editors, directors, designers, and executives at independent production companies and organizations, such as The History Channel, Learning Channel, and Public Broadcasting Stations. Graduates also teach media and history.

#### Program Requirements

The program's curriculum stresses three general areas of study: writing and production, research, distribution and funding of documentaries and other nonfiction media.

Students in the program begin their studies with an intensive summer experience in July and finish with an internship and production of a documentary the following summer.

This 38-credit program leads to a Master of Arts (M.A.) in Documentary Film and History.

#### Requirements

**COM 670 - Experience Credit 1-6 credit(s)**

**DFH 610 - Documentary Production Research 1 credit(s)**

**DFH 693 - Oral History Workshop 3 credit(s)**

**DFH 695 - Historical Narratives and Interpretation 3 credit(s)**

HST elective Various topics (HST 500-997)

HST elective Various topics (HST 500-997)

**HST 693 - Oral History Workshop 3 credit(s)**

**HST 695 - Historical Narratives and Interpretation 3 credit(s)**

**HST 802 - Modes of Analysis in History 3 credit(s)**

**TRF 611 - Dramatic Writing for Television and Film 3 credit(s)**

**TRF 637 - Telecommunications Law&Policy 3 credit(s)**

**TRF 650 - Advanced Practice: Special Projects 1-3 credit(s)**

**TRF 655 - Screenwriting and Production Workshop 3 credit(s)**

**TRF 659 - Documentary Production 3 credit(s)**

TRF elective Various Topics (TRF 500-TRF 997)

Total: 38 Credits

### Economics and International Relations, MA

#### Program Requirements

The Maxwell School offers a joint Economics and International Relations option which allows you to earn two MA degrees—in International Relations and in Economics—in only two years. You will be expected to complete challenging courses in economic theory and econometrics, as well as the core courses in International Relations.

Students will learn applied quantitative techniques that can be employed in a variety of careers in government, the private sector or with non-governmental organizations. Areas of concentration include econometrics, economic development, international economics, urban and regional economics, and finance.

This career field offers a unique opportunity to marry private-sector capital concerns with delicate political and social issues. As banks and business continue to globalize their services and emerging markets continue to influence developed financial markets, an understanding of how internationalization influences interest rates, currency and securities values, and local economies is crucial.

### Economics, MA

The economics department offers a variety of graduate courses toward the completion of a Master of Arts degree.

Applicants to the M.A. program are expected to submit scores from the Graduate Record Examinations and prior coursework that demonstrates an aptitude for graduate study in economics. Students often have strong undergraduate training in economics, but some students have a strong quantitative background and little training in economics. Students whose native language is not English are also required to take the TOEFL examination. Admission preference is given to students with TOEFL scores in the range of 600 and above or ITOTL scores of 100 and above. Graduate assistantships and

University Fellowships are generally not awarded to students studying for the M.A. degree.

Courses available on a regular basis include microeconomic and macroeconomic theory, mathematical economics, statistics, econometrics, public finance, economic development, international trade and finance, economic dimensions of global power and financial econometrics. A student with strong undergraduate training and a good grasp of English who is able to study full time will be able to complete the degree in one calendar year. Students whose first language is not English, or who have little background in economics, typically require three semesters plus a summer.

#### Degree Requirements:

The M.A. degree requires 30 credits including 5 mandatory courses and 5 electives chosen in consultation with the MA degree director. Courses required for the M.A. degree include: ECN 601 (microeconomic theory), ECN 602, ECN 613, ECN 614 (macroeconomic theory) or ECN 610 (Economic Dimensions of Global Power), each with a grade of B- or better. Students must also take 6 credits of statistics and econometrics, normally satisfied by taking ECN 521 and ECN 522 but for students with exceptional undergraduate training may include ECN 620, ECN 621 and ECN 622. Finally, Mathematical Economics (ECN 505 or alternatively, ECN 605) is also required.

Students may take courses numbered between 500 and 599, but normally at least 15 credits must be at the 600 level or above. A student's program may include 6 credits taken outside the Syracuse University economics department. This includes economics courses at the graduate level transferred from another institution or cognate courses taken in other departments at Syracuse University. The latter may be chosen only in consultation with the advisor. Alternatively, students can conduct independent research under

## GRADUATE COURSE CATALOG

the supervision of a faculty member normally for 3 credits and occasionally for 6 credits. This option requires the student to produce a substantial research paper demonstrating a mastery of relevant economic theory and advanced statistical methods. The cumulative grade point average for the courses taken toward credit for the M.A. degree must be 3.0 or better.

### Geography, MA

#### Program Requirements

The M.A. program in geography gives the student a perspective on the nature of contemporary trends in geography, develops research skills, and provides a beginning to advanced training in the discipline.

The program consists of 30 graduate credits, at least half of which must be at the 600 level or above. The students may write a master's thesis (three to six credits) or two master's papers. The choice must be made by the end of the first year.

The M.A. program assumes a basic foundation in geography, including work in human, environmental, and physical geography, as well as in relevant methods. Students without such a background must do extra work, such as attending courses, auditing, or reading.

The student's advisor and committee approve the topic for and supervise the writing of the master's thesis, which must be completed by the end of the second year. Students electing to write two master's papers instead of a thesis must have each paper approved by two members of the geography faculty.

### History, MA

#### Program Requirements

The department offers the Master of Arts degree to students who have pursued successfully one of the following programs of study. M.A. students may apply for admission to the Ph.D. program after passing the exam or thesis.

The student must complete 30 credits of coursework including three seminars. No more than 12 credits may be taken in undergraduate courses carrying graduate credit. No more than nine credits may be taken outside the department. A 3.0 (B) average is required in all courses. Transfer of credit is subject to Graduate School regulations. Students must complete a language requirement. All students must pass a comprehensive oral examination in one field of history. The student may not enroll for more than 30 credits of coursework prior to taking the examination.

The student completes 24 credits of coursework,

a language qualification, and either an oral examination, or a passing thesis, that carries 6 thesis credits. The thesis must be read and approved by the advisor and two other faculty members with whom the student has taken courses.

### International Relations, MA

219 Maxwell Hall  
315-443-3759

Director, Steve Lux  
Associate Director, Catherine M. Gerard  
Assistant Director, Student Programs - Margaret E. Lane, 315-443-8708

#### Program Requirements

The Executive Master of International Relations (EMIR) is open to the midcareer professional with at least seven years of management experience with a current position beyond that of basic supervisor within the public, private, NGO and nonprofit sectors. The program focuses on the global arena, highlighting the opportunities and challenges facing leaders in a dynamic, international environment with an emphasis on updating skills in the field of international relations. Current students are drawn from international government ministries and NGO's; federal, regional, state and local domestic agencies; and a variety of nonprofit and private organizations. The 30-credit program may be completed in one calendar year of full-time study or in a variety of part-time formats.

The program requires students to form a concentration in topical and regional subfield of international affairs tailored to their professional needs. The degree consists of 10 courses, including three required courses: PAI 895 - Mid-career Training Group Executive Education Seminar, PAI 996 - Master's Project Paper, and the choice either PSC 783 - Comparative Foreign Policy or PAI 713 - Governance and Global Civil Society, depending on whether the student's study interest focuses on foreign policy analysis or questions around the role that transnational actors play in international relations. The other 21 credits will be divided into three categories: 1) those that constitute a specific career track for the student (9 credits), 2) those that are focused on a particular region of the world (3 credits), and 3) electives from the range of relevant courses offered across the Maxwell School departments (9 credits). Some of these elective courses may be selected, with permission, from another college or school of the University.

The Executive Education Program also administers several certificate programs, which can be pursued concurrently with the EMIR, as well as the

option to complete a 51-credit dual EMIR/EMPA program.

### International Relations, MA

Chair and Associate Dean David Van Slyke, 215 Eggers Hall, 315-443-4000  
Vice Chair Renée de Nevers, 215 Eggers Hall, 315-443-4000

See faculty listing under Public Administration and International Affairs

The multidisciplinary International Relations (IR) program links the Maxwell School's long-standing interest in contemporary world problems with scholarly approaches to solving them. The M.A. program combines an academic experience with professional training aimed at preparing students for positions in the public, non-profit, and private sectors in the international arena.

#### M.A. Degree

The Master of Arts in International Relations, a 40-credit program, draws students from throughout the world. It combines rigorous academic experience with professional training for positions in the public, non-profit, and private sectors.

The program emphasizes a multidisciplinary curriculum and uses the resources of various Maxwell School departments and research centers, such as the Program for the Advancement of Research on Conflict and Collaboration and the Moynihan Institute of Global Affairs. Core faculty members are drawn from public administration & international affairs, political science, anthropology, sociology, history, economics, and geography. Students may also take courses in other colleges at the University, particularly the College of Law, the Whitman School of Management, the S.I. Newhouse School of Public Communications, and the School of Information Studies.

All students are required to complete five core courses including international relations, economics, quantitative analysis, program evaluation and management, and one of five signature courses. Students then select one career track to organize their studies. Career tracks include: international economics, finance and trade; peace, security and conflict; governance, diplomacy and international organizations; democracy, development and humanitarian assistance; and regional concentrations in Africa, Asia, Europe, Latin America, and the Middle East.

Most students also take advantage of the Global Program offerings to fulfill the internship requirement. Students may complete a summer internship program in Washington, D.C. or



## GRADUATE COURSE CATALOG

overseas. In their second fall semester, students may participate in the Global Security and Development program in D.C. Students may also choose to study in one of several overseas centers.

The program can be completed in 16 months. Proficiency in a second language is required.

Candidates for the MAIR degree have the option to pursue joint degrees in the fields of public administration, economics, law (the College of Law requires matriculation in their JD program prior to beginning coursework at Maxwell), and public relations at the S.I. Newhouse School of Public Communications (public diplomacy dual degree program). Students may also pursue concurrent degree programs with the MAIR program and other departments and colleges of the University, such as environmental science and forestry (SUNY-ESF), geography, information studies or management, among others.

### Political Science, MA

#### Program Requirements

The M.A. program requires completing 30 graduate credits, including one methodology course selected from PSC 693, PSC 694, PSC 796, or an alternative course approved by the Director of Graduate Studies. No more than 9 credits may be earned at another institution. There is no thesis requirement, and the degree can be earned within one year. Students must maintain at least a 3.0 grade point average, and their credits may include courses from other departments in the University. Since master's candidates have diverse career goals, ranging from government service to teaching or working in the private sector, the department allows considerable flexibility in course selection.

### Public Administration, MPA

219 Maxwell Hall  
315-443-3759

Director, Steve Lux

Associate Director, Catherine M. Gerard  
Assistant Director, Student Programs - Margaret E. Lane, 315-443-8708

#### Major Requirements

The Executive Master of Public Administration (EMPA) is open to individuals with substantial experience and managerial responsibility in the public, private, and nonprofit sectors (including NGOs). The typical candidate has seven or more years of management experience and holds a position beyond that of basic supervisor. The program is designed for mid-career managers who require updated information and skills, who anticipate promotion to a leadership

position, or who plan to transition to the public or nonprofit sectors. Current students are drawn from international government ministries and NGOs; federal, regional, state, and local domestic agencies; and a variety of nonprofit and private organizations. The 30-credit program may be completed in one calendar year of full-time study or in a variety of part-time formats.

The program encourages students to form a concentration in a policy or administrative area tailored to their professional needs. The degree consists of 10 courses, including three required courses: PAI 895 - Mid-career Training Group Executive Education Seminar, PAI 897 - Fundamentals of Policy Analysis, and PAI 996 - Master's Project Paper. Four of the additional seven elective courses may be selected from another department of the Maxwell School or, with permission, from another college or school of the University.

The Executive Education Program also administers several certificate programs, which can be pursued concurrently with the EMPA. A dual degree of EMPA and the Executive Master of International Relations (EMIR) is also possible.

### Public Administration, MPA

The Maxwell School's M.P.A. program emphasizes general training of people who will assume high responsibilities in public service. By offering a variety of fields for students who want to gain a substantive focus while obtaining generalist training in public administration and policy, the program responds to the needs of today's public managers and policy analysts. Students have access to most of the University's graduate courses and also to those of the State University of New York College of Environmental Science and Forestry. Working with advisors, students have ample opportunity to tailor appropriate programs of study.

#### Program Overview

The program requires a residency of 12 to 18 months. All students begin the program in early July, and those who carry full course loads throughout their residency will complete the program the following June.

The degree requires 40 credits of coursework, 34 of which must be in public administration and international affairs courses. Twenty-five of these credits satisfy core area requirements. Core requirements include three or more credits in each of several areas, including economics, quantitative analysis, organization and management theory, public budgeting, and political context. Additional work in related electives satisfies the remaining 15 credits. Courses may be selected from those of the public administration and international affairs department, other departments in the Maxwell

School, or elsewhere in the University.

Degree requirements are flexible enough to allow a student to design a program in an area such as state and local government, financial management and analysis, public and non-profit management, technology and information policy, international and development administration, environmental policy and administration, international and national security policy, or social policy (health, aging, education, social welfare) and still complete the core courses required of all M.P.A. students.

Students may petition to have a maximum of six credits of relevant graduate work earned elsewhere counted toward degree requirements. Students are expected to complete at least 34 credits while in residence at the University.

### Public Health, MPH

Michael Wasylenko, Ph.D., Senior Associate Dean,  
Maxwell School

200 Eggers Hall; 315-443-2253; mjwasyle@maxwell.syr.edu

[www.upstate.edu/cnymph](http://www.upstate.edu/cnymph)

#### Program Requirements

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, College of Engineering and Computer Science, the College of Law and the David B. Falk College of Sport and Human Dynamics.

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

## GRADUATE COURSE CATALOG

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)

### Social Science (Limited Residency), MSSc

#### Chair:

Deborah Pellow  
Asst. Director, Executive Education: Margaret Lane  
315-443-3759

#### Faculty:

M. Barkun, D. Bennett, M. Boroujerdi, N. Kutcher, D. Pellow, S. Webb

The Master of Social Science degree was founded over 40 years ago and now resides in Maxwell's Executive Education Program. It utilizes interdisciplinary comparative analyses to explore the world's broad social science problems. The curriculum pays special attention to the issues of international studies, the foundations and development of major societies and questions involving war and society in the world's major cultural areas.

#### Program Requirements

The innovative program is accomplished by two two-week residencies, distance learning and independent study with faculty members from across the Maxwell School, who work together to ensure an interdisciplinary approach to learning.

This unique arrangement allows MSSc students to earn a master's degree while concurrently maintaining their professional careers as NGO officials, teachers, military personnel, government officers, journalists, and corporate executives involved in international business. Study for the Master of Social Science degree can begin at any time of the year.

### Sociology, MA

#### Program Requirements

The Department normally accepts only those students wishing to pursue the Ph.D., although provision is made for awarding the M.A. degree.

All incoming students must complete a core curriculum of our courses. Students entering with a master's degree from another institution may waive specific core courses by petitioning the graduate committee. The master's degree is awarded upon passing of the core courses, and completion of 30 graduate credits. Students may write a master's thesis and receive six thesis credits.

### Doctorate

#### Anthropology, PhD

Ph.D. students must demonstrate, by earning a "Ph.D. Pass" on the Qualifying Examination, that they are qualified to carry out a significant body of anthropological research. Once their proposal has been approved by their committee, they are expected to carry out the project and write a dissertation based on this research.

##### 1. Basic requirements:

72 graduate credits (past B.A.) as follows:

Minimum of 33 credits in anthropology

Maximum of 27 credits in cognate fields

Maximum of 12 "dissertation" credits

Completion of core courses (or the equivalent-see M.A. guidelines)

Satisfactory completion of the qualifying examination

##### 2. Students with a Prior Master's Degree

2. Students with a prior master's degree must fulfill all core courses and qualifying requirements (see M.A. guidelines). This may be accomplished through satisfactory completion of required coursework, the qualifying examination, and other means approved by the Graduate Committee (petition to the graduate director is required).

##### 3. Tools and methods requirement:

Cultural students must satisfy the tools and methods requirements for the M.A. plus show proficiency in a language of international scholarship, a literary language, or a field language.

Archeology students must satisfy the tools and methods requirements for the M.A. plus show proficiency in a language of international scholarship, a literary language, a field language, or in managing electronic databases and other computer programs for data processing.

##### 4. Dissertation committee:

The Ph.D. student is responsible for forming a committee that will guide and preside over the doctoral dissertation. The committee is composed of five members, including the student's principal advisor and at least two other faculty members from the department. At the discretion of the advisor, one member of the committee may be chosen who has no affiliation with Syracuse University.

##### 5. Position papers:

Doctoral students are required to write three position papers on topics selected in consultation with the student's advisor and committee. The position papers are intended to demonstrate the student's competence in a) the geographical area and focal context of specialization, b) the topic of specialization (local and cross-cultural perspectives on a specific research topic), and c) a specific research problem. The position paper should be the student's original synthesis of the specialized literature in each of the three areas. The ideal paper would be one that could be published in the Annual Review of Anthropology. Position papers may be written and submitted (in consultation with the student's core committee) at any time beginning in the student's third term of residence. They must all be completed and approved before a formal research proposal may be defended.

##### 6. Dissertation proposal and proposal defense:

Doctoral students must submit a dissertation proposal to their dissertation committee, and successfully defend it during an oral examination. The dissertation proposal should be a substantive piece of work demonstrating competencies in theory, method, topic, and geographic area sufficient to support the proposed research.

##### 7. Dissertation and dissertation defense:

The dissertation is an original and substantial written report on the student's doctoral research. Completed dissertations are subject to a formal dissertation defense.

### Economics, PhD

The Ph.D. in economics at Syracuse is a research-oriented degree, designed for those who want to do applied economics in higher education, government, international agencies, independent research organizations, or private businesses with a substantial research mission.

Entering graduate students should have had at least one year of calculus, a course in mathematical statistics, and a course in linear

## GRADUATE COURSE CATALOG

algebra. In their class work, Ph.D. students take a course in mathematical economics, three courses in microeconomic theory, two courses in macroeconomic theory, three to four courses in econometrics, fulfill the requirements in two fields, as well as breadth requirements and electives totaling 51 credits. Counting dissertation hours, the total number of credits in the program is 72 hours. Students may choose two fields from among labor economics, international economics, public economics, urban economics and econometrics. Students with particularly strong theoretical interests may take fields in microeconomic theory, macroeconomic theory. A student with strong interest in finance may take a field in it through the finance department of the School of Management. A student wishing to take a field in an area other than microeconomics, macroeconomics, econometrics, labor economics, public economics, international economics, or urban economics must receive the explicit approval of the director of graduate studies of the economics department.

Faculty and graduate students work closely in research, teaching, and graduate study. For example, Ph.D. students often write papers for journals and conferences with faculty members.

In addition, some graduate students participate in a special University program that helps form good teaching practices. Syracuse University is one of a few universities that provides graduate students with a formal program to learn about college-level teaching practices.

## Admissions Requirements

Applications from all interested individuals are welcome. Present graduate students have varied undergraduate backgrounds, including economics, physics, and mathematics. Completion of a master's degree in economics is not required to enter the Ph.D.

Persons interested in studying for the Ph.D. should complete the application form found in the Maxwell School catalog or at the web site, [www.maxwell.syr.edu](http://www.maxwell.syr.edu), and have three letters of recommendation sent on their behalf. In addition, all applicants should submit their scores from a recent general Graduate Record Examination and transcripts of all collegiate and post-collegiate work. Applicants whose first language is not English should submit the results of a recent TOEFL examination. Preference for graduate assistantships is given to students with TOEFL (iBT) scores of 100 and above.

## Financial Support

Merit-based financial aid awards are available

to support study in the Ph.D. program in the form of fellowships and graduate assistantships. Financial support is renewed each year for five years of study, subject to maintaining satisfactory performance in the Ph.D. program. The deadline for submitting applications for a University Fellowship or the deadline for a graduate assistantship is February 15, although later applications are considered for the assistantship awards. Candidates for admission who do not require University financial support may apply at any date.

## Fellowships

Fellowships Economics applicants compete with applicants to other departments at Syracuse University for University Fellowships. Winners receive a fellowship in their first and fourth years of study and receive graduate assistantships in their second, third and fifth years. Fellowships include a stipend of approximately \$24,310 (2015-16) and a full-tuition scholarship for 30 credits for the academic year. Students receiving a fellowship have no service responsibilities to the University during the years that they are on the fellowship. Recipients generally take 12 credits each semester that they are on fellowship. Fellowship recipients can opt to have University health care insurance coverage at a modest fee. Fellowship stipends are taxable under the state and federal government laws.

## Graduate Assistantships

The economics doctoral program provides opportunities to obtain teaching experience and to participate in research projects with faculty. Most entering and continuing graduate students have teaching assistantships. All teaching assistants participate in a unique Teaching Assistant Orientation Program conducted by the Graduate School. As a teaching assistant, students eventually gain experience in all aspects of teaching, from exam preparation and grading to lecture preparation and presentation. Some advanced doctoral students conduct their own classes, usually teaching at Syracuse University Continuing Education (SUCE).

Advanced graduate students may elect to compete for research assistant positions. Research assistantships are available, for example, through the Center for Policy Research, a research institute within the Maxwell School, or through faculty members who have externally sponsored research projects. In fact, many students serve as both teaching and research assistants during their time in the doctoral program.

Graduate assistantships are renewed each academic year on the basis of satisfactory progress in the Ph.D. program and of the recent performance as a teaching or research assistant. Assistantships include a stipend of \$18,100 for the 2015-2016 academic year. Graduate assistants can opt to have University health care insurance coverage at a modest fee. Assistantships require up to 20 hours of service per week in teaching, grading, or research. A full graduate tuition scholarship for 24 hours of coursework per year is also awarded with the assistantship. Students with assistantships take 9 hours of courses during each semester, and students should use their remaining 6 hours during the summer to register for additional courses or for dissertation credits.

Graduate stipends are subject to tax by state and federal governments but, at this time, are not subject to the social security payroll tax.

## Summer Support

The economics department offers opportunities for teaching, research, and summer fellowship support. Summer funding is also available to graduate students through externally funded research projects. All summer support is subject to taxation by the state and federal governments but, at this time, is not subject to the Social Security payroll tax.

## Degree Requirements

The Ph.D. degree in Economics at Syracuse is designed to be completed in five years. After 30 credits of graduate coursework in economics, students in the Ph.D. program should file for a master's degree in economics. That process begins in the department office.

The program consists of three stages: (1) completion of graduate coursework with an average grade of 3.0 or better, (2) satisfactory performance on the two qualifying examinations and the field comprehensive examination(s), and (3) submission and successful defense of the dissertation. In practice these stages are intermingled, but it is useful to describe them separately.

## Coursework

For students entering with no prior graduate work, the coursework generally consists of 2 1/2 to 3 years (51 credits) of graduate course credits and 21 hours of dissertation credit hours. The program builds on a set of core courses and includes elective courses that allow for breadth of study in economics. The core courses include:

**ECN 601 - Survey Microeconomic Theory 3 credit(s)**

## GRADUATE COURSE CATALOG

**ECN 611 - Microeconomics I 3 credit(s)**

**ECN 612 - Microeconomics II 3 credit(s)**

**ECN 613 - Macroeconomics I 3 credit(s)**

**ECN 614 - Macroeconomics II 3 credit(s)**

**ECN 605 - Mathematics for Economists 3 credit(s)**

**ECN 620 - Foundations of Econometrics 3 credit(s)**

**ECN 621 - Econometrics I 3 credit(s)**

**ECN 622 - Econometrics II 3 credit(s)**

**ECN 820 - Dissertation Workshop I 3 credit(s)**

**ECN 821 - Dissertation Workshop II 3 credit(s)**

### Additional Information

In addition to the core courses, each student studies two fields, in which they develop considerable expertise. The coursework beyond the core is applied toward the field courses and the fulfillment of program breadth requirements.

### Field Coursework:

Two Ph.D.-level courses in each field. Students supplement with related courses offered in the department.

### Breadth Requirement:

This consists of two courses outside of the student's two main fields.

### Two-Breadth Requirement

The two-breadth requirement may be satisfied by ECN 720 (Advanced Econometrics) and other courses offered in economics fields or at Syracuse University. Students should consult about fulfilling the breadth requirements with the graduate studies committee as well as with other economics faculty members who may serve as graduate advisors.

A typical course schedule for a student on a graduate assistantship is as follows:

### Course Schedule

A typical course schedule for a student on a graduate assistantship is as follows:

#### Summer 2015

**ECN 605 - Mathematics for Economists 3 credit(s)**

**ECN 620 - Foundations of Econometrics 3 credit(s)**

#### Fall 2015

**ECN 601 - Survey Microeconomic Theory 3 credit(s)**

**ECN 621 - Econometrics I 3 credit(s)**

**ECN 613 - Macroeconomics I 3 credit(s)**

#### Spring 2016

**ECN 611 - Microeconomics I 3 credit(s)**

**ECN 622 - Econometrics II 3 credit(s)**

**ECN 614 - Macroeconomics II 3 credit(s)**

#### Summer 2016

Examinations in Micro and Econometrics

#### Fall 2016

**ECN 612 - Microeconomics II 3 credit(s)**

ECN Field I, Course 1

ECN Field II, Course 1

#### Spring 2017

ECN Field I, Course 2

ECN Field II, Course 2

**ECN 820 - Dissertation Workshop I 3 credit(s)**

#### Summer 2017

Field Examination, Dissertation hours

#### Fall 2017

**ECN 821 - Dissertation Workshop II 3 credit(s)**

ECN Breadth

ECN Breadth

#### Spring 2018

The fourth and fifth years are dedicated to dissertation research and writing. Students with graduate assistantships should register for up to six dissertation hours or take courses during the summer semesters. Students on fellowships follow a modified schedule from that just outlined.

### Transfer Credits

A student who has taken graduate coursework at other institutions and wishes to matriculate in our Ph.D. program can transfer course credits to Syracuse University. A student may transfer up to as many credits from another institution as the number of course credits that will be taken at Syracuse. For the typical student who will have 51 course credits and 21 dissertation hours to complete the Ph.D., he or she may transfer 24 credits of coursework from another institution. A

graduate course is eligible for transfer credit if the grade in the course is 3.0 (on a 4.0 scale) or better. Students who transfer courses should review their programs of study with the director of graduate studies before they begin coursework at Syracuse, so that courses are not repeated.

### Fields

The department regularly offers five fields. These fields are public economics, labor economics, international economics, urban economics, and econometrics.

A student with a particularly strong interest may also apply to the director of graduate studies for a field in microeconomic theory or macroeconomic theory. The coursework for an economic theory field is selected in consultation with a professor who will assume responsibility for both the supervision of the field and the comprehensive examination in the field. A field in econometrics requires two different course offerings of ECN 720 Selected Topics in Econometrics (in addition to ECN 620, ECN 621, ECN 622).

A student whose interests and research goals would benefit from a deeper understanding of financial economics may be permitted to take a field in financial economics. Coursework and the comprehensive examination in this field are administered by the finance department in the School of Management.

The field can focus on either corporate finance or investment. Completion of the following courses with a grade of B or better is required in order to take a comprehensive exam in financial economics: FIN 751, FIN 855, and FIN 960 (Topics in Corporate Finance). FIN 756, FIN 758, FIN 960 (Topics in Investment) must be completed for a concentration in investment. The economics department can make no assurance as to the availability of these classes or to the timing of the examination. A student wishing to take a field in financial economics must receive the explicit approval of the graduate studies committee of the economics department and the chairperson of the Department of Finance.

### Examinations

Students take two comprehensive qualifying examinations in areas of microeconomic theory and econometrics; and a comprehensive examination in one of the fields. Students not passing an examination are able to retake it once. Progress toward the degree and grades to that date generally determine whether the student is advised to continue in the Ph.D. program.

**Qualifying Examination** Students take the qualifying examination in the summer, after one year of study. By that time, students will have completed courses in Microeconomic Theory (ECN 601, ECN 611) and Macroeconomic Theory

## GRADUATE COURSE CATALOG

(ECN 613, ECN 614) and Econometrics (ECN 620, ECN 621, ECN 622). An average grade of B or better in these courses is normally required to take the qualifying examination, although the graduate studies committee can make exceptions for unusual cases. Students who do not pass the qualifying examinations may retake the examination later that same summer.

### Field Examinations

Normally, students take a comprehensive examination in their primary field in the summer after their second year of study. The fields (primary and secondary) may be fulfilled through coursework if the course grades are high enough, or through a comprehensive examination. Students will normally take the field examinations at the next scheduled sitting following the completion of the field course sequence (even if a grade of incomplete is recorded). Not taking the examination at the next scheduled sitting will count as a failure.

Field 1: At least two courses must be completed in the primary field. The exact sequence of courses varies according to field. Grades of B or better in both courses are required to take the comprehensive examination in the field.

Field 2: At least two courses must be completed in the second field. If the student receives an average grade of B+ or better in the coursework for the second field, the requirements for the second field are complete. Students without a B+ average in the coursework will take a comprehensive examination in the second field or follow some other approved remedial action.

Separate arrangements for examination are made when a student takes a field in economic theory.

### Dissertation

Our program is designed so that students begin planning dissertations during their third year (or earlier) and finish them during their fifth year. Students are also required to write an acceptable dissertation containing a contribution to knowledge, conforming to professional standards of evidence and argument, and presented in clear and correct language. After completion, the dissertation must be successfully defended in an oral examination. Students must provide all members of the guidance committee a complete draft of their dissertation no later than one month before the scheduled date of the oral examination.

Dissertation Workshops I and II In Dissertation Workshop I, ECN 820, students learn essential research skills, develop a dissertation proposal, and write basic dissertation chapters. Dissertation Workshop II, ECN 821, is a seminar with students presenting dissertation research in progress.

### Satisfactory Progress

Only students making satisfactory progress are eligible for departmental support. A student is making satisfactory progress as of the beginning of the second year if he or she has passed all first year core courses; maintained a cumulative average of 3.0 or better; earned a grade point average of 3.0 or better in ECN 613 and ECN 614; and passed both the econometric and microeconomic qualifying examinations

A student is making satisfactory progress at the beginning of the third year if he or she has passed all second year core courses; maintained a cumulative average of 3.0 or better; and passed his or her preliminary field comprehensive examination

A student is making satisfactory progress at the beginning of the fourth year if he or she has maintained a cumulative average of 3.0 or better; and completed his or her secondary field requirements

### Geography, PhD

#### Program Requirements

Students entering the Ph.D. program with master's degrees from other universities are expected to have or acquire qualifications equivalent to those normally achieved by a Syracuse M.A. in geography. The student must maintain a 3.0 grade average.

Coursework the Ph.D. degree requires a total of 72 credits of approved graduate work in geography and related fields. The 72 credits include credits accepted for the master's degree, and as many as 12 credits in dissertation research. At least 24 credits of coursework must be taken in residence at Syracuse. At least two-thirds of the coursework (not including the dissertation) must be at the 600 level or above. All doctoral programs in geography are research-oriented.

Areas of Competence Toward the end of the program, a Ph.D. student must demonstrate, through a written and oral qualifying examination, special competence in three topical fields. Each doctoral student must provide evidence of competence in those research skills to be used in the dissertation as outlined in the formal proposal.

Dissertation A formal dissertation proposal must be submitted and approved before the Ph.D. qualifying examination is taken. The dissertation itself should be an original scholarly

contribution to the field and may be highly varied in methodology, topic, and style of presentation. It must be defended orally.

Qualifying Examination Before taking the qualifying exam a student must have completed all requirements except the dissertation itself. The exam has both written and oral parts covering the specific subfields identified by the student in consultation with the advisor.

### History, PhD

#### Program Requirements

The Ph.D. in history requires a broad knowledge of several fields of history. This knowledge must be acquired through the independent initiative of the student under the direction of the faculty. The Ph.D. requires at least three years of full-time study or its equivalent. Normally, 48 credits (including the credits offered for the M.A.) of coursework are required. Students generally take an additional 24 hours of dissertation research credits. No more than 12 credits may be taken in undergraduate courses carrying graduate credit. A 3.0 (B) average must be maintained.

### Languages

The department requires knowledge of one foreign language. Individual advisors may require knowledge of one additional language. Language requirements are fulfilled by passing a standardized departmental exam. Coursework taken in support of a language requirement may not be included in the 48 credits of coursework required for the Ph.D., but may be counted as part of the total 72 credits for the Ph.D. Doctoral students must complete one language requirement during the first year of graduate study. A second language requirement, if required, must be completed before taking oral comprehensive exams.

### Fields

At the beginning of graduate work, M.A. candidates with their advisors should select a field of specialization in which they will take a comprehensive oral examination or write a thesis at the completion of their hour requirements. Students working toward a Ph.D., in consultation with their advisors, should select a major field in which they plan to write their dissertations. They should also select two specific fields. Two of the three fields offered must be in history. Specific major fields currently offered by the department include:

Africa - Pre-Colonial, Modern

East Asia - Pre-Modern China, Modern China, Pre-Modern Korea, Modern Korea

## GRADUATE COURSE CATALOG

Europe - Ancient, Medieval, Early Modern, Modern

Latin America - Modern, Colonial, Mexico, Caribbean

United States - Early North America, Modern United States, Women, Religion, Native American, African American

South Asia - Modern and Contemporary

Thematic - Empire, Nation and Citizenship; Labor and Social Movements; Mediterranean World; Modern Atlantic; Political Violence; Intellectual History;

Crime, Law and Deviance; Gender and Sexuality; Race and Ethnicity; Religion and Society

### Examinations

Ph.D. students take an oral examination in their major and specific fields. Upon successful completion of these exams, students also must pass an oral defense of the dissertation proposal.

### Dissertation

Each candidate for the Ph.D. must complete and defend a dissertation.

All students are to adhere to the History Department Graduate Rules and Regulations and Syracuse University's regulations.

### Political Science, PhD

#### Program Requirements

In the spring semester of the first year, graduate students in political science are evaluated on the basis of their performance in courses. A student invited to remain in the program to work toward a Ph.D. must complete 51 credits of graduate coursework and 21 dissertation credits, with a 3.0 or higher grade point average.

Ph.D. students are required to take PSC 691, PSC 693, PSC 694, PSC 792, and at least one additional methods course approved by the Director of Graduate Studies. Once 30 credits of coursework are accumulated, a student working toward the Ph.D. will be eligible for the M.A. Students having done graduate work at another institution may petition to transfer a maximum of 24 credits toward the Ph.D.

Ph.D. students must pass qualifying examinations in two chosen fields of specialization, generally by the end of the third year. Students must also write and defend a doctoral dissertation.

### Public Administration, PhD

The Ph.D. program is designed for full-time residential students who are interested in scholarly careers as researchers and teachers. All

aspects of the program are focused on providing Ph.D. students high quality research and teaching experiences. The curriculum is designed to assure that all students:

Gain substantial competency in the core subject matter and methodologies that are central to preparing for careers as public administrators and policy researchers

Obtain a firm understanding of the broad intellectual tradition of Public Administration

Become active researchers beginning in their first year of the program

### Ph.D. Requirements

Doctoral studies in Public Administration provide an interdisciplinary study of public management and public policy analysis. Ph.D. students complete 72 graduate course credits plus 9 dissertation credits. Requirements for admission include an M.P.A. or related master's degree. Up to 36 credits earned in previous graduate study may be used to satisfy the program's 72 course-credit requirement (39 credits for Maxwell MPA students). All students complete at least 3 credits in the intellectual history of public administration, 3 credits in public organization theory, 9 credits in research methods, and 12 credits in two fields of specialization (6 in each).

Fields of specialization currently offered are: public finance, budgeting and financial administration; organization theory and public management; technology and information policy; nonprofit studies; development policy and administration; environmental and natural resource policy; and social policy. Students have the option of substituting a field of their own design for one of the two required fields of specialization, subject to faculty approval. All Ph.D. students in good standing serve as graduate assistants during the first two years of residence. Graduate assistants work with faculty on research projects and course related activities. Participation in the University's TA Training Program is also required just prior to the start of the initial fall semester.

Upon completion of required coursework and the research apprenticeship, comprehensive examinations are taken, followed by preparation of a dissertation that must be defended in an oral examination.

### Social Science, PhD

#### Chair

Vernon Greene  
413 Maxwell Hall  
315-443-2275

The Maxwell School's Social Science Ph.D.

Program was established in 1946 as the nation's first interdisciplinary doctoral program in the social sciences. It continues to be a leading center for creative scholarship for students whose intellectual interests do not easily fit within the confines of a single discipline. With guidance from their faculty advisers, drawn from departments throughout the Maxwell School, Social Science doctoral students develop their own programs of interdisciplinary study. The Social Science Ph.D. Program was founded in the conviction that a broad interdisciplinary education would often better prepare higher education faculty in the social and policy sciences than would narrower, more specialized training in one of the traditional disciplines. The founders of the program believed that many questions about the nature of society rested not just in one discipline, but required the integrated contributions of political science, geography, sociology, anthropology, history, international relations, economics, and public administration. This conviction is today being even further reinforced by the growing complexity and interdependence of societies in the modern world. A large majority of graduates take up professorial careers at colleges and universities, though some enter professional and leadership positions in the nonprofit and public sectors.

### Social Science Ph.D. Degree Requirements

Coursework requirements for the Ph.D. in Social Science are met by completing 72 credit hours of approved graduate work. Students normally enter the program with an accredited masters degree, from which up to 30 credit hours can be applied towards the Ph.D., leaving 42 credit hours to be earned in residence. Up to 12 of these credit hours may be for dissertation credit.

All students must complete four approved seminars in Social Theory and four in Social Research Methods, which may be taken in any of the social science departments or disciplines. For this purpose, a Theory seminar is one whose primary topic is social theory as such, and a Methods seminar is one whose primary topic is research methods as such. As a practical matter, any seminar that is part of the required doctoral theory core for the offering department will nearly always also qualify towards satisfying the Social Science theory requirement, and similarly for research methods seminars. Once coursework is completed, students defend their dissertation proposal and take their comprehensive examinations - after success in these, they are advanced to candidacy and begin or continue their dissertation project. The Ph.D. is granted after a successful defense of the dissertation.

## Sociology, PhD

### Program Requirements

Students are admitted to the Ph.D. program upon successful completion of the master's degree requirements and recommendation of the faculty. Coursework is flexible and individualized. A total of 72 credits beyond the bachelor's degree is required to obtain the Ph.D., including at least 45 credits of graded coursework and at least 9 dissertation credits.

The areas of concentration include globalization, immigration, transnational studies; health, aging, life course; family education, work; power, capital, culture. Students are encouraged to gain teaching and research experience. They may do this through a teaching assistantship, participating in one of the several multidisciplinary research centers of the Maxwell School, or undertaking joint projects with faculty members.

Students normally take the Ph.D. comprehensive examinations after the third year or after two years if they entered with an M.A. degree. The examination covers theory, methods, and substantive areas in the broad context of Sociology and in the student's dissertation field(s). Students must also pass two advanced courses in research methods beyond the required courses. Examples that would satisfy this requirement are courses on advanced statistics, advanced qualitative techniques, or historical methods.

Finally, students must conceive, execute, present, and defend a doctoral dissertation proposal and a completed dissertation.

### Combined Degree

## International Relations/ Public Administration, MA/MPA

An approved 58-credit joint degree program between International Relations and Public Administration is available to students and may be completed in a two-year period.

## Law/History, JD/MA

### Degree Requirements

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. The 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 444 College of Law, 443-1146, cabbotth@law.syr.edu

## Law/International Relations, JD/MA

### Degree Requirements

The Juris Doctor/Master of Arts in International Relations is a combined degree which is conferred by the International Relations program of the Maxwell School of Citizenship and Public Affairs and the College of Law. This joint degree program offers students a unique opportunity in developing 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 Global Markets, Negotiation and Conflict Resolution, Global Development Policy, Global Security, Transnational Organizations and Leadership, and Foreign Policy.

Questions and inquiries may be addressed to Joshua Kennedy, Associate Director of Graduate Studies, International Relations, 215 Eggers Hall, Maxwell School of Citizenship and Public Affairs (443-5339; jkenn01@syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

## Law/Political Science, JD/ MA

### Degree Requirements

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 should be directed to Professor Glyn Morgan, Director of Graduate Studies, (dgmorgan@maxwell.syr.edu). Students

with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

## Law/Political Science, JD/ PhD

### Degree Requirements

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 should be directed to Professor Glyn Morgan, Director of Graduate Studies, (dgmorgan@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

## Law/Public Administration, JD/MPA

### Degree Requirements:

A longstanding and popular joint degree exists between the Department of Public Administration of the Maxwell School for Citizenship and Public Affairs and Syracuse University's College of Law. Students can prepare for a career that rests on the nexus of law and public administration with the JD/MPA degree. Students must apply and be admitted to both programs separately and will complete the entire first year in the College of Law prior to matriculation into the MPA degree. Due to the calendar nature of the MPA program, this challenging joint degree, one of the oldest of its kind anywhere, can be completed in three years (the same time needed for a JD alone).

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabbotth@law.syr.edu).

## GRADUATE COURSE CATALOG

### Public Administration, JD/ MPA

#### Joint and Concurrent Degree Programs

A joint program with the College of Law allows students who have been admitted into each program to earn the M.P.A. and J.D. degrees in a three-year period. A 58-credit joint degree program with International Relations is also available to students and may be completed in a two-year period. Students may arrange similar concurrent degree programs with the M.P.A. program and other departments and colleges of the University, such as environmental science and forestry, economics, geography, social work or management.

### Public Diplomacy, MS/MA

#### Contact:

Dennis F. Kinsey, Director  
452 Newhouse 3, 315-443-3801

<http://publicdiplomacy.syr.edu/>

#### Faculty

See faculty listing under Public Administration and International Affairs in the Maxwell School of Citizenship and Public Affairs and under Public Relations in the S.I. Newhouse School of Public Communications.

The Maxwell School of Citizenship and Public Affairs and the S.I. Newhouse School of Public Communications offer a multidisciplinary graduate program leading to the Master of Arts (M.A.) degree in International Relations and the Master of Science (M.S.) degree in Public Relations. This dual-degree program is offered jointly by the Maxwell School's Department of Public Administration and International Affairs and the Newhouse School's Department of Public Relations. It is designed to train professionals to assume public communications responsibilities for governments, non-governmental organizations, and the private sector.

#### Program Requirements

Successful completion requires 58 credits of coursework. The program begins in early July with a summer-long gateway seminar, introducing students to the fields of public diplomacy, public communications, and their cross-disciplinary synthesis. During the fall and spring semesters, students take courses at the Maxwell and Newhouse Schools. The following summer, students complete an off-campus experience

at one of several locations around the world. Students resume coursework in the second fall semester and finish the program that spring in Washington, D.C., where they complete a required internship and attend two special seminars addressing issues in public diplomacy and public communication at the Maxwell School's home in Washington, DC, the Center for Strategic and International Studies. Exit requirements include demonstrating proficiency in a foreign language.

#### Required courses at the S.I. Newhouse School of Public Communications

##### Communications

**COM 698 - Media Law 3 credit(s)**

##### Graphic Design

**GRA 617 - Visual Communications Theory  
and Practice 3 credit(s)**

##### Public Relations

**PRL 602 - Introduction to Public Diplomacy  
and Communications 3 credit(s)**

**PRL 605 - Public Relations Theory 3  
credit(s)**

**PRL 607 - Advanced Public Diplomacy 3  
credit(s)**

**PRL 608 - Public Relations Writing 3  
credit(s)**

**PRL 611 - Public Relations Research 3  
credit(s)**

**PRL 615 - Public Relations Campaign  
Planning & Execution 3 credit(s)**

**PRL 725 - Public Relations Management 3  
credit(s)**

**PRL 735 - Public Relations Practicum 3  
credit(s)**

#### Required Courses at the Maxwell School of Citizenship and Public Affairs

##### Public Administration and International Affairs

**PAI 704 - Quantitative Skills in  
International Relations 3 credit(s)**

**PAI 706 - International Relations Capstone  
Seminar 1 credit(s)**

**PAI 708 - Issues for 21st Century Public  
Diplomacy 3 credit(s)**

**PAI 709 - Research Consultancy in Public  
Diplomacy 3 credit(s)**

**PAI 710 - International Actors and Issues  
3 credit(s)**

**PAI 720 - Principles of Economics 3  
credit(s)**

#### Other Required Courses:

Summer off-campus internship  
program (and career track course) 6  
credits

Career Track Course 3 credits

#### International Relations Signature Course; Choose One:

**ANT 707 - Culture in World Affairs 3  
credit(s)** or

**PAI 707 - Culture in World Affairs 3  
credit(s)** or

**MES 707 - Culture in World Affairs 3  
credit(s)**

**ECN 610 - Special Topics in Economics 3  
credit(s)** Economic Dimensions of Global  
Power or

**PAI 716 - Economic Dimensions of Global  
Power 3 credit(s)**

**GEO 606 - Development and Sustainability  
3 credit(s)**

**HST 645 - History of International  
Relations 3 credit(s)**

**PSC 783 - Comparative Foreign Policy 3  
credit(s)**

Total: 58 credits

#### Certificate of Advanced Study

#### Civil Society Organizations, CAS

#### Contact:

Tosca Bruno-van Vijfeijken, [tmbruno@maxwell.syr.edu](mailto:tmbruno@maxwell.syr.edu)

This certificate is designed for students aiming to prepare themselves as professionals in the expanding field of non-governmental organizations and for students whose research interests focus on the roles of non-state actors in global civil society.



## GRADUATE COURSE CATALOG

This certificate is based on 15 hours of coursework that includes a foundational course, discipline-specific coursework, an internship/fieldwork requirement, and a proseminar.

### Foundational Perspectives Course (3 credits)

Take one of the following courses, or another course approved by the director of the certificate program:

**ANT 707 - Culture in World Affairs 3 credit(s)**

**PAI 748 - Seminar on Nonprofit Management 3 credit(s)**

**PAI 765 - Humanitarian Action: Challenges, Responses, Results 3 credit(s)**

**PAI 763 - NGO Management in Developing and Transitioning Countries 3 credit(s)**

### Discipline-Specific Coursework (6 credits)

The student, in consultation with the program director, must complete at least 6 credits of discipline specific coursework. To fulfill this requirement, the student will choose courses that are included in the program (the TNGO's course listings) or, with approval, they may draw upon graduate courses offered in their own department which are relevant to the topics of non-state actors and civil society or which help them to develop research skills in this area.

### Internship/Fieldwork Requirement (3 credits)

Students must either participate in an internship program with a non-governmental organization or engage in research field work (in this case they would need to register for an independent study course) in an organization, before completing the certificate program. In either case the program director must approve the internship or fieldwork proposal as being relevant to the certificate program. MPA students may use the MPA capstone projects to fulfill their fieldwork/internship requirement.

### Proseminar (3 credits)

The course (PAI 713 - Governance and Global Civil Society) will cover the wide range of perspectives and literatures on global civil society organizations and transnational NGOs and attempt to integrate these literatures through critical analysis. The course is designed to familiarize students with the organizational challenges facing these actors (coordination, accountability, impact assessment) as well as with the functions they perform.

### Administration

The Certificate Program is administered by the Moynihan Institute of Global Affairs in the Maxwell School; the program's director is Prof. Margaret Hermann. She can be reached at [mgherman@maxwell.syr.edu](mailto:mgherman@maxwell.syr.edu). Tosca Bruno-van Vijfeijken, Director for Education and Practitioner

Engagement for the Transnational NGO Initiative at Moynihan deals with administrative certificate issues and can be reached at [tmbruno@maxwell.syr.edu](mailto:tmbruno@maxwell.syr.edu).

### Conflict Resolution, CAS

#### Certificate Requirements

The 12-credit, graduate-level certificate is an educational program that allows students to engage in more in-depth study of conflict theory, concepts, and skills. To earn the certificate, students complete a required 3-credit course in the Fundamentals of Conflict Studies and 9 additional credits of graduate coursework selected from a list of accepted courses. Students may complete a general program of study, or they may concentrate their classes in one of five specialized areas of study: (1) Applied Dispute Resolution and Conflict Management; (2) Advocacy and Social Movements; (3) Collaborative Governance; (4) Environmental Public Participation and Conflict; or (5) Transnational Conflicts.

Students already in a graduate program earn the Certificate as part of their master's or doctoral degree, and the Certificate is awarded concurrently with the degree. Mid-career managers may complete the Certificate as an independent graduate program.

Questions about certificate paperwork contact PARCC's Records and Publications Coordinator, phone 315.443.2367, <mailto:datooole@maxwell.syr.edu>.

### E-Government Management and Leadership, CAS

#### Contact:

Margaret Lane, Asst. Director of Executive Education, 315-443-8708

<http://ischool.syr.edu/future/cas/egov.aspx>

#### Certificate Requirement

The E-Government Management and Leadership Certificate of Advance Study is a 12-credit graduate-level certificate designed for students currently pursuing another graduate degree or as

post-baccalaureate work. The CAS is organized by two broad thematic areas:

leadership and management of information and communication technology applications found in public organization E-government systems, and

technical design aspects of E-government in public organizations. There are two required courses for this degree:

**IST 711 - e-Government 3 credit(s)**

**PAI 895 - Mid-career Training Group 1-3 credit(s)**

### Econometrics, CAS

#### Contact:

Pinyuen Chen ([pinchen@syr.edu](mailto:pinchen@syr.edu))

The application of statistics to economics is commonly called econometrics. Statistics and econometrics have become more closely associated as scholars and practitioners in both areas have learned from each other and adopted ideas learned in the other area. Given this convergence, a certificate offered by Syracuse University that requires knowledge of the contributions of both disciplines is both timely and appropriate.

#### Certificate Requirements

To obtain the certificate a student must successfully complete

**ECN 621 - Econometrics I 3 credit(s)**

**ECN 622 - Econometrics II 3 credit(s)**

**ECN 720 - Topics in Econometrics 3 credit(s)**

**MAT 651 - Probability and Statistics I 3 credit(s)**

**MAT 652 - Probability and Statistics II 3 credit(s)**

### European Union & Contemporary Europe, CAS

Margaret G. Hermann  
Professor of Political Science  
and Gerald B. and Daphna Cramer Professor of Global Affairs Director,  
Moynihan Institute of Global Affairs

Office: 345 Eggers Hall  
Telephone: 315-443-4022  
Fax: 315-443-9085  
E-mail: [mgherman@maxwell.syr.edu](mailto:mgherman@maxwell.syr.edu)

The Certificate of Advanced Study in the

## GRADUATE COURSE CATALOG

European Union (EU) and Contemporary Europe is available to students in all professional and doctoral programs at Syracuse University who are looking to supplement their degree with a strong foundation in this region's politics and culture or to prepare themselves for a career involving specialization in this region. In completing the certificate program, students are required to take at least 12 credit hours of study focused on the region, including one of the required courses and nine credits from a set of approved courses and/or approved other activities such as internships, independent study or capstone experiences. For more information, visit the program website:

[http://www.maxwell.syr.edu/moynihan/merc/Graduate\\_Certificate\\_in\\_the\\_EU\\_and\\_Contemporary\\_Europe/](http://www.maxwell.syr.edu/moynihan/merc/Graduate_Certificate_in_the_EU_and_Contemporary_Europe/)

### Admission:

Admission to this certificate program is open to all graduate students enrolled in Syracuse University interested in learning more about and acquiring a specialization in the European Union and contemporary Europe. Interested students are encouraged to interact with the director of the certificate program early in their tenure to develop a program of study as well as to complete the Graduate School's Internal Admission form enrolling in the program.

### Program Requirements:

Twelve credits in four courses must be earned to be eligible for the certificate. These must include:

The choice of one of the required courses:

**PSC 756 - Politics of the European Union 3 credit(s)**

**PSC 600 - Selected Topics 1-6 credit(s)** The EU and Beyond: Identity, Politics, and the New Europe \*

**ANT 670 - Experience Credit 1-6 credit(s)** The Culture and Politics of Reconciliation in Central Europe \*\*

HUM 670 - The Culture and Politics of Reconciliation in Central Europe \*\*

**SOC 670 - Experience Credit 1-6 credit(s)** The Culture and Politics of Reconciliation in Central Europe \*\*

**Elective Courses and/or Approved Other Activities**

Nine credits from a set of elective courses and/or approved other activities such as internships, independent study, or capstone experiences.

Electives:

**ANT 629 - Transformation of Eastern Europe 3 credit(s)**

**ANT 673 - Peace and Conflict in the Balkans: Anthropological Perspectives 3 credit(s)** or

**PAI 730 - Problems in Public Administration 1-3 credit(s)**

**ANT 701 - Seminar on Multilateral Peacekeeping 3 credit(s)** or

**PAI 701 - Seminar on Multilateral Peacekeeping 3 credit(s)**

**FRE 600 - Selected Topics 1-6 credit(s)** Contemporary France in Literature & Film \*

FRE 600 - Selected Topics 1-3 credit(s)

**GER 600 - Selected Topics 1-6 credit(s)**

**HST 735 - Readings and Research in European History 3 credit(s)**

**LAW 910 - Law in London: Clinical Internship 6 credit(s) \*\*\***

**PHI 640 - Continental Philosophy of Religion 3 credit(s)** or

**REL 660 - Continental Philosophy of Religion 3 credit(s)**

**PAI 715 - Topics in Global Development 3 credit(s)** Issues in Global Economic and Financial Security \*\*\*\*

PAI 715 - Topics in Global Development 3 credit(s) International Economic Negotiations \*\*\*\*

PAI 715 - Topics in Global Development 3 credit(s) Statecraft and Smart Power in the Digital Era \*\*\*\*

**PAI 727 - Responding to Proliferation of Weapons of Mass Destruction 3 credit(s)**

**PAI 788 - Global Issues: Drugs, Crime and Terrorism 3 credit(s)**

**PAI 716 - Economic Dimensions of Global Power 3 credit(s)** or

**ECN 610 - Special Topics in Economics 3 credit(s)** Economic Dimensions of Global Power

**PSC 769 - Comparative Parties and Politics 3 credit(s)**

**PSC 785 - Comparative Civil-Military Relations 3 credit(s)**

**PSC 786 - Russian and Post-Soviet Politics 3 credit(s)**

**PSC 788 - Political Leadership 3 credit(s)**

**PSC 700 - Selected Topics 1-6 credit(s)** Crisis Management or

**PAI 700 - Selected Topics 1-6 credit(s)** Crisis Management

**PSC 600 - Selected Topics 1-6 credit(s)** European National and International Conflict: What Alternatives to Violence \*

PSC 600 - Selected Topics 1-3 credit(s) European Human Rights \*

**SPA 653 - Sinner and Saints in 19th and 20th Century Spanish Literature and Film 3 credit(s)**

**SPA 658 - Narrative and Film in Spain (1940 to the Present) 3 credit(s)**

Note:

\*Offered during Summer at the University's Strasbourg Center in France.

\*\*Offered during Summer in Strasbourg, Berlin, and Wrocław.

\*\*\*Offered during Summer in London.

\*\*\*\*Offered during Fall at the University's Washington, DC Center.

### Credits Towards the Certificate

In addition to these classes, students may also earn credits towards the Certificate in the following ways:

Students can take a maximum of six-credit hours in any of the regional languages offered at the University at the 600 level. Turkish, Portuguese, and Polish are also considered regional languages in addition to those more generally considered when focusing on Europe.

Students can take a maximum of three-credit hours for an internship experience in Europe or for the completion of a capstone course that focuses on a topic related to contemporary Europe or the EU (with the approval of the Director of the Certificate Program).

## Health Services Management and Policy, CAS

### Contact:

Thomas Dennison, Director  
thdennison@maxwell.syr.edu

### Major Requirements

The Certificate is a 12-credit program open to mid-career professionals who require a policy background to operate effectively in the dynamic

health care sector. The certificate is earned after completion of two required graduate courses (6 credits) in health policy and two electives (6 credits) selected from approved courses offered by participating colleges and schools within the University in such areas as health and social policy, health law, demography, management, and economics. The culmination of the certificate is a capstone experience that may be a research paper or a supervised field experience that concludes with the development of a written paper.

This program is designed for two semesters of study and may be pursued independent of, or as part of, a master's or Ph.D. program. All courses may be applied to the EMPA or the EMIR degree. For those pursuing the certificate independently of another degree program, the capstone does not earn additional credit.

**Two required courses:**

**PAI 782 - Health Services Management 3 credit(s)**

**PAI 783 - The Changing American Health Care System 3 credit(s)**

**Two approved elective courses:**

Offered by participating schools and colleges within the University in such areas as health and social policy, health law, demography, management, and economics

## Information, Technology, Policy and Management, CAS

### Contact:

Stuart Thorson - thorson@syr.edu

### Certificate Requirements

The 12-credit certificate of advanced study in Information, Technology, Policy and Management combines the resources of Maxwell and the University's School of Information Studies and College of Engineering and Computer Science. The certificate is designed to provide and enhanced, integrated curriculum for graduate students seeking careers related to information technology.

The 12 credits must consist of one core course in each of the participating colleges (ECS, IST and MAX - 9 credits total) and one elective course from the student's home college (3 credits total). Student must be admitted to a department in at least one of the following colleges: ECS, IST, or MAX.

## Latin American Studies, CAS

Program on Latin America and the Caribbean  
346 Eggers Hall  
315.443.9467

### Certificate Requirements

This certificate certifies successful completion of 12 credits of graduate courses from a variety of disciplines related to Latin American themes. For a course to be eligible for the PLACA Certificate, the PLACA director must agree that its Latin American content is at least 50% of the overall course content.

Interested students are encouraged to interact with the Director of the Certificate Program early in their tenure to develop a program of study. Once you are approved, you will need to fill out several forms such as the Graduate School's Internal Admission form to enroll in the program.

In order to receive the certificate, students must complete the 12-credit hours of coursework and earn a cumulative grade point average of at least 3.0 in these courses and successfully complete the degree program in their primary field.

The dates and deadlines form provides specific deadlines by which forms must be complete. The Program of Study must be completed and signed by your advisor and the director of PLACA.

## Leadership of International and Non-Governmental Organizations, CAS

Steve Lux, Director, Executive Education; Part-time Professor  
219 Maxwell Hall  
(315) 443-3759  
sjlux@maxwell.syr.edu

### Certificate Requirements

The Certificate of Advanced Study in Leadership of International and Non-Governmental Organizations is a 12-credit program open to mid-career professionals who have an interest in the variety of leadership issues facing international and non-governmental organizations (NGOs). It requires completion of a cluster of four graduate courses organized by three thematic areas:

- the operating context and key actors
- organizational leadership
- policy context and analysis.

There is one required public administration course. With careful guidance, students

select the remaining three courses from the professional programs in public administration and international relations as well as the social science departments in the Maxwell School. To complete the certificate, students take at least one course in each thematic area, based on professional need or substantive interest. Students must seek approval from the faculty advisor about the proposed courses for the certificate prior to enrollment. This program may be pursued independent of, or as part of, a master's or Ph.D. program. All courses may be applied to EMPA and EMIR degrees.

## Middle Eastern Affairs, CAS

### Program Director:

Yüksel Sezgin  
100 Eggers Hall  
315-443-4431  
mes@maxwell.syr.edu

### Faculty

Ahmed E. Abdel-Meguid, Carol Babiracki, 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, Dana M. Olwan, Kara Richardson, Robert A. Rubinstein, Ossama "Sam" Salem, Yüksel Sezgin, James W. Watts

The Certificate of Advanced Studies in Middle Eastern Affairs is available to Syracuse University students in all graduate programs who are looking to supplement their degree with a strong foundation in the region's culture and politics or to prepare for a career involving regional specialization. Students are required to complete at least twelve credits: a single three-credit required course and nine credits in the form of approved electives chosen from affiliated departments within the University and/or approved extracurricular experience.

## Obtaining the Certificate

Students interested in obtaining the Certificate of Advanced Studies in Middle Eastern Affairs should consult the list of required and elective courses and other credit-bearing activities. Application for the Certificate should be made by first consulting with the student's Faculty Advisor who will determine whether the student can pursue the Certificate consistent with the requirements

## GRADUATE COURSE CATALOG

of his/her degree program, and then by speaking with the Director of the Certificate Program, Professor Yüksel Sezgin.

### Administrative Steps

Two forms must be filled out and delivered to the Middle Eastern Studies Program to complete this application stage:

Students who have completed at least six credits of related coursework in Middle Eastern Studies should complete the Graduate Enrollment Internal Admission Application form to receive admission to the program. Once completed, the form should be submitted to Ms. Amy Marsden at the Moynihan Institute (346 Eggers Hall) who will sign for the Middle Eastern Studies Program and pass it on to the Graduate Admissions office (621 Skytop Road). Please note that the "Program Code" for the certificate in Middle Eastern Affairs is MI17CAS.

The Program of Study form has to be signed by the student's advisor and by Professor Yüksel Sezgin (100 Eggers Hall) who is the Director of the Middle Eastern Studies Program. The Program of Study will be held by Ms. Amy Marsden until all the requirements for the certificate (twelve credits) are complete. Ms. Marsden will submit this form to the Graduate Certification Office (107 Steele Hall) in a timely manner before the student's expected graduation date so that the documents and information can be gathered as the graduation date approaches.

Please also remember that a Graduate Diploma Request Form must be completed through MySlice during the semester the student will graduate. Students must complete a separate form for each of their degree programs as each results in its own degree date and diploma.

The Director will recommend granting the Certificate to students who have met all of the requirements (while maintaining a cumulative GPA of at least 3.0 for all classes taken toward it) and who are in good standing in their graduate school or department.

### Program Requirements

Twelve credits in four courses must be earned to be eligible for the certificate. These must include:

#### 1. The choice of one of the program's two foundational graduate-level courses

(substitutions may be made in some cases with permission from the Director):

**MES 682 - Social Theory and Middle East Politics 3 credit(s)**

**MES 644 - Israel and Palestine: Historical Approaches 3 credit(s)**

#### 2. Nine Total Elective Credits

Nine total elective credits chosen from the list of affiliated classes, the University's language offerings, experiential education, and study abroad. The following classes have already been approved by the program:

**MES 668 - Middle East in Anthropological Perspective 3 credit(s)**

**MES 707 - Culture in World Affairs 3 credit(s)**

**ARC 735 - Islamic Architecture 3 credit(s)**

**MES 644 - Israel and Palestine: Historical Approaches 3 credit(s)**

**MES 682 - Social Theory and Middle East Politics 3 credit(s)**

**MES 684 - International Relations of the Middle East 3 credit(s)**

**REL 628 - Muslim Rituals, Practices, and Performances 3 credit(s)**

**REL 676 - Religion and Jewish Literature 3 credit(s)**

**REL 607 - Ancient Religious Rhetoric 3 credit(s)**

**REL 625 - Pluralism in Islam 3 credit(s)**

#### Credits Towards the Certificate

In addition to these affiliated classes, students may also earn credits towards the Certificate in the following ways:

A maximum of six credits of any regional language courses at the 600 level (i.e., 620).

Extracurricular experience (i.e., internships) that may count for between one and three credits (with the approval of the Program Director).

A maximum of six credits of graduate-level Middle East-related independent study or special topics courses.

A maximum of six credits of relevant, departmentally-approved coursework taken at another university. The Middle Eastern Studies Program, the Maxwell School and Syracuse University presently have established student exchange relationships with the American University in Cairo (Egypt),

Bahçeşehir University (Turkey), Bogaziçi University (Istanbul, Turkey), An Najah University (Nablus, Palestine), and the Interdisciplinary Center (Herzliya, Israel).

Prerequisite:

In order to enroll in the Certificate program, you must be a matriculated Syracuse University graduate student in good standing and have completed at least six credits of coursework in related classes.

#### Extracurricular Opportunities:

Internships: Graduate students can receive a maximum of three credits for an internship in any governmental/non-governmental organization based either in the region or outside which deals strongly with the Middle East.

Fieldwork: The Moynihan Institute of Global Affairs at the Maxwell School usually allocates one or two annual summer research grants for Maxwell doctoral students. The purpose of the award is to provide students the opportunity to gather data, undergo advanced language training, and increase competitiveness of future proposals for funding. Grants range from \$1,000 to \$3,000 and will be assigned on merit. Grant awardees register and receive credit for an independent study course (typically three credits). Students who have secured outside sources of funding may also submit proposals for fieldwork through independent study.

Other Awards: MESP Best Graduate Student Essay Prize is awarded annually to the best essay by a graduate student at the University dealing with any aspect of the Middle East. The author of the winning paper is presented with a certificate and a \$500 prize.

### Postconflict Reconstruction, CAS

Director, William C. Banks, 402 McNaughton Hall, 315-443-2284

The Certificate of Advanced Study in Postconflict Reconstruction (PCR) provides students a documented concentration and familiarization with the major aspects of PCR, the various dimensions and goals of postconflict work, the types of actors that conduct it, the trade-offs and dilemmas they face, and the lessons learned from its application across various settings. This CAS offers the analytical tools to help students be successful in public service careers in the fields of PCR and international development.

12 credits of PCR-related coursework give students provide:

Analytical techniques that are tailored for work in international development communities.

A better understanding of how the US and the international community can effectively participate in rebuilding shattered societies.

New ways of thinking about the nature of conflict, cooperation, and national security.

## GRADUATE COURSE CATALOG

Graduate and law CAS candidates complete 12 credits (three courses and one capstone project or internship) through a sequence of specialized, interdisciplinary coursework and coordinated professional development experiences at SU's Maxwell School, College of Law, Whitman School, and Newhouse School.

Areas of Specialization:

Building Institutional Capacity

Building the Rule of Law

Providing Humanitarian Relief

Assuring Security and Demilitarizing Politics

Promoting Reconciliation and Peacebuilding

Building Civil Society

Revitalizing Postconflict Economies

Questions about the Program can be directed to Keli Perrin (kaperrin@law.syr.edu) or by calling INSCT at 315.443.2284.

### Certificate Requirements

1) Base Course (Mandatory/3 credits):

**PAI 719 - Fundamentals of Post-Conflict Reconstruction 3 credit(s)**

2) Secondary Core Course (Choose one/3 credits):

**ECN 661 - Economics of Development 3 credit(s)**

LAW 871 - Foreign Relations Law

**PAI 601 - Fundamentals of Conflict Studies 3 credit(s)**

**PAI 765 - Humanitarian Action: Challenges, Responses, Results 3 credit(s)**

**ANT 701 - Seminar on Multilateral Peacekeeping 3 credit(s)**

3) PCR Capstone Project/ Internship:

**PAI 996 - Master's Project Paper 3 credit(s)** EMPA/EMIR Masters Project

**PAI 670 - Experience Credit 1-6 credit(s)** or

PAI 690 - Experience Credit

LAW 991 - Experience Credit or

LAW 997 - Experience Credit

PAI 670 - Experience Credit 1-6 credit(s) Global Internship IR Students or

**PAI 711 - Practicum in International Organizations 6 credit(s)** Global Internship

IR Students or

**PAI 715 - Topics in Global Development 3 credit(s)** Global Internship IR Students

**PAI 752 - MPA Workshop 3 credit(s)**

**PAI 700 - Selected Topics 1-6 credit(s)** Washington Practicum

### Public Administration, CAS

#### Contact:

Margaret Lane, Asst. Director, Executive Education  
315-443-8708

#### Certificate Requirements

The certificate of advanced study (CAS) in Public Administration is a 12-credit certificate, and is for midcareer professional who cannot leave work to complete the entire EMPA but still desire a rigorous educational experience focusing on significant elements of public administration. The certificate can be completed in two ways: as a full-time student for one semester (roughly 15 weeks), or on a part-time basis completing the course work in 1-3 years.

To complete the certificate, students are required to complete 12-credits of course work from Public Administration course offerings (recognized by a PAI prefix), including one required course, PAI 895 - Mid-career Training Group Managerial Leadership. Most individuals taking the certificate state an interest in improving their management and leadership skills or an interest in developing concrete knowledge in a specific policy area. This certificate can be concurrently pursued with the EMIR degree.

### Public Health, CAS

#### Contact:

Michael Wasylenko, PhD.  
Senior Associate Dean, Maxwell School of Citizenship and Public Affairs  
The CASPH is a 5 course (15-credit hour) program of study. The Certificate Program is organized to offer a continuous integrated core curriculum centered around the public health competencies. The curriculum has been designed to reflect the interrelationship between public health practice and research and designed to train current and future practitioners and researchers in the core public health functions. The abbreviated training allows interested students, who are either unable to complete a master degree, yet interested in augmenting on-the-job training or supplementing an advanced degree with core public health principles and practices, the opportunity to

acquire the necessary training to manage public health problems.

All five (5) of the required courses are existing core Master of Public Health (MPH) courses required for degree seeking students.

#### Curriculum/Structure

The certificate is designed for part-time study to accommodate the working professional. The certificate can be completed within a three semester (Fall, Spring, Summer) block with admission during the fall semester. All requirements for the certificate program must be completed within a period of five years from entry into the program.

The five required courses are:

**MPH 602 - Principles of Biostatistics 3 credit(s)**

**MPH 603 - Principles of Environmental Health 3 credit(s)**

**MPH 601 - Principles of Epidemiology 3 credit(s)**

**MPH 604 - Social and Behavioral Dimensions of Public Health 3 credit(s)**

**MPH 607 - Public Health Administration 3 credit(s)**

### Public Infrastructure Management and Leadership, CAS

#### Department Chair:

Dr. Ossama "Sam" Salem, 151 Link Hall,  
omsalem@syr.edu, 315-443-2311

#### Program Description

The College of Engineering and Computer Science (ECS), in collaboration with the Department of Public Administration (PA) and the Executive Education Program (Exec Ed) within The Maxwell School (Maxwell) at Syracuse University have created a joint 15-credit certificate program entitled the Joint Certificate of Advanced Studies in Public Infrastructure Management and Leadership (CAS-PIML). This certificate program is geared towards mid-career professionals that are interested in building on their body of experience and expanding their skills and knowledge in infrastructure planning, engineering, management and administration through course work that is relevant to their knowledge, interests, and needs.

The CAS-PIML will deliver a certificate to students in both ECS and Maxwell that

## GRADUATE COURSE CATALOG

addresses the planning, design, construction, maintenance, security, capital and operating budgets, environmental and social sustainability impacts and public policy considerations, of public infrastructure. Students will develop skills and knowledge that will assure awareness and competency for functional, financial, environmental and social sustainability concerns of our public infrastructure. In this context, public infrastructure is broadly defined as physical service systems, i.e. water, storm water and waste water systems, transportation, electrical power distribution and telecommunications. The certificate program will be enhanced by on-going speaker programs, executive workshops, and seminars. It will be open to students in both colleges. Applications from students seeking only this certificate will also be considered. The application process will be administered by the Executive Education Program of the Maxwell School.

### Certificate Requirement

The CAS-PIML will allow mid-career students interested in Public Infrastructure Management an opportunity to complete a 15-credit program, capitalizing on the numerous strengths within ECS, combined with the Public Administration and Executive Education programs within the Maxwell School of Citizenship and Public Affairs. In the program, they will combine multi-disciplinary academic coursework with the real-world strategy and problem-solving skills necessary for today's leaders in complex public administration and utility environments. The degree program will integrate core courses with a career-track elective to provide a solid, yet dynamic and pertinent foundation for advanced studies in the technical and practical challenges of the development and oversight of public infrastructure - including water and wastewater systems, transportation, communications and power.

### Core Courses (12 credits)

**PAI 895 - Mid-career Training Group 1-3 credit(s)**

**PAI 734 - Public Budgeting 3 credit(s)**

**PAI 731 - Financial Management in State and Local Governments 3 credit(s)**

**MAE 548 - Engineering Economics and Technology Valuation 3 credit(s)**

**ECS 636 - Sustainable Development and Infrastructure Management 3 credit(s)**

### Career Elective (3 credits):

One course selected from the list below, or approved by the program director

**CIE 570 - Water&Wastewtr Trtmnt Des 3**

### credit(s)

**CIE 601 - Construction Engineering and Project Management 3 credit(s)**

**CIE 643 - Transportation Engineering 3 credit(s)**

**CIE 678 - Rehabilitation of Civil Infrastructure 3 credit(s)**

**PAI 601 - Fundamentals of Conflict Studies 3 credit(s)**

**PAI 709 - Research Consultancy in Public Diplomacy 3 credit(s)**

**PAI 730 - Problems in Public Administration 1-3 credit(s)** Managing Individual, Group, and Systemic Conflicts

PAI 730 Environmental Conflicts and Collaboration

**PAI 757 - Economics of Development 3 credit(s)**

**PAI 777 - Economics of Environmental Policy 3 credit(s)**

### Total Credits: 15

Total 15 credits leading to a Certificate of Advanced Study in Public Infrastructure Management and Leadership

## Public Management and Policy, CAS

### Contact:

Christine Omolino - comolino@maxwell.syr.edu  
215 Eggers Hall

### Certificate Requirements

This advanced certificate is open to concurrent graduate students interested in working for or closely with public and non-profit organizations and whose primary fields of study are in engineering, science and other technical areas. The certificate requires students to take a total of 12 credits (four courses).

Two foundation courses must be selected from the following:

**PAI 712 - Public Organizations and Management 3 credit(s)**

**PAI 734 - Public Budgeting 3 credit(s)**

**PAI 755 - Public Administration and Democracy 3 credit(s)**

### Additional Information

The remaining two courses will be chosen from a

large selection of "public management" or "public policy" focused courses offered by the Department of Public Administration and International Affairs.

## School District Business Leadership (Professional Certification), CAS

### Contact:

Joseph Shedd, 150 Huntington Hall, 315 443-2685, jbshedd@syr.edu

The School District Business Leadership C.A.S. program (SDBL) provides a comprehensive program in school business management provided jointly by the School of Education's Department of Teaching and Leadership and the Maxwell School of Public Affairs Department of Public Administration. The program leads to New York State certification as a School District Business Leader.

School district business leaders are typically the chief financial officers of school districts and often manage a broad range of non-instructional functions, such as budgeting, accounting, facilities management, information technology, procurement, human resources (personnel) management, labor negotiations, food service and transportation. Besides meeting the requirements for SDBL certification in New York State, the program provides coursework and field experiences that prepare candidates to fulfill all professional functions of school business management specified by the Association of School Business Officials (ASBO). Besides an introductory course in Issues and Practices in School District Leadership, the program includes coursework in six areas of study:

Financial management and management of ancillary services.

Education leadership and management.

Education law.

Human resource management.

Microeconomics.

Program evaluation.

### Certificate Requirements

A required practicum experience (a 600-hour clinical internship, typically spread over spring, summer and early fall semesters) completes the course structure of the program.

To receive certification as a school district business leader a student must have 60 graduate credits and a Master's degree. The SDBL program itself consists of courses (including the internship) accounting for 37 of these graduate credits. The

## GRADUATE COURSE CATALOG

number of courses that a student is required to take varies depending on her/his previous graduate experience. Candidates who have either completed or are concurrently pursuing a Certificate of Advanced Study in Educational Leadership or a Master's of Public Administration are likely to have already completed some courses required under the SDBL program. Each student will take at least thirteen (13) graduate credits toward the SDBL that are not included in some other program. Certification and (under most circumstances) program completion also require that the candidate pass a New York State administered examination in School District Business Leadership.

The following courses are required by the program. (We have marked below those that are either required or elective courses in our CAS program in educational leadership for school district and school building leaders (CAS) or our MPA program in public administration (MPA), which candidates may already have taken or may be taking simultaneously to secure those degrees.):

**EDA 752 - Leadership for Organizational and Institutional Development 3 credit(s)** (CAS)

**EDA 762 - Leadership for Inclusive Schooling 3 credit(s)** (CAS)

**EDA 735 - Human Resource Management in Public Education 3 credit(s)**

**EDA 782 - Issues and Practices in District Leadership 3 credit(s)** (CAS)

**EDA 792 - Legal Basis of Education 3 credit(s)** (CAS)

**IDE 641 - Techniques in Educational Evaluation 3 credit(s)**

**PAI 709 - Research Consultancy in Public Diplomacy 3 credit(s)** (MPA)

**PAI 722 - Quantitative Analysis 3 credit(s)** (MPA)

**PAI 723 - Economics for Public Decisions 3 credit(s)** (MPA)

**PAI 731 - Financial Management in State and Local Governments 3 credit(s)** (MPA)

**PAI 735 - State and Local Government Finance 3 credit(s)** (MPA)

**PAI 791 - Education Financial Administration 3 credit(s)**

**PAI 792 - Managing School District Non-Instructional Functions 3 credit(s)**

**EDA 899 - Internship in Educational Administration and Supervision 3-4 credit(s)** (This internship seminar is

completed at the end of the program)

### Security Studies, CAS

Director, William C. Banks, Dineen Hall, Suite 300, College of Law, 315-443-2284

Questions about the Program can be directed to Keli Perrin (kaperrin@law.syr.edu) or by calling IN SCT at 315.443.2284.

#### Certificate Requirements

Students who have earned a Certificate of Advanced Study (CAS) in Security Studies are well-prepared for careers in the field of national and international security and counterterrorism.

12 credits in security-related coursework give students a solid understanding of:

US national security law policymaking pre- and post-9/11.

The diverse national security threats, including drugs, crime, terrorism, and ethnic conflicts.

The nature of international security environments, regimes, and institutions.

The US and international responses to terrorism, including law enforcement, military, intelligence, and diplomatic approaches.

The challenges of homeland security preparedness and response.

The interdisciplinary nature of the CAS complements students' professional or doctoral degrees and enriches their specific field of study or research interest. Certificate recipients collaborate with students and faculty from a range of disciplines, including public administration, international relations, political science, law, history, and communications.

Furthermore, students benefit from the expertise of IN SCT faculty in military planning and operations, global counterterrorism and arms control policy, counter-proliferation policy, diplomacy and international relations, mass communication, terrorist methods and psychology, history, law, and economics. This breadth and depth gives students an opportunity to employ, and appreciate the need for, an interdisciplinary approach to the security problems we face today.

Candidates for the CAS take six credits (two courses) chosen from five required courses and six credits (two courses) chosen from a wide range of elective courses.

**Required Courses (Choose two course/6 credits):**

**PSC 785 - Comparative Civil-Military Relations 3 credit(s)**

**PAI 719 - Fundamentals of Post-Conflict**

**Reconstruction 3 credit(s)**

**PAI 730 - Problems in Public Administration 1-3 credit(s)** Homeland Security: Federal Policy & Implementation Challenges

**PAI 717 - International Security 3 credit(s)**

**LAW 700 - National Security Law 3 credit(s)**

PAI 730 - Problems in Public Administration US Defense Strategy & Military Operations

**PAI 718 - United States National Security: Defense and Foreign Policy 3 credit(s)**

**Elective Courses (6 credits)**

### South Asia Studies, CAS

#### Faculty

Carol Babiracki, Shobha K. Bhatia, Tej K. Bhatia, Himika Bhattacharya, Manan Desai, Tula Goenka, Ann G. Gold, Tazim R. Kassam, Radha Kumar, Prema Kurien, Chandra Talpade Mohanty, Romita Ray, Anoop Sadanandan, Farhana Sultana, Cecilia Van Hollen, Susan S. Wadley, Joanne P. Waghorne

#### Affiliated Faculty

Ahmed Abdel Meguid, Mehrzad Boroujerdi, Richard Breyer, Thomas Brutsaert, Gareth Fisher, Rashmi Gangamma, Roger Hallas, Devashish Mitra, S.P. Raj, Sudha Raj, Lars Rodseth, Kamala Ramadoss, Jaipaul Roopnarine, Yuksel Sezgin

#### Certificate Requirements

The Certificate of Advanced Study (CAS) in South Asia is available to Syracuse University students in all graduate programs who are looking to supplement their degree with an interdisciplinary approach to the cultures, politics, history, arts, and current events of this region. Students are required to complete at least twelve (12) credits.

Students matriculated in any MA or PhD program at Syracuse University and who have completed 12 graduate credit-hours in courses dealing with South Asia are eligible to apply to the Director of the South Asia Center for a "Certificate of Advanced Study in South Asia." The Director shall determine that the courses listed by the student meet the requirements for the Certificate. Graduate students may apply at any time after they are matriculated in a graduate program at SU, but it is advisable to wait until their final semester or until they have completed the 12 credit hours.

Candidates for the CAS must take

## GRADUATE COURSE CATALOG

one of the following courses:

**ANT 621 - Gender & Sexuality in South Asia 3 credit(s)** or

**SAS 621 - Language Training in Preparation for Research Using Hindi 3 credit(s)**

**ANT 625 - Problems in Anthropology of South Asia 3 credit(s)**

**ANT 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)** or

**SAS 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)** or

**PAI 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)**

**HIN 620 - Language Training in Preparation for Research Using Hindi 3 credit(s)**

**HST 775 - Readings and Research in South Asian History 3 credit(s)**

**REL 687 - Global Hinduism 3 credit(s)**

Candidates can choose three other courses from the list below:

**ANT 621 - Gender & Sexuality in South Asia 3 credit(s)** or

**SAS 621 - Language Training in Preparation for Research Using Hindi 3 credit(s)**

**ANT 625 - Problems in Anthropology of South Asia 3 credit(s)**

**ANT 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)** or

**SAS 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)** or

**PAI 626 - Cultures and Politics of Afghanistan and Pakistan 3 credit(s)**

**ANT 628 - Muslim Rituals, Practices, and Performances 3 credit(s)** \* or

**REL 628 - Muslim Rituals, Practices, and Performances 3 credit(s)** \*

**ANT 756 - Development Anthropology 3 credit(s)** \*

**ANT 764 - Gender and Globalization 3 credit(s)** \* or

**GEO 764 - Gender and Globalization 3 credit(s)** \* or

**WGS 764 - Gender and Globalization 3 credit(s)** \*

**HIN 620 - Language Training in Preparation**

**for Research Using Hindi 3 credit(s)**

**HST 715 - Readings and Research in American History 3 credit(s)**

**HST 775 - Readings and Research in South Asian History 3 credit(s)**

**LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)** \*

**LIN 681 - Global Communication Through World Englishes 3 credit(s)** \*

**PAI 707 - Culture in World Affairs 3 credit(s)** \*

**PAI 715 - Topics in Global Development 3 credit(s)** \*

**PAI 758 - Public Finance in Developing Areas 3 credit(s)** \*

**REL 621 - Teaching World Religions in Theory and Practice 3 credit(s)** \*

**REL 625 - Pluralism in Islam 3 credit(s)** \*

**REL 626 - Beyond the Veil: Gender Politics in Islam 3 credit(s)** \* or

SAS 626 - Cultures and Politics of Afghanistan and Pakistan Muslim Women Beyond the Veil \*

**REL 627 - Globalization and Religion: Processes and problems 3 credit(s)** \*

**REL 687 - Global Hinduism 3 credit(s)**

**REL 692 - Other People's Religions 3 credit(s)** \*

**REL 696 - Gender and Religion: Theory and Practice 3 credit(s)** \*

**REL 699 - Writing Religions and Cultures: Ethnographic Practice 3 credit(s)** \*

Note:

\*Some South Asian content is included (30% or more). Students may use these courses for the certificate only if they write their research paper on a South Asian topic.

## Anthropology

### ANT 600 - Selected Topics

**Maxwell School of Citizenship and Public Affairs**  
1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### ANT 611 - History of Anthropological Theory

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Main theoretical approaches to the study of the origin and development of society and culture: cultural evolutionists, functionalists, diffusionists, structuralists, and historicists.

### ANT 612 - Ethnology

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Upon sufficient interest  
Human societies in their many component parts: kinship, politics, social organization, religion, values, etc. Theoretical models most applicable to these differing topics.  
PREREQ: ANT 611

### ANT 614 - Cities, Spaces and Power

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Odd academic yr e.g. 2007-8  
Double Numbered with: ANT 414  
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 616 - Political Anthropology

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Double Numbered with: ANT 416  
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 617 - Economic Anthropology

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Contribution of anthropology to economic theory and the relevance of orthodox economics to cross-cultural and evolutionary studies of society.

### ANT 619 - Ritual Theory and Religious Practice

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: REL 619  
Survey and evaluation of major ritual theories, tested against a particular set of religious and cultural practices, such as those involving purification and pollutions, or holidays and festivals.



## GRADUATE COURSE CATALOG

### **ANT 620 - Readings, Research and Ethnography**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Every semester  
Individual or group readings and research on topics in ethnography. Student or group works with a faculty member and submits reports as individually arranged.  
Repeatable

### **ANT 621 - Gender & Sexuality in South Asia**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: SAS 622  
Double Numbered with: ANT 421  
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 624 - Negotiation: Theory and Practice**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring  
Double Numbered with: ANT 424  
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 625 - Problems in Anthropology of South Asia**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
One topic of theoretical concern to anthropologists dealing with South Asia, e.g., caste, kinship, village Hinduism, economics, urbanization, rural/urban networks.

### **ANT 626 - Cultures and Politics of Afghanistan and Pakistan**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: PAI 626, SAS 626  
Double Numbered with: ANT 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.

### **ANT 627 - Brazil: Anthropological Perspectives**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
Double Numbered with: ANT 427  
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 628 - Muslim Rituals, Practices, and Performances**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
Crosslisted with: REL 628  
Historical, cultural, and sociological analysis of pan-Islamic festivals and rituals. Local, culturally-specific, unofficial practices in Islam.

### **ANT 629 - Transformation of Eastern Europe**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
Double Numbered with: ANT 428  
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 631 - Method and Theory in Biological Anthropology**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring  
Mechanisms of human adaptation to environmental stress; emphasizing human variation. Cultural and biological modes of adaptation. Paradigmatic and methodological issues, with special emphasis on biocultural and contemporary approaches.

### **ANT 633 - Human Osteology**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: ANT 433  
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 634 - Anthropology of Death**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: ANT 434  
Death in anthropological perspective. Survey of

the many ways death has entered into the work of archaeologists, biological anthropologists, ethnographers and social theorists.

### **ANT 636 - Bioarchaeology**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: ANT 436  
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 641 - Anthropological Archaeology**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring  
Methodology and theory in prehistoric archaeology. Development of archaeological theory, design and execution of research. Application of archaeology to solving problems in culture change and development.

### **ANT 642 - Methods in Archaeology**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Odd academic yr e.g. 2007-8  
Double Numbered with: ANT 442  
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.

### **ANT 643 - Advanced Field Methods in Archaeology**

#### **Maxwell School of Citizenship and Public Affairs**

6 credit(s) Only during the summer  
Supervised training in excavating, organizing, coordinating, and directing research on an archaeological site.  
Repeatable

### **ANT 644 - Laboratory Analysis in Archaeology**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: ANT 444  
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.

### **ANT 645 - Public Policy and Archaeology**

#### **Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly

## GRADUATE COURSE CATALOG

Crosslisted with: NAT 645  
Double Numbered with: ANT 445  
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 646 - Caribbean Archaeology**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Double Numbered with: ANT 446  
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 647 - Archaeology of North America**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: NAT 647  
Double Numbered with: ANT 447  
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.

### **ANT 649 - World Heritage Sites**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: ANT 449  
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 651 - Classics in the Sociology of Religion and Morals**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: REL 651, SOC 651  
Classical sociological writings of Emile Durkheim and Max Weber and their contemporary significance.

### **ANT 652 - Anthropology and Public Policy**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Double Numbered with: ANT 452  
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 653 - Poverty, Policy, and Human Services**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Double Numbered with: ANT 453  
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 655 - Culture and AIDS**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: WGS 655  
Double Numbered with: ANT 455  
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 656 - Representations of Indigenous Peoples in Popular Culture**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: NAT 656  
Double Numbered with: ANT 456  
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 657 - Race in Latin America and the Caribbean**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Theoretical approaches to race; history of racial ideologies; how racial ideologies influence self-concepts and life chances; interactions of racial ideologies with expressive culture and religion; antiracism movements; state efforts to dismantle racial inequality; race and transnational migration.

### **ANT 659 - Contemporary Native North American Issues**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: NAT 659  
Double Numbered with: ANT 459  
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 661 - Museums and Native Americans**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: NAT 661  
Double Numbered with: ANT 461  
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 662 - Culture and Reproductive Health and Medicine**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: HTW 662  
Double Numbered with: ANT 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.

### **ANT 663 - Global Health**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Crosslisted with: HTW 663  
Double Numbered with: ANT 463  
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 665 - Critical Issues in Medical Anthropology**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Odd academic yr e.g. 2007-8  
Double Numbered with: ANT 465  
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 666 - Culture and Sexual Behavior**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Double Numbered with: ANT 466  
Cross-cultural patterns of dating and courtship, sexuality, marriage, fertility, and divorce from biosocial and medical perspectives. Additional work required of graduate students.

## GRADUATE COURSE CATALOG

### **ANT 667 - Culture and Mental Disorders**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: ANT 467  
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 668 - Middle East in Anthropological Perspective**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Crosslisted with: MES 668, PAI 668  
Double Numbered with: ANT 468  
Anthropology of the social, cultural, geographical, and political realities of the Middle East. Additional work required of graduate students.

### **ANT 669 - Medical Anthropology in Ecological Perspective**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Odd academic yr e.g. 2007-8  
Double Numbered with: ANT 469  
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 670 - Experience Credit**

#### ***Maxwell School of Citizenship and Public Affairs***

1-6 credit(s) Every semester  
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.  
Repeatable

### **ANT 672 - Language, Culture, and Society**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Crosslisted with: LIN 672, WGS 672  
Double Numbered with: ANT 472  
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 673 - Peace and Conflict in the Balkans: Anthropological Perspectives**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Double Numbered with: ANT 473

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 675 - Culture and Disputing**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Double Numbered with: ANT 475  
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 676 - Women, War and Peace**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: ANT 476  
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 677 - Culture and Conflict**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Double Numbered with: ANT 477  
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 679 - Anthropology of Global Transformations**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Double Numbered with: ANT 479  
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 681 - Ethnographic Techniques**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Odd academic yr e.g. 2007-8  
Double Numbered with: ANT 481  
Research methods and techniques in cultural anthropology. Participant observation,

interviewing, establishing rapport, research design, recording and analyzing field data, etc.

### **ANT 682 - Life Histories/Narratives**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Double Numbered with: ANT 482  
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 683 - Social Movement Theory**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Double Numbered with: ANT 483  
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 684 - Social Movement Research Methods**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Double Numbered with: ANT 484  
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 686 - Comparative Cultural Analysis: Africa**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Africa through social anthropology complemented by history. Discuss diverse societies to illustrate principles and features of societal life and organization. The major cultural focus is on West Africa, traditional society, colonial legacy, and change.

### **ANT 689 - Memory, Culture, Religion**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Crosslisted with: REL 689  
Collective memory and constructions of the past as cultural phenomena; the roles religious identities, values, and institutions play as individuals, communities, and nations recollect particular moments, eras, crises, and localities.

## GRADUATE COURSE CATALOG

### ANT 690 - Independent Study

#### *Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Every semester  
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. Repeatable

### ANT 691 - Critical Issues in the Study of Native Americans

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly  
Crosslisted with: REL 642  
Methodological issues related to studies of indigenous traditions and develops interpretive strategies for using literature about Native American religions.

### ANT 694 - Underground Railroad

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest  
Crosslisted with: AAS 634, HST 634  
Double Numbered with: ANT 494  
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 699 - Writing Religions and Cultures: Ethnographic Practice

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly  
Crosslisted with: REL 699  
A range of aims and strategies for writing ethnographies of religion in the multiple contexts of culture, history, and politics.

### ANT 700 - Selected Topics

#### *Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### ANT 701 - Seminar on Multilateral Peacekeeping

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly  
Crosslisted with: PAI 701  
One-week intensive course in New York City between fall and spring semesters with follow-up sessions in Syracuse. Combination of peacekeeping theory, analysis, and practice of operations. Speakers from United Nations, nongovernmental organizations, and U.S. government.

### ANT 707 - Culture in World Affairs

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring  
Crosslisted with: MES 707, PAI 707  
A systematic survey of the ways in which local, organizational, and transnational issues in world affairs are affected by culture.

### ANT 711 - Current Anthropological Theory

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring  
Theoretical issues of the past two decades. Includes feminism and anthropology. Reflexive and interpretive ethnography. Sociobiology versus culturology. Marxist anthropology.

### ANT 713 - Proposal Writing

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Only during the summer  
Crosslisted with: CAS 713  
A two-week workshop during which graduate students draft a proposal for dissertation or other research; includes extensive evaluation of ongoing drafts.

### ANT 741 - Archaeological Theory

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring  
In-depth examination of contemporary theory in archaeology and application to archaeological research. While focusing on processual approach, the course will examine critical, post-processual, structural, and symbolic archaeology.

### ANT 756 - Development Anthropology

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly  
Provides students of public administration with an overview of the use of sociocultural analysis in international development policy, planning, project implementation, impact analysis, monitoring, and evaluation. Political and ethical issues regarding development professionalism.

### ANT 764 - Gender and Globalization

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly  
Crosslisted with: GEO 764, WGS 764  
The impact of the increasing hypermobility of capital and culture flows across borders on gender relations.

### ANT 800 - Selected Topics

#### *Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### ANT 970 - Experience Credit

#### *Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Every semester  
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. Repeatable

### ANT 990 - Independent Study

#### *Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Every semester  
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. Repeatable

### ANT 997 - Masters Thesis

#### *Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Every semester  
Repeatable

### ANT 999 - Dissertation

#### *Maxwell School of Citizenship and Public Affairs*

1-15 credit(s) Every semester  
Repeatable

## Economics

### ECN 600 - Selected Topics

#### *Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. \* Repeatable

### ECN 601 - Survey Microeconomic Theory

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring  
Microeconomics. For graduates with little recent work in economics.

### ECN 602 - Survey Macroeconomic Theory

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Only during the summer  
Macroeconomics. For graduates with little recent work in economics.

### ECN 604 - Economics for Managers

#### *Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

## GRADUATE COURSE CATALOG

Micro- and macroeconomic theory for managerial decision making. Forecasting. Not open to students seeking advanced degrees in economics.

### **ECN 605 - Mathematics for Economists**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Only during the summer  
A review of mathematical techniques required in economics. Calculus, matrix, algebra, difference and differential equations, and set theory. Open to economics Ph.D. and Applied Statistics masters students only. Two semesters of calculus required.

### **ECN 610 - Special Topics in Economics**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Various special topics of economics issues offered as available.  
PREREQ: ECN 601  
Repeatable 5 time(s), 18 credits maximum

### **ECN 611 - Microeconomics I**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Consumer and firm theory. Emphasis on the development of analytic techniques and the ability to apply them to economic models.  
PREREQ: ECN 301, ECN 302, ECN 602

### **ECN 612 - Microeconomics II**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
General equilibrium theory and advanced topics in economic theory.  
PREREQ: ECN 611

### **ECN 613 - Macroeconomics I**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Aggregate economic analysis. Emphasizes macroeconomic models and main currents in contemporary macroeconomic thought.

### **ECN 614 - Macroeconomics II**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Advanced topics and recent developments in macroeconomics. Inflation theory, monetary theory, open economies, rational expectations, and current controversies.  
PREREQ: ECN 613

### **ECN 615 - History of Economic Thought**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Economic theories from antiquity to the 20th century.

### **ECN 620 - Foundations of Econometrics**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Only during the summer  
Probability and statistics. Random variables, joint probability distributions, point estimation, and hypothesis testing procedures. May not be repeated for credit. Open to economics Ph.D. and Applied Statistics masters students only. Two semesters of calculus required.

### **ECN 621 - Econometrics I**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Mathematical formulation of economic models. Statistical problems of estimating parameters in regression analysis.  
PREREQ: ECN 605 AND ECN 620

### **ECN 622 - Econometrics II**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Estimation problems and techniques in more complex economic models.  
PREREQ: ECN 621

### **ECN 631 - Public Finance**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Economics of expenditure and taxation decisions of U.S. federal government. Public choice, economics of transfer payments to individuals, personal and corporate income taxation, and economics of social security program. For Master's candidates.

### **ECN 635 - State and Local Government Finance**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Crosslisted with: PAI 735  
Expenditures and revenues of state and local governments. Fiscal aspects of intergovernmental relations.  
PREREQ: ECN 601

### **ECN 655 - Economics of Health and Medical Care**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Crosslisted with: PAI 736  
Economic theory, empirics and public policy concerning health and medical care in the U.S. Primary objective to analyze health care problems from an economic perspective. Prereq (for ECN 655): ECN 601 or equivalent; (for PAI 736): PAI 723.  
PREREQ: ECN 601

### **ECN 661 - Economics of Development**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Crosslisted with: PAI 757  
Economic development in international settings. Labor and employment, population, education, health and nutrition. Why some countries have rapid economic development, and others low growth and pervasive poverty.  
PREREQ: PAI 723

### **ECN 662 - Public Finance in Developing Areas**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Crosslisted with: PAI 758  
Public finance in less-developed countries. Urban taxation and provision of public services. Considering efficiency and equity issues.  
PREREQ: PAI 723

### **ECN 665 - International Economics**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Balance of payments, foreign exchange markets, international trade theory, tariffs, quotas adjustment mechanisms, and exchange controls.

### **ECN 681 - Money, Banking & Monetary Policy**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Only during the summer  
Financial instruments and structure, banking organization and regulation. Money supply determination control and policy. The Federal Reserve: structure and policy instruments. Master's or doctoral candidates only.  
PREREQ: ECN 602

### **ECN 720 - Topics in Econometrics**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) Irregularly  
Selected topics in applied and advanced econometrics.  
PREREQ: ECN 622  
Repeatable 3 time(s), 12 credits maximum

### **ECN 731 - Public Expenditures**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Theory of public goods; incidence of expenditures; intergovernmental relations; expenditure determinants, benefit-cost analysis.

### **ECN 732 - Taxation**

**Maxwell School of Citizenship and Public Affairs**  
3 credit(s) At least 1x fall or spring  
Tax structures at federal, state, and local levels. Incidence and effects of property, income, and

## GRADUATE COURSE CATALOG

commodity taxation. Analysis of tax equity.

### **ECN 741 - Urban Economics**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Urban land-use patterns, transportation, and housing. Theoretical and quantitative framework.

### **ECN 745 - Regional Economics**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Even Academic Yr e.g. 2004-5

Theory and analysis of regional economics; interregional income theory and factor movements, regional growth, accounts, and policy.

### **ECN 751 - Labor Economics I**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Theory and evidence. Static and dynamic models of labor supply and demand, human capital, wage determination, and effects of family background on labor market outcomes.

### **ECN 752 - Labor Economics II**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Income distribution, effects of health on work and wages, discrimination, retirement decisions, and impacts of government programs and policies. PREREQ: ECN 751

### **ECN 765 - Advanced International Trade**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Trade theory, derivation of models, theory of protection. Impact of technology, market structure, and taxation on pattern of trade.

### **ECN 776 - Economics of Science and Technology**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Crosslisted with: PAI 776

Interaction of technological change and policy. Introduction to the economic analysis of knowledge as a public good. Diffusion of knowledge and the role knowledge transfer plays in the industrialized world and in the economic growth of developing nations.

PREREQ: PAI 723 OR ECN 601

### **ECN 777 - Economics of Environmental Policy**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Crosslisted with: PAI 777

How economic incentives may lead to environmental problems and how government

policy can maintain or improve environmental quality. Methods for valuing the benefits of environmental amenities and the effects of environmental policy on economic growth.

PREREQ: PAI 723 OR ECN 601

### **ECN 820 - Dissertation Workshop I**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

For dissertators at all stages, providing critical feedback for those who are advanced and guidance for those who are beginning. Coverage includes: establishing a topic (originality, importance, search); trade off and balance between theory and empirical research; oral and written presentation, packaging, persuasion. Repeatable

### **ECN 821 - Dissertation Workshop II**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

This course is intended to give experience in writing and presenting papers as well as evaluation of classmates' papers. Third- and fourth-year graduate economics students. Repeatable

### **ECN 865 - Topics International Economics**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Understanding of the intuition, theory, and methods underlying current research on trade and trade policy. Overall picture of research on international trade policy.

PREREQ: ECN 765 OR ECN 665

### **ECN 997 - Masters Thesis**

**Maxwell School of Citizenship and Public Affairs**

1-6 credit(s) Every semester

Repeatable

### **ECN 999 - Dissertation**

**Maxwell School of Citizenship and Public Affairs**

1-15 credit(s) Every semester

Repeatable

## **Geography**

### **GEO 600 - Selected Topics**

**Maxwell School of Citizenship and Public Affairs**

1-6 credit(s) At least 1x fall or spring

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **GEO 602 - Research Design in Geography**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Approaches to research, alternative philosophies, and research designs. Research procedures, information gathering. Collection of original data. Formulation of individual research topics.

### **GEO 603 - Development of Geographic Thought**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Historical survey of development of Geography. Emphasis on 20th century: regionalism, positivism, humanism, Marxism, feminism, post-structuralism/post-colonialism

### **GEO 606 - Development and Sustainability**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Critical analysis of international development and sustainability. Focuses on the complex political, economic, cultural, and ecological processes involved in development discourse and practice. Readings and case studies drawn from Latin America, Africa, and Asia.

### **GEO 609 - Readings and Special Work in Advanced Geography**

**Maxwell School of Citizenship and Public Affairs**

1-3 credit(s) Every semester

Topics to be selected in conference with advisor for individual program of study and research.

### **GEO 610 - Qualitative Methods in Geography**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Odd academic yr e.g. 2007-8

This course provides an overview of qualitative methods in human geography. It examines the relationship between methodology, epistemology, and politics, compares different qualitative methods, and gives students hands-on experience with a range of methodological tools.

### **GEO 655 - Biogeography**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Even Academic Yr e.g. 2004-5

Double Numbered with: GEO 455

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.

## GRADUATE COURSE CATALOG

### **GEO 670 - Experience Credit**

#### ***Maxwell School of Citizenship and Public Affairs***

1-6 credit(s) Every semester  
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.  
Repeatable

### **GEO 672 - Geopolitics and the State**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Survey of political geographic research on states, nations, territories, and their connection with geopolitical theories and the practice of foreign policy; focus on critical approach to applied geopolitical thinking.

### **GEO 681 - Map Design**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Principles of cartographic design. Expository cartography for geographic research. Projections, symbolization, generalization, and use of electronic publishing technology.

### **GEO 682 - Remote Sensing for Environmental Applications and Research**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Principles and environmental applications of remote sensing, emphasizing research. Uses and limitations of remotely-sensed data; typical image processing operations and analyses; laboratory exercises and individualized advanced work and term project.

### **GEO 683 - Geographic Information Systems**

#### ***Maxwell School of Citizenship and Public Affairs***

3-4 credit(s) Every semester  
Double Numbered with: GEO 383  
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 684 - GIS for Urban Environments**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Odd academic yr e.g. 2007-8  
Double Numbered with: GEO 484  
Advanced GIS methods for the study of urban environments and systems. Emphasis on practical and applied uses of GIS, project management and spatial analysis. Laboratory exercises, case studies, and course projects use real world data.

Additional work required of graduate students.  
PREREQ: GEO 683

### **GEO 685 - Community Geography**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: GEO 485  
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 686 - Quantitative Geographic Analysis**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: GEO 386  
Descriptive and inferential statistics for use georeferenced data, spatial autocorrelation, and geostatistics. Geographic examples. Weekly labs. Individualized advanced work and term project.

### **GEO 687 - Environmental Geostatistics**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: CIE 687  
Statistical analysis of spatial patterns in environmental data. Exploratory data analysis; estimation, modeling, and interpretation of variograms; prediction using driging. Applications in engineering, geography, earth science and ecology. Use of geostatistical software.

### **GEO 688 - Geographic Information and Society**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Double Numbered with: GEO 388  
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 689 - Practicum in Community Geography**

#### ***Maxwell School of Citizenship and Public Affairs***

1-3 credit(s) Every semester  
Double Numbered with: GEO 489  
Supervised 135 hour internship in community-based participatory action research. Students work across disciplines and collaborate with community-based organizations to conduct geographic research on contemporary community issues. Additional work required of graduate

students. Permission to enroll required.  
Repeatable 3 time(s), 12 credits maximum

### **GEO 705 - Theories of Development**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: SOS 705  
Review of theories of development, economic growth, and social change. Comparison of explanatory power and limits of each theory. Review of prospects for synthesis and implications for empirical research in geography and other social sciences.

### **GEO 720 - Seminar: Latin America**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Research seminar on contemporary problems in human and regional geography, emphasizing development and socio-economic issues.  
Repeatable

### **GEO 730 - Political Economy of Nature**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Odd academic yr e.g. 2007-8  
Explores the complex relationships between capitalism and the natural environment. It covers both classical and contemporary debates within political economy and geography.

### **GEO 750 - Seminar: Physical Geography**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Advanced work in climatology, land forms, and other aspects of physical geography.  
Repeatable

### **GEO 754 - Seminar in Environmental History**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s)  
Origins of field, key debates, research methods relating to the historical geography of humans and the environment.

### **GEO 755 - Seminar in Political Ecology**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Conceptual origins, theoretical influences, and current debates in political-economic and cultural aspects of nature-society relations. Topics include environmental social movements, theories of nature, environmental justice, environmental conflicts, gender and environment.

## GRADUATE COURSE CATALOG

### **GEO 757 - Environmental Sediment Mechanics**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s)

Physical processes of sediment transport in the environment including fluid behavior, sediment properties, roughness of bed forms, resistance to flow, initiation of particle motion, bed-load transport, and relevant practical issues.

### **GEO 758 - GIS-based Geostatistical Methods and Applications**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest

Using GIS tools to calculate spatial statistics, identify spatial patterns (local and global), and perform spatial modeling (GWR)

PREREQ: GEO 683 AND 686

### **GEO 764 - Gender and Globalization**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s)

Crosslisted with: ANT 764, WGS 764

The impact of the increasing hypermobility of capital and culture flows across borders on gender relations.

### **GEO 772 - Seminar: Cultural Geography**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Odd academic yr e.g. 2007-8

Examination of major currents in western cultural theory from the industrial revolution to the present, their development and transformation in light of advances in spatial theory.

Repeatable

### **GEO 773 - Seminar in Economic Geography**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s)

Examination of contemporary debates in economic geography including the impact of the cultural and institutional turn. Also examines economic geography perspectives on globalization, labor, innovation, and restructuring. Permission of instructor.

### **GEO 774 - Seminar: Historical Geography**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Research seminar on current historiographic issues and archival methodologies in historical geography.

Repeatable

### **GEO 781 - Seminar: Cartography**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Research seminar devoted to topics of current interest in geospatial technology, cartographic communication, and the history of cartography in the twentieth-century.

### **GEO 815 - Seminar in Urban Geography**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Research seminar on theoretical and empirical issues in urban geography.

### **GEO 870 - Seminar on Population Geography**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest

Specialized research topics dealing with the application of demographic measurements to geographic problems.

Repeatable

### **GEO 876 - Feminist Geography**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: WGS 876

The relationships between gender, space, and place. Topics include the gendered spaces of everyday life, identity and spatial metaphor, geographies of the body and the border, human migration, gender and the city.

### **GEO 970 - Experience Credit**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Every semester

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. Permission, in advance, of assigned instructor, department chair, or dean.

Repeatable

### **GEO 997 - Master's Thesis**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Every semester

Repeatable

### **GEO 999 - Doctoral Dissertation**

*Maxwell School of Citizenship and Public Affairs*

1-15 credit(s) Every semester

Repeatable

## History

### **HST 600 - Selected Topics**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **HST 615 - Graduate Preparation**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester

Sections offered corresponding to the major areas of history so graduate students may prepare for more advanced graduate study.

Repeatable

### **HST 622 - Empire**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest

Seminar on classic texts about empire from Thucydides to The Federalist. Studied from 432 B.C. to the present.

### **HST 625 - The European Union**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: SOS 625

Interdisciplinary introduction to history, politics, and economics of the European community.

### **HST 626 - African American Urban History**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester

Crosslisted with: AAS 626

Double Numbered with: HST 426

This seminar will examine the complex and varied Black urban experiences in the 20th and 21st centuries from the 1890s to the present.

### **HST 634 - Underground Railroad**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest

Crosslisted with: AAS 634, ANT 694

Double Numbered with: HST 434

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 635 - European Perspectives on Contemporary War and Conflict**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest

Crosslisted with: PAI 635



## GRADUATE COURSE CATALOG

Seminars conducted at the Syracuse University campus with a week in London to examine the evolution of armed interventions. Meetings with scholars and practitioners in London will bring European perspectives to contemporary conflicts.

### **HST 644 - Israel and Palestine: Historical Approaches**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
Crosslisted with: MES 644

A thorough historical grounding for understanding contemporary Israel and Palestine in terms of changing social, economic, cultural and political contexts.

### **HST 645 - History of International Relations**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
Crosslisted with: PAI 645

Provide professional masters-level students with a solid grounding in the history of international relations around a common theme of states and empires throughout various important time periods.

### **HST 682 - Foundations of American Political Thought**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring  
Crosslisted with: PSC 716, SOS 716

American political thought to about 1820. Puritans, American Revolution, establishment of the Constitution, and thought of Hamilton and Jefferson.

### **HST 689 - Race and Law**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
Race and law in American history, 1600-1960, the historical experience of African-Americans, the indigenous peoples, and Asian-Americans.

### **HST 690 - Independent Study**

**Maxwell School of Citizenship and Public Affairs**

1-6 credit(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. Repeatable

### **HST 693 - Oral History Workshop**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
Crosslisted with: DFH 693

Examines the practice of oral history from methodological and theoretical levels, the differences between individual and collective

memories, and its application to analysis of events, ethical dimensions, and technological tools.

### **HST 695 - Historical Narratives and Interpretation**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring  
Crosslisted with: DFH 695  
Comparison and exploration of the documentary and the written word as alternative formats for presenting history. Documentaries and historical writings are examined and discussed using case studies.

### **HST 700 - Selected Topics**

**Maxwell School of Citizenship and Public Affairs**

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **HST 715 - Readings and Research in American History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Every semester  
Readings and research on a topic or theme in American History of the instructor's choosing. Repeatable

### **HST 725 - Readings and Research in Latin American History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Upon sufficient interest  
Secondary readings in Latin American history. Repeatable

### **HST 735 - Readings and Research in European History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Every semester  
Readings and research on a topic or theme in European History of the instructor's choosing. Repeatable

### **HST 738 - American Legal History: Modern Public Law**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
A history of American constitutional law from reconstruction to c. 1960.

### **HST 755 - Readings and Research in Eastern European History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Upon sufficient interest  
Secondary literature in Eastern European history.

### **HST 765 - Readings and Research in African History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Upon sufficient interest  
Crosslisted with: AAS 765  
Readings and research on a topic or theme in African History of the instructor's choosing.

### **HST 775 - Readings and Research in South Asian History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Every semester  
Crosslisted with: SAS 775  
Graduate seminar introducing main debates in the historiography of late medieval and modern South Asia.

### **HST 800 - Selected Topics**

**Maxwell School of Citizenship and Public Affairs**

1-6 credit(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. Repeatable

### **HST 801 - Historiography**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

### **HST 802 - Modes of Analysis in History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
The colloquium will discuss a large variety of articles and monographs in European and American history.

### **HST 803 - Theories and Philosophies of History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly  
History of historical thought and practice in the development of modern historical method.

### **HST 804 - First-Year Graduate Research Seminar**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring  
Seminar geared to particular research interests of first-year students.

### **HST 805 - Seminar in American History**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Every semester  
Readings and research on a topic or theme in American History of the instructor's choosing.

## GRADUATE COURSE CATALOG

### **HST 806 - Seminar in European History**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Readings and research on a topic or theme in European History of the instructor's choosing.

### **HST 950 - Documentary Film and History Program Paper**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s)  
Alternative to TRF 650 for Documentary Film and History students. Substantial research paper with accompanying documentary treatment.

### **HST 990 - Independent Study**

#### ***Maxwell School of Citizenship and Public Affairs***

1-6 credit(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. Repeatable

### **HST 996 - Graduate Readings**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Every semester  
To be used for field exam study. One year of coursework in the Ph.D. program is required. Repeatable 1 time(s), 6 credits maximum

### **HST 997 - Masters Thesis**

#### ***Maxwell School of Citizenship and Public Affairs***

1-6 credit(s) Every semester  
Repeatable

### **HST 999 - Doctoral Dissertation**

#### ***Maxwell School of Citizenship and Public Affairs***

1-15 credit(s) Every semester  
Repeatable

## **Middle Eastern Studies**

### **MES 626 - Beyond the Veil: Gender Politics in Islam**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Crosslisted with: REL 626  
Double Numbered with: MES 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.

### **MES 644 - Israel and Palestine: Historical Approaches**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s)  
Crosslisted with: HST 644  
A thorough historical grounding for understanding contemporary Israel and Palestine in terms of changing social, economic, cultural and political contexts.

### **MES 668 - Middle East in Anthropological Perspective**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Crosslisted with: ANT 668, PAI 668  
Double Numbered with: MES 468  
Anthropology of the social, cultural, geographical, and political realities of the Middle East. Additional work required of graduate students.

### **MES 682 - Social Theory and Middle East Politics**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Crosslisted with: PSC 682  
Orientalist, Marxian, Weberian, and postmodern viewpoints about such issues as colonialism, Islamism, nationalism, secularism, authoritarianism, modernity, and patriarchy in the Middle East.

### **MES 684 - International Relations of the Middle East**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Crosslisted with: PAI 684, PSC 684  
Analysis of some of the central issues of contemporary regional and international politics of the Middle East.

### **MES 690 - Independent Study**

#### ***Maxwell School of Citizenship and Public Affairs***

1-6 credit(s)  
Repeatable

### **MES 707 - Culture in World Affairs**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s)  
Crosslisted with: ANT 707, PAI 707  
A systematic survey of the ways in which local, organizational, and transnational issues in world affairs are affected by culture.

## **Master of Public Health**

### **MPH 601 - Principles of Epidemiology**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
A focus on epidemiologic concepts and

methods including design and analytic studies, such as aggregate, case series, cross-sectional; case-control, and cohort studies; application of epidemiology to public health practice; communication; and dissemination of epidemiologic findings.

### **MPH 602 - Principles of Biostatistics**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Presents fundamental concepts in applied probability, exploratory data analysis, and statistical inference. Topics include discrete and continuous probability models; expectation and variance; inference; graphical displays; and data transformations.

### **MPH 603 - Principles of Environmental Health**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
An introduction to the principles, methods, and issues related to environmental health sciences.

### **MPH 604 - Social and Behavioral Dimensions of Public Health**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Covers areas of public health research, theory, and practice; social determinants of population health, health promotion and behavior change, and health inequalities. Also focuses on individual-level health risks and macro-level policies and systems in which health inequalities occur.

### **MPH 605 - Public Health Practice**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
The first of two 3-credit courses intended to provide an introduction to a series of contemporary issues in public health practice.

### **MPH 606 - Public Health Practice**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
The second of two 3-credit courses intended to provide an introduction to a series of contemporary issues in public health practice.

### **MPH 607 - Public Health Administration**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
An introduction to major health policy and management competencies. Issues related to planning, organization, administration, management, evaluation and policy analysis of public health programs will be explored.

## GRADUATE COURSE CATALOG

### **MPH 642 - Mixed Research Methods in Public Health**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

The use of a range of research methods focused on public health. Includes instruction in research design, quantitative analysis of data, qualitative data collection methods and analysis, and presentation of results to diverse audiences  
PREREQ: MPH 601 OR MPH 602

### **MPH 652 - Infectious Disease Epidemiology**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Explores and covers the epidemiology of infectious diseases and covers basic epidemiologic methods, pathogenesis of selected infectious diseases, case-studies on performing outbreak investigations and developing population studies to understand spread, transmission and prevention strategies. Enrollment in Master of Public Health Degree program is required.

### **MPH 653 - Chronic Disease Epidemiology**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Current information on chronic disease epidemiology, survey and biological methods for exposure measurement in epidemiologic studies; leading chronic diseases, measurement of disease, lifestyle, nutrition, occupation, and family history. Enrollment in Master of Public Health Degree program is required.

### **MPH 654 - Grant Writing in Public Health**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Overview of planning, writing, and managing requests for funding in a public health context, including the drafting of a grant proposal for an agency of the student's choice. Enrollment in Master of Public Health Degree program is required.

### **MPH 655 - Advanced Epidemiology**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Builds on principles and methods in design and conduct of epidemiologic studies. Topics include epidemiologic study designs; secondary data and evaluation of measurement and information bias; confounding and effect modification; validity and precision in research  
PREREQ: MPH 601, MPH 602

### **MPH 656 - Health Services/Outcomes Research**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Focuses on monitoring of health status, quality of life in populations and clinical settings, as well as survey and secondary data base methodologies  
PREREQ: MPH 602

### **MPH 657 - Advanced Research Methods in Public Health**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Applies knowledge of public health to planning, execution, and reporting of research. Topics include: writing, research and design methods; construction of measuring instruments, experimental procedures, and laboratory setups; analysis and interpretation of data.

### **MPH 658 - Economics for Public Health Practitioners**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Introductory health economics course aimed at public health practitioners. Broad foundation in the demand and supply of health care and financing of personal and public health services. Economic concepts will be examined through public health examples.

### **MPH 661 - Advanced Biostatistics**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Problem-oriented probability distributions, moments estimation, parametric and nonparametric inference for one-sample and two-sample problems, analysis of frequency data, linear regression, and correlation analysis, with emphasis on use of computers.  
PREREQ: MPH 602

### **MPH 687 - Statistical Methods for Categorical Data**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Covers statistical methods for analyzing categorical (nominal and ordinal) data which are frequently encountered in public health and biomedical research  
PREREQ: MPH 602, MPH 661

### **MPH 688 - Principles of GIS for Public Health Research and Practice**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Introduce the basic principles and methods of Geographic Information Systems and enable the student to apply these skills and knowledge to

investigate public health problems.

PREREQ: MPH 601, MPH 603

### **MPH 700 - Selected Topics**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) At least 1x fall or spring

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester  
Repeatable

## **Native American Studies**

### **NAT 600 - Selected Topics**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Every semester

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **NAT 638 - Native American Health Promotion**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: HTW 638

Double Numbered with: NAT 438

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 645 - Public Policy and Archaeology**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: ANT 645

Double Numbered with: NAT 445

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 647 - Archaeology of North America**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: ANT 647

Double Numbered with: NAT 447

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, 145

## GRADUATE COURSE CATALOG

### **NAT 656 - Representations of Indigenous Peoples in Popular Culture**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: ANT 656

Double Numbered with: NAT 456

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 659 - Contemporary Native North American Issues**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: ANT 659

Double Numbered with: NAT 459

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 661 - Museums and Native Americans**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: ANT 661

Double Numbered with: NAT 461

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.

## **Public Administration & International Affairs**

### **PAI 515 - China in Transition**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester

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**

*Maxwell School of Citizenship and Public Affairs*

1-12 credit(s) Upon sufficient interest

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.

Repeatable

### **PAI 601 - Fundamentals of Conflict Studies**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s)

Crosslisted with: SOS 601

Introduction to a broad range of areas related to the analysis and resolution of conflict, focusing on the interdisciplinary study of defining, understanding, and addressing conflict.

### **PAI 624 - Dictatorships, Human Rights, and Historical Memory in the Southern Cone**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester

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.

### **PAI 626 - Cultures and Politics of Afghanistan and Pakistan**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: ANT 626, 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.

### **PAI 632 - International Public and Non-Government Organization Management**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

How international and non-governmental organizations manage three key functions: regime creation, information mobilization, and norm enforcement. Organizations examined from management perspective in terms of functions, through specific case studies. Offered as a distance education course.

### **PAI 633 - Evaluation of International Programs and Projects**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Concepts and methods of program and project evaluation as practiced in international public and non-governmental organizations.

### **PAI 635 - European Perspectives on Contemporary War and Conflict**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest

Crosslisted with: HST 635

Seminars conducted at the Syracuse University campus with a week in London to examine the evolution of armed interventions. Meetings with scholars and practitioners in London will bring European perspectives to contemporary conflicts.

### **PAI 641 - Negotiating Resolution of International Conflict**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

International and community conflict, characteristics, negotiation, collaborative problem solving, process advice. International conflict escalation, stalemate, de-escalation, settlement, resolution, or management.

### **PAI 645 - History of International Relations**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s)

Crosslisted with: HST 645

Provide professional masters-level students with a solid grounding in the history of international relations around a common theme of states and empires throughout various important time periods.

### **PAI 655 - Global Information Technology Policy**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: PSC 655

Policy implications of the increasingly important interaction between information technology development and the governance process.

### **PAI 658 - Contemporary Issues in Turkey**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester

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.

### **PAI 665 - Applied Global Health Practice and Policy**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: HTW 665

Applied practice of global health, focused in

## GRADUATE COURSE CATALOG

developing countries, through grounding in current global health practice and policy review and multidisciplinary global health classroom projects.

### **PAI 668 - Middle East in Anthropological Perspective**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly

Crosslisted with: ANT 668, MES 668

Anthropology of the social, cultural, geographical, and political realities of the Middle East.

Additional work required of graduate students.

### **PAI 670 - Experience Credit**

**Maxwell School of Citizenship and Public Affairs**

1-6 credit(s) Every semester

Crosslisted with: PSC 670

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.

Repeatable

### **PAI 684 - International Relations of the Middle East**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Crosslisted with: MES 684, PSC 684

Analysis of some of the central issues of contemporary regional and international politics of the Middle East.

### **PAI 700 - Selected Topics**

**Maxwell School of Citizenship and Public Affairs**

1-6 credit(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.

Repeatable

### **PAI 701 - Seminar on Multilateral Peacekeeping**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s)

Crosslisted with: ANT 701

One-week intensive course in New York City between fall and spring semesters with follow-up sessions in Syracuse. Combination of peacekeeping theory, analysis, and practice of operations. Speakers from United Nations, nongovernmental organizations, and U.S. government.

### **PAI 702 - Development in Africa: Challenges, Constraints, and Strategies**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Only during the summer

Current development issues, constraints on development, and strategies aimed at achieving development in Africa. Offered in Washington, D.C.

### **PAI 703 - Current Issues in US-Latin American Relations**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Only during the summer

Real world policy issues currently affecting Latin America and the US. The one-week seminar in Washington, DC will include presentations and panel discussions by practitioners in the field.

### **PAI 704 - Quantitative Skills in International Relations**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Every semester

The diverse sources and methods used to collect data upon which decisions are made. Course aimed to help train IR professionals in tools needed to better develop and implement programs and policies.

### **PAI 705 - Research Design for IR Practitioners**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Every semester

An overview of how social science research is conducted and how it can be used in policy-making in international affairs.

### **PAI 706 - International Relations Capstone Seminar**

**Maxwell School of Citizenship and Public Affairs**

1 credit(s) At least 1x fall or spring

Develop students to be effective players in the global workplace. Course ties the IR program together, marrying the academic components of student learning to the practical aspects of working in an international career.

### **PAI 707 - Culture in World Affairs**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Crosslisted with: ANT 707, MES 707

A systematic survey of the ways in which local, organizational, and transnational issues in world affairs are affected by culture.

### **PAI 708 - Issues for 21st Century Public Diplomacy**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Exploration of the state of public diplomacy: its place in U.S. statecraft, the evolving roles and relations of U.S. Government departments and agencies with regard to publics here and abroad.

### **PAI 709 - Research Consultancy in Public Diplomacy**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Structured, supervised research projects by

student teams that involve extensive interviews, data analysis, findings and recommendations to help sponsoring organizations deal with communication problem or opportunity.

### **PAI 710 - International Actors and Issues**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Introduction to critical actors and issues in the international arena, including how social science theories help explain developments and inform policy choices.

### **PAI 711 - Practicum in International Organizations**

**Maxwell School of Citizenship and Public Affairs**

6 credit(s) Only during the summer

Provides a practical and theoretical overview of international organizations and their role in international affairs. Seminar participants combine working in a Geneva-based international organization with a series of lectures, readings, and writing assignments. Offered in Geneva only.

### **PAI 712 - Public Organizations and Management**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Behavioral systems and management theories and practices in the modern organization. Practical exploration of functions and dysfunctions of various public organizations (governmental and nonprofit) in relation to personal, social, and cultural values.

### **PAI 713 - Governance and Global Civil Society**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Crosslisted with: PSC 703

Survey of perspectives and literatures on global civil society organizations and transnational NGOs. Begins the process of integrating these literatures through critical analysis.

### **PAI 715 - Topics in Global Development**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Seminars by leading practitioners in the field at Syracuse University Greenberg House in Washington, D.C. The institutions and issues involved in the development process. Professional skills needed for career opportunities.

Repeatable

## GRADUATE COURSE CATALOG

### **PAI 716 - Economic Dimensions of Global Power**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Explores the ways in which growing economic interdependence shifts in the locus of global wealth; and ongoing technological change affect the ability of state and non-state actors to exert influence.

### **PAI 717 - International Security**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Theoretical approaches to study of international security; central issues shaping current debates. Investigates causes of war, strategies for avoiding conflict, impact of new technologies, actors, and ideas on calculations about the use of force.

### **PAI 718 - United States National Security: Defense and Foreign Policy**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly

Crosslisted with: PSC 706

Current problems in planning and administering national security policy in the United States.

### **PAI 719 - Fundamentals of Post-Conflict Reconstruction**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Crosslisted with: PSC 719

The goal of this class is to provide students with a broad overview of the field of post-conflict reconstruction (PCR) from both a theoretical and applied point of view. Over the course of the semester we will consider the various goals of PCR work, the range of actors that conduct it and the lessons learned from its application across various settings.

### **PAI 720 - Principles of Economics**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Broad-based background in both micro- and macro-economics for MAIR students whose career aspirations do not require substantial training in these economics specialties.

### **PAI 721 - Introduction to Statistics**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Basic inferential statistics (point and interval estimation, hypothesis testing). Descriptive statistics (measure of central tendency, variation, bivariate and multivariate association).

### **PAI 722 - Quantitative Analysis**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Quantitatively oriented models used in policy analysis, program evaluation, and forecasting. Linear, mathematical, probabilistic, and cost-benefit models.

PREREQ: PAI 721

### **PAI 723 - Economics for Public Decisions**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Every semester

Application of micro-economic analysis to public policy problems. Designed for those with limited background in economics. Use of basic economic reasoning to help untangle complex policy problems.

### **PAI 724 - Computer Applications for Public Managers**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Introduction to effective use of the computer to manage complex and voluminous data found in public sector organizations. Focus on information management issues and productivity enhancement.

### **PAI 725 - Global Europe Seminar**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly

Economic, social, and political issues on an integrated Europe. Guest speakers from local research institutes, student presentations, and discussions with scholars and practitioners on the challenges of European integration. Offered in Europe, exact location varies.

### **PAI 726 - Global Energy, Economics and Geopolitics**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Only during the summer

International energy issues and their interactions with development concerns, human rights, environment, geopolitics, and regional rivalries, among other topics. Held in DC with site visits and guest speakers.

### **PAI 727 - Responding to Proliferation of Weapons of Mass Destruction**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s)

Dangers caused by the proliferation of weapons of mass destruction and strategies to address this threat. National and international efforts ranging from diplomacy to arms control to counter-proliferation strategies.

### **PAI 728 - National Planning and Capacity to Govern**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly

Crosslisted with: PSC 707

Current problems of long-run policy making and execution. Social and political preconditions and consequences of economic, defense, development, or social planning. Problems of intergenerational fairness, forecasting, freedom, administration, and public private sector relationships.

### **PAI 730 - Problems in Public Administration**

**Maxwell School of Citizenship and Public Affairs**

1-3 credit(s) Every semester

May include specific courses focusing on international economic development; nonprofit and international non-governmental organization management; federal policy formulation; technology and governance issues; e-government; GIS mapping, and dispute resolution management. Repeatable

### **PAI 731 - Financial Management in State and Local Governments**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) At least 1x fall or spring

Financial problems confronting state and local governments. Governmental accounting and auditing, municipal borrowing; bond rating; cash management; effects of changing economic base on revenues and expenditures; actuarial funding of employee retirement systems. PREREQ: PAI 734 OR ECN 635

### **PAI 733 - Public Personnel and Collective Bargaining**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Irregularly

Survey of public personnel administration. Current practice, issues and problems in personnel management. Policies and programs affecting the sociopolitical and human resources dimensions of public organizations.

### **PAI 734 - Public Budgeting**

**Maxwell School of Citizenship and Public Affairs**

3 credit(s) Only during the summer

Role of the modern budget in determination of policy, administrative integration, control of government operations and intergovernmental relations, and in relation to private economy. Unit costs, work programs, budgetary analysis.

## GRADUATE COURSE CATALOG

### **PAI 735 - State and Local Government Finance**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECN 635

Expenditures and revenues of state and local governments. Fiscal aspects of intergovernmental relations.

PREREQ: PAI 723

### **PAI 736 - Economics of Health and Medical Care**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECN 655

Economic theory, empirics and public policy concerning health and medical care in the U.S. Primary objective to analyze health care problems from an economic perspective. Prereq (for ECN 655): ECN 601 or equivalent; (for PAI 736): PAI 723.

PREREQ: PAI 723

### **PAI 738 - US Intelligence Community: Governance & Practice**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Key phases and specific events of the US Intelligence Community will be explored, along with governance and oversight. Students will study the functional elements of intelligence tradecraft and engagement with international counterparts.

### **PAI 739 - US Defense Strategy, Resources, & Military Operations**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Governance and execution of National strategy by the Department of Defense, the Joint Staff and Combatant Commanders; national command and control of military forces; case studies of joint and combined operations overseas.

### **PAI 741 - Social Media in the Public and Non-Profit Sector**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Overview of current practices for managing Information assets produced by government and its stakeholders using social media applications. Interactive information structure analyzed through management, technology and organizational components.

### **PAI 742 - Public Administration and Law**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Legal developments relevant to public

administration in United States. Legal and administrative theory. Specific cases. Role of courts in contemporary public administration.

### **PAI 743 - The Administrator in the Political Environment**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly

Interaction of public bureaucracies with political executives, legislatures, courts, interest groups, and the general public. Concepts of bureaucratic accountability and representation.

### **PAI 744 - Metropolitan Government and Politics**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Current problems of urban management: centralized versus decentralized metropolitan government; fiscal strain; delivery of municipal services; collective bargaining; governmental accountability.

### **PAI 745 - Intergovernmental Relations**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly

Forces, theories, and institutions that have shaped and are shaping the centralization and localization of foci of governmental power, especially the American system.

### **PAI 746 - Ethics and Morality in Public Affairs**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Helps the student understand the nature of his or her own ethical and moral commitments as they relate to public affairs. Selected literature in philosophy, sociology, political science, law, and public administration.

### **PAI 747 - Human Resources Management for the Public Sector**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Theory, research, and practices for effective human resources management in public and nonprofit agencies. Political and institutional context of public sector human resources management, evolution of U.S. civil service system, critical issues confronting public managers.

### **PAI 748 - Seminar on Nonprofit Management**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Attributes of the nonprofit sector as compared with government and business; public policy

relationships that intertwine these sectors, highlight distinctive skills and talents needed for effective leaders in the nonprofit sector.

### **PAI 749 - Financial Management in Nonprofit Organizations**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Fundamental concepts of accounting and financial management and issues relevant to charitable, tax-exempt nonprofit organizations; how financial information and analysis are used in management and policy-making in the public sector.

PREREQ: PAI 734

### **PAI 751 - JD/MPA Seminar**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Impact of courts on public management and public policy. Open to JD/MPA students only. Satisfies University's comprehensive requirement for master's program. Prereq: JD/MPA student status.

### **PAI 752 - MPA Workshop**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Only during the summer

Consulting assignment that addresses current topics in public management. Objective of team project is application of MPA subject matter and techniques. Prereq: Completion of majority of MPA coursework.

### **PAI 753 - Executive Leadership and Policy Politics**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Only during the summer

Simulation exercise involving current public policy issues. Focus on politics of formulating and setting policy. Satisfies the University's comprehensive requirement for a master's degree.

### **PAI 755 - Public Administration and Democracy**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Public policy and administration in the context of a constitutional democracy. Relationships between administrative and constitutional values.

### **PAI 756 - International Development Policy and Administration**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

The course provides an overview of the key concepts, actors and institutions, as well as policy context and goals in the field of international development cooperation/foreign aid.

## GRADUATE COURSE CATALOG

### **PAI 757 - Economics of Development**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECN 661

Economic development in international settings.

Labor and employment, population, education, health and nutrition. Why some countries have rapid economic development, and others low growth and pervasive poverty.

PREREQ: PAI 723 OR ECN 601

### **PAI 758 - Public Finance in Developing Areas**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECN 662

Public finance in less-developed countries.

Urban taxation and provision of public services.

Considering efficiency and equity issues.

PREREQ: PAI 723

### **PAI 759 - Girls' Education in the Developing World**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Explores the benefits of girls' education; obstacles to higher numbers of girls in school; current situation in various developing countries.

### **PAI 761 - Organization Development**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly

Organization development: its literature, practical applications, evaluation of its results.

### **PAI 762 - Challenges of International Management and Leadership**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Every semester

Preparation for careers leading and managing organizations in a global environment. Students will think strategically about organizations and gain skills and competencies that effective leaders of all types of organizations need.

### **PAI 763 - NGO Management in Developing and Transitioning Countries**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Examines concerns central to NGO management and the NGO community regarding accountability, effectiveness, professionalism, and understanding the context in which NGOs operate.

### **PAI 764 - UN Organizations: Managing for Change**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Processes for change in United Nations

organizations. Topics include governance, organizational reform and political reform.

### **PAI 765 - Humanitarian Action: Challenges, Responses, Results**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Major humanitarian challenges worldwide since 1992. Disasters caused by nature and man: conflicts and major economic stress. Challenges for women, children, refugees, displaced people. Involvement of government, UN agencies, NGOs's, militaries, donors, press, and others.

### **PAI 767 - Fund Development for Nonprofit Organizations**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Theory and practice of fund development for nonprofit organizations. Students develop portfolio of fund development for real nonprofit organization.

### **PAI 768 - Policy and Management in the Nonprofit Economy**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly

The nonprofit sector as part of the larger US economy. Structure of industry, the practical effects of nonprofit tax status, fundraising, volunteer and board management, and the sector's relationship to the government among others.

### **PAI 769 - Public Sector Reform**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly

Profound changes in structure of public sector which have occurred in many countries over the last two decades. How structure has changed, consider why changes took place, and make judgments about the desirability of these changes.

### **PAI 771 - Public Management of Technology**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly

Public management of technology from a variety of perspectives. Governmental roles as developer, promoter, regulator, and user of new technology. Support of scientific research and uses of technical information in decision making.

### **PAI 772 - Science, Technology, and Public Policy**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Variety of concepts concerned with the interaction of science and technology and government.

### **PAI 773 - Technology and Its Processes**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly

Descriptive survey of selected technologies and technological developments. Technical and scientific aspects rather than economic and political impact.

### **PAI 774 - Public Policy and Program Evaluation**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly

Various approaches to determining effectiveness of public programs and policies, emphasizing experimental and quasi-experimental designs for evaluation. Strategies, politics, and logistics of policy evaluation.

### **PAI 775 - Energy, Environment and Resources Policy**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Relation of government to policymaking in the domain of energy, environment, and resources; politics of administration at all levels of government; comparative international aspects of these environmental issues.

### **PAI 776 - Economics of Science and Technology**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECN 776

Interaction of technological change and policy. Introduction to the economic analysis of knowledge as a public good. Diffusion of knowledge and the role knowledge transfer plays in the industrialized world and in the economic growth of developing nations.

PREREQ: PAI 723 OR ECN 601

### **PAI 777 - Economics of Environmental Policy**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Crosslisted with: ECN 777

How economic incentives may lead to environmental problems and how government policy can maintain or improve environmental quality. Methods for valuing the benefits of environmental amenities and the effects of environmental policy on economic growth.

PREREQ: PAI 723 OR ECN 601

### **PAI 778 - Development Finance: Building Inclusive Financial Systems**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring

Focus on how to build the policy and institutional



## GRADUATE COURSE CATALOG

infrastructure for delivering financial services that serve the poor.

### **PAI 779 - Social Policy: Financing the Poor**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Examines the role of informal finance and the design of financial interventions in the population to increase social policy program impact.

### **PAI 781 - Social Welfare Policy**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

The American system of public policy toward social concerns; problem and needs analysis, program development and evaluation; implementation and management in health education, welfare reform, aging, etc.

### **PAI 782 - Health Services Management**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Roles and functions of managers in health services organization. Issues in accountability. Unique role involving work with various disciplines: medical, nursing, social work, insurance, finance, etc.  
PREREQ: PAI 783

### **PAI 783 - The Changing American Health Care System**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Components of U.S. health care system. Evolution of health care organizations, personnel and their relationships. Environment of integrated delivery systems, managed care, and finance systems for health care; public policy implications of these changes in the public health and social services systems.

### **PAI 784 - Education Policy**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Overview of education policies designed to reform American schools and school systems. Topics include market based reforms, enhanced accountability, teacher recruitment and compensations plans, and decentralization, among others.

### **PAI 785 - Policy Implementation**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Issues of implementation of domestic and international programs and policies; explores various roles that elected officials, public managers, NGOs, and contractors play in program implementation and how these actions affect the

larger policy-making process; develop skills to improve implementation efforts.

### **PAI 786 - Urban Policy**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Recent evidence of urban problems; housing markets, neighborhood change and housing policy; discrimination, segregation, and racial transition; urban poverty and welfare programs; urban employment and economic development programs; urban education.  
PREREQ: PAI 723 OR ECN 601

### **PAI 787 - Child and Family Policy**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Applying microeconomic theory to the study of family. Focuses on the theoretical models developed to inform our understanding of theory, including marriage and divorce; fertility; employment; and human capital.

### **PAI 788 - Global Issues: Drugs, Crime and Terrorism**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Transnational issues of drugs, crime, and terrorism; impacts of each on United States national interests and foreign policies of the United States and other countries and the national/international organizations and laws created to deal with these issues.

### **PAI 789 - Advanced Policy Analysis**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Key steps in policy analysis: (1) assessing alternative rationales for government policy; (2) developing policy alternatives; (3) analyzing alternatives through a variety of analytical techniques; (4) communicating results; and (5) adopting and implementing policy.  
PREREQ: PAI 721, PAI 723

### **PAI 791 - Education Financial Administration**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Overview of the major concepts and tools involved in the financial administration of a school district. Topics include evaluation of revenue sources, budgeting, financial management, and government accounting.  
PREREQ: PAI 734

### **PAI 792 - Managing School District Non-Instructional Functions**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Overview of concepts and tools used in the management of non-instructional functions of a school district. Topics include management of finances, payroll, facilities, procurement, risk, transportation, food service, and information technology.

### **PAI 801 - Intellectual History of Public Administration**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Analyze the historical, cultural and intellectual currents that undergird theories and concepts in public administration.

### **PAI 802 - Public Organization Theory and Research**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Seminar will address the central questions of: organizations as units of analysis; public and private organizations; structure; relationships; decision making and leadership; and motivations and incentives.

### **PAI 803 - Quantitative Methods I: Research Methods for Public Administration**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

The objective of this course is to introduce students to the logic, design, and conduct of applied social research for students interested in public management and policy.

### **PAI 804 - Quantitative Methods II: Research Methods for Public Administration**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

The second course in the methodology sequence for Public Administration Ph.D. students, course covers the use of regression analysis for social sequence research, including OLS regression, heteroskedasticity, autocorrelation, and instrumental variables techniques.  
PREREQ: PAI 803

### **PAI 810 - Advanced Seminar: Policy and Administration**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester

Special problems in the politics, substance, or methodology of policy making, or in the execution, administration, or evaluation of public policy. Repeatable

## GRADUATE COURSE CATALOG

### **PAI 811 - Quantitative Methods III: Advanced Quantitative Methods Seminar**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Develop a familiarity with advanced multivariate statistical techniques, recognize special analytic problems, and develop a capacity to present and interpret statistical results and their implications.  
PREREQ: PAI 803 AND PAI 804

### **PAI 812 - Public Finance**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Course covers selected topics in state and local public finance at the Ph.D. level. Specifically designed for Ph.D. students in the Public Administration Department.

### **PAI 890 - Independent Study**

*Maxwell School of Citizenship and Public Affairs*  
1-6 credit(s) Every semester

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.  
Repeatable

### **PAI 895 - Mid-career Training Group**

*Maxwell School of Citizenship and Public Affairs*  
1-3 credit(s) At least 1x fall or spring

Core seminars for mid-career administrators who have had some years of experience in government or public service institutions to prepare them for responsible management posts.  
Repeatable 1 time(s), 6 credits maximum

### **PAI 896 - Mid-career Training Group**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) At least 1x fall or spring

Core seminars for mid-career administrators who have had some years of experience in government or public service institutions to prepare them for responsible management posts.

### **PAI 897 - Fundamentals of Policy Analysis**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Every semester

Provides an understanding of some of the models and methods used in policy analysis for the public and nonprofit sector.

### **PAI 930 - Readings and Research on Public Administration and Policy**

*Maxwell School of Citizenship and Public Affairs*  
1-3 credit(s) Every semester

Crosslisted with: PSC 911  
Repeatable 2 time(s), 9 credits maximum

### **PAI 996 - Master's Project Paper**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester  
Preparation of final paper: case study, policy analysis, or management study. Design, description, analysis, and policy recommendations. Required for M.A. in public administration (mid-career students only).  
Repeatable

### **PAI 999 - Dissertation**

*Maxwell School of Citizenship and Public Affairs*  
1-15 credit(s) Every semester

Repeatable

## **Political Science**

### **PSC 600 - Selected Topics**

*Maxwell School of Citizenship and Public Affairs*  
1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **PSC 602 - Public Policy Analysis: Theory and Practice**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) At least 1x fall or spring

Crosslisted with: SOS 604  
Overview of policy literature, including political economy and practical politics. Formal analyses and case studies.

### **PSC 611 - American Parties and Elections**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Political parties, interest groups, and electoral behavior in American political context.

### **PSC 612 - Development of the American Administrative State**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Origins, development, and character of the American administrative state from 1877 to the present. Welfare state, regulatory state, and the civil state.

### **PSC 621 - Theories of American Politics**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Basic introduction to the ways in which political scientists have conceptualized and studied American politics, primarily through an examination of influential approaches and "classic" works.

### **PSC 651 - Theories of International Relations**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) At least 1x fall or spring

Contemporary theories of international relations. Approaches to understanding and explaining international behavior at single-nation, multiple-nation, and systematic levels.

### **PSC 655 - Global Information Technology Policy**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Crosslisted with: PAI 655  
Policy implications of the increasingly important interaction between information technology development and the governance process.

### **PSC 670 - Experience Credit**

*Maxwell School of Citizenship and Public Affairs*  
1-6 credit(s) Every semester

Crosslisted with: PAI 670  
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.  
Repeatable

### **PSC 671 - Comparative Political Analysis**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) At least 1x fall or spring

Major theoretical approaches in comparative analysis: structural functionalism, systems, Marxism, dependency theory. Comparative research techniques: use of elite studies, aggregate data, theory, cross-national surveys, political sociology, diachronic analysis, and causal modeling.

### **PSC 681 - Comparative State, Society Relations**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: AAS 681  
Conceptual, methodological, and theoretical tools in comparing state, society relations, and their political and socioeconomic outcomes in the Pan African world and the rest of the world.

### **PSC 682 - Social Theory and Middle East Politics**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Crosslisted with: MES 682  
Orientalist, Marxian, Weberian, and postmodern viewpoints about such issues as colonialism, Islamism, nationalism, secularism, authoritarianism, modernity, and patriarchy in the Middle East.

## GRADUATE COURSE CATALOG

### **PSC 684 - International Relations of the Middle East**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: MES 684, PAI 684

Analysis of some of the central issues of contemporary regional and international politics of the Middle East.

### **PSC 690 - Independent Study**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Every semester

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.

Repeatable

### **PSC 691 - Logic of Political Inquiry**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Major debates in logic of political inquiry. Includes

alternative approaches to explanation and theory,

nature of political knowledge, place of values in

political inquiry, and policy relevance of political

science.

### **PSC 693 - Introduction to Quantitative Political Analysis**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Basic statistics, including measures of central

tendency and dispersion, hypothesis testing,

indices of association, and bivariate analysis.

Application of statistics to political science data.

### **PSC 694 - Qualitative Political Analysis**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Survey of qualitative methods in political science

research. Topics include elite interviewing,

participant observation, content analysis, and

discourse analysis. Discussions center on

research practices and exemplary applications.

### **PSC 700 - Selected Topics**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not

covered by the standard curriculum but of interest

to faculty and students in a particular semester.

Repeatable

### **PSC 703 - Governance and Global Civil Society**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: PAI 713

Survey of perspectives and literatures on global civil society organizations and transnational NGOs. Begins the process of integrating these literatures through critical analysis.

### **PSC 704 - Comparative Political Economy**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Political economy of economic growth,

redistribution and inequality. Political institutions,

origins and evolution. Cross-national variations in

economic institutions.

### **PSC 706 - United States National Security: Defense and Foreign Policy**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: PAI 718

Current problems in planning and administering

national security policy in the United States.

### **PSC 707 - National Planning and Capacity to Govern**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: PAI 728

Current problems of long-run policy making and

execution. Social and political preconditions

and consequences of economic, defense,

development, or social planning. Problems of

intergenerational fairness, forecasting, freedom,

administration, and public private sector

relationships.

### **PSC 711 - American Constitutional Development**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Key moments, periods, and themes in American

constitutional development. The influence of

constitutional ideas and institutions on political

development and the influence of political ideas

and institutions on the Constitution.

### **PSC 712 - Public Opinion and Communication**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Comparative perspective, emphasizing

United States. Opinion formation, political

communication systems, impact of news media,

propaganda, and methods, including opinion

surveys and content analysis.

### **PSC 713 - Congress and the Presidency**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Separate and shared powers of Congress and the Presidency. Consequences for policy making.

### **PSC 714 - Federalism, State, and Local Politics**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Origins and significance of federalism for

American politics. Role of states and localities.

Sources of conflicts in state-local politics.

Nature of state-local political processes.

Intergovernmental relations.

### **PSC 715 - Judicial Politics**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Judicial structure and process, emphasizing U.S.

Supreme Court. Behavioral and institutional

perspectives on judicial attitudes and behavior.

### **PSC 716 - Foundations of American Political Thought**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: HST 682, SOS 716

American political thought to about 1820.

Puritans, American Revolution, establishment of

the Constitution, and thought of Hamilton and

Jefferson.

### **PSC 718 - Politics and the Environment**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest

Examines the opportunities and constraints for

addressing environmental problems through the

political process. Its aim is to understand how

problems, political actors, and institutions come

together to shape policymaking in this arena.

### **PSC 719 - Fundamentals of Post-Conflict Reconstruction**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: PAI 719

The goal of this class is to provide students with

a broad overview of the field of post-conflict

reconstruction (PCR) from both a theoretical

and applied point of view. Over the course of the

semester we will consider the various goals of

PCR work, the range of actors that conduct it and

the lessons learned from its application across

various settings.

### **PSC 749 - International Security Theory**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Explores key controversies and debates in

contemporary security studies.

## GRADUATE COURSE CATALOG

### **PSC 752 - International Law and Organizations**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Foundations and application of international law. Institutional and political capability of international organizations. Recent theoretical and methodological development.

### **PSC 753 - International Political Economy**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) At least 1x fall or spring  
Relation between international politics and economics. Neoclassical and leftist approaches to problems of expansion, North-North relations, North-South relations, and system transformation.

### **PSC 754 - International Conflict and Peace**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Forms of international conflict and explanations for occurrence and resolution.

### **PSC 755 - Politics and Governance in the Information Age**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
The impact of advanced computing and communications technologies on the structure, organization, and behaviors of contemporary systems of public governance.

### **PSC 756 - Politics of the European Union**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
History, institutions, policies, and political dynamics of the European Union and its relations with the rest of the world.

### **PSC 757 - Non-State Actors in World Affairs**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Analysis and assessment of the causes of transnational non-state activism, the means and goals chosen by activists, and the effects of non-state actors in international and domestic affairs.

### **PSC 758 - Global Migration**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Why do people move across international borders, and where do they go? How should local communities, national governments, and international institutions respond? What are the goals of these policies, and are they effective?

### **PSC 759 - Crisis Management**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Leadership, cooperation, and conflict in times of crisis. Key dynamics that influence the way decision makers perceive and respond to crisis and the processes that facilitate constructive crisis management.

### **PSC 760 - Foreign Policy Seminars**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Selected aspects of foreign policy, such as American foreign policy, Soviet foreign policy, and foreign policy analysis.  
Repeatable

### **PSC 769 - Comparative Parties and Politics**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Political parties, interest groups, the electorate, and legislative behavior in a comparative political context.

### **PSC 779 - Political and Social Change**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Effects of long-term changes in societies on political behavior and institutions. Modernization.

### **PSC 780 - Seminar on Political Systems**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Political systems and political system change in selected nations and regions. Seminars may focus on one nation/region or they may analyze a substantive topic comparatively.  
Repeatable

### **PSC 781 - Politics of the Developing World**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
The socio-economic, political, and cultural issues shaping people's lives in the more than 140 state-societies that constitute the "Third World."

### **PSC 782 - Politics of China**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Political development, political institutions, and political economy of China and Chinese foreign relations, emphasizing the reform era.

### **PSC 783 - Comparative Foreign Policy**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Every semester

Systematic development of theories of foreign policy not limited to a single nation, decision, situation, or time. Definitions of foreign policy and logic of comparative analysis; historical roots of study of foreign policy; theories of war proneness, change and cooperation; examination of how foreign policy is made.

### **PSC 784 - Comparative Social Movements**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Development of the national social movement in Europe, culture and movements, organizations, collective identity, religion, movements and state institutions, comparative political contexts for movements, and others, using cases from Europe, the United States, Asia, and elsewhere.

### **PSC 785 - Comparative Civil-Military Relations**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Theory and practice of civil-military relations. 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 786 - Russian and Post-Soviet Politics**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Political institutions and political development of Russia and other post-Soviet and post-communist states, particularly since 1991.

### **PSC 787 - Democracy and Democratization**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Nature of modern democracy, contemporary transitions to democracy in countries around the world, problems of democratic consolidation and democratic theory, and the effects of democracy on the economy and world politics.

### **PSC 788 - Political Leadership**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) At least 1x fall or spring  
The relationship between what political leaders are like, the behavior of the institutions or governments they lead, and the effects of leaders and leadership on politics.

### **PSC 792 - Research Design**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) At least 1x fall or spring  
Logic of designing research in political science. Conceptual, theoretical, and empirical analysis.

## GRADUATE COURSE CATALOG

Focus on developing dissertation proposals.

### **PSC 793 - Constructing the World Polity**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Survey of constructivist research. Comparisons of constructivist theories, comparisons to other theories of world politics, and reviews of exemplary empirical applications.

### **PSC 794 - Advanced Quantitative Political Analysis**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Multivariate data analysis, including regression, causal analysis, time series, and factor analysis. Theoretical uses, implications, and meanings of techniques. Techniques applied through computer analyses using SPSS, SAS.

### **PSC 795 - Antonio Gramsci and the Development of Cultural Marxism**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Upon sufficient interest

Power, cultural hegemony, and ideological struggle in capitalist societies. Theoretical currents running through Marx, Gramsci, and contemporary interpreters. Includes substantial readings from Gramsci's major theoretical statement, the "Prison Notebooks."

### **PSC 796 - Formal Theories of Choice**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly

Production of collective states from individual choice. Role of evaluative concepts like equality, liberty, and rights in such efforts. Design theory, game theory, impossibility theorems, voting rules, distributive justice, market models.

### **PSC 797 - Contemporary Normative Theory**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) At least 1x fall or spring

Major debates in contemporary democratic theory: extent of and rationale for political participation; relation of material and political equality; tension between liberty and equality. Theories of justice: Rawls, utilitarianism, Nozick.

### **PSC 798 - Political Cognition**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Upon sufficient interest

Research seminar applying constructs and techniques of cognitive science and allied fields to political psychology questions. Foundational works in cognitive science. Applications to participation, socialization, attitude formation, and political decision making.

### **PSC 800 - Selected Topics**

*Maxwell School of Citizenship and Public Affairs*  
1-6 credit(s) Irregularly  
Seminar  
Repeatable

### **PSC 810 - Selected Topics in Public Administration**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Seminar  
Repeatable

### **PSC 820 - Selected Topics in American Politics**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Seminar  
Repeatable

### **PSC 860 - Selected Topics in International Relations**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Seminar  
Repeatable

### **PSC 880 - Selected Topics in Comparative Politics**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Irregularly  
Seminar  
Repeatable

### **PSC 901 - Readings and Research on Political Theory and Methodology**

*Maxwell School of Citizenship and Public Affairs*  
1-3 credit(s) Every semester  
Repeatable

### **PSC 911 - Readings and Research on Public Administration and Policy**

*Maxwell School of Citizenship and Public Affairs*  
1-3 credit(s) Every semester  
Crosslisted with: PAI 930  
Repeatable 2 time(s), 9 credits maximum

### **PSC 920 - Readings and Research on American Politics**

*Maxwell School of Citizenship and Public Affairs*  
1-3 credit(s) Every semester  
Repeatable

### **PSC 960 - Readings and Research on International Relations**

*Maxwell School of Citizenship and Public Affairs*  
1-3 credit(s) Every semester  
Repeatable

### **PSC 970 - Experience Credit**

*Maxwell School of Citizenship and Public Affairs*  
1-6 credit(s) Every semester  
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.  
Repeatable

### **PSC 980 - Readings and Research on Comparative Politics**

*Maxwell School of Citizenship and Public Affairs*  
1-3 credit(s) Every semester  
Repeatable

### **PSC 990 - Independent Study**

*Maxwell School of Citizenship and Public Affairs*  
1-6 credit(s) Every semester  
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.  
Repeatable

### **PSC 999 - Dissertation**

*Maxwell School of Citizenship and Public Affairs*  
1-15 credit(s) Every semester  
Repeatable

## **South Asian Studies**

### **SAS 620 - Language Training in Preparation for Research Using Tamil**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s)  
Crosslisted with: TML 620  
Language training to prepare students to conduct research in areas that require knowledge of Tamil.  
Repeatable 3 time(s), 12 credits maximum

### **SAS 621 - Language Training in Preparation for Research Using Hindi**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Every semester  
Crosslisted with: HIN 620  
Language instruction to prepare students to conduct research in areas that require knowledge of Hindi. Permission of instructor.  
Repeatable 4 time(s), 12 credits maximum

### **SAS 622 - Gender & Sexuality in South Asia**

*Maxwell School of Citizenship and Public Affairs*  
3 credit(s) Odd academic yr e.g. 2007-8  
Crosslisted with: ANT 621  
Double Numbered with: SAS 421  
Seminar examines gender and sexuality in South Asia through ethnographies and films.

## GRADUATE COURSE CATALOG

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 626 - Cultures and Politics of Afghanistan and Pakistan**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: ANT 626, PAI 626

Double Numbered with: 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.

### **SAS 690 - Independent Study**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Irregularly

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. Repeatable

### **SAS 775 - Readings and Research in South Asian History**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester

Crosslisted with: HST 775

Graduate seminar introducing main debates in the historiography of late medieval and modern South Asia.

## **Sociology**

### **SOC 600 - Selected Topics**

*Maxwell School of Citizenship and Public Affairs*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **SOC 606 - Quantitative Methods**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Formulation of sociological research questions and the logic of testing and inference. Major quantitative and qualitative methodologies with emphasis on former. Relationship between problems formulation, theoretical perspective, and research methods.

### **SOC 611 - Sociological Theory**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Examination of theoretical approaches in sociology. Readings include writings by classic and contemporary social theorists, critiques of their theories and empirical writings that attempt to apply theoretical approaches to research studies.

### **SOC 614 - Introduction to Qualitative Research**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Every semester

Crosslisted with: EDU 603, WGS 614

Developing and using qualitative methods used by sociologists to conduct research. Underlying assumptions and limitations.

### **SOC 621 - Contemporary Sociological Theories**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Upon sufficient interest

Major contemporary approaches to sociological theory. Reading representative works and comparing their application to selected topics.

### **SOC 625 - Feminist Organizations**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: WGS 625

Double Numbered with: SOC 425

Analyzes feminist organizing/activist work within and beyond the U.S. Interrogates what counts as feminist organizing and how different organizations use feminist principles in work for social change. Additional work required of graduate students.

### **SOC 627 - New York City: Black Women Domestic Workers**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: AAS 627, WGS 627

Double Numbered with: SOC 427

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 635 - Political Sociology**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Double Numbered with: SOC 335

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 645 - The Caribbean: Sex Workers, Transnational Capital, and Tourism**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) At least 1x fall or spring

Crosslisted with: AAS 645, WGS 645

Double Numbered with: SOC 445

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 646 - The Social Impact of the Internet**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Double Numbered with: SOC 446

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 648 - The Dynamics of Prejudice and Discrimination**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Double Numbered with: SOC 448

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 649 - The Sociology of Evil**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Double Numbered with: SOC 449

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 651 - Classics in the Sociology of Religion and Morals**

*Maxwell School of Citizenship and Public Affairs*

3 credit(s) Irregularly

Crosslisted with: ANT 651, REL 651

Classical sociological writings of Emile Durkheim and Max Weber and their contemporary significance.

## GRADUATE COURSE CATALOG

### **SOC 663 - Studies in Urban Sociology**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Upon sufficient interest  
Life and structure of American cities. Sociological perspectives on urban life, growth, decline, and restructuring of cities.

### **SOC 664 - Aging and Society**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Crosslisted with: WGS 664  
Double Numbered with: SOC 364  
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 666 - Sociology of Formal Organizations**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Formal and informal structure and decision making in industrial, governmental, religious, educational, and professional organizations. Their potential for democratization. Interorganizational relationships.

### **SOC 670 - Experience Credit**

#### ***Maxwell School of Citizenship and Public Affairs***

1-6 credit(s) Irregularly  
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.  
Repeatable

### **SOC 677 - Class, Status, and Power**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Upon sufficient interest  
Double Numbered with: SOC 377  
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 704 - Science, Technology, and Society**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Sociology and social history of science and technology. Interaction of science, technology, and society. Technical controversies. Planning technological change. Suggested complement to PSC 705.

### **SOC 714 - Intermediate Social Statistics**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Introduction to multivariate statistical techniques to social science data.  
PREREQ: SOC 513

### **SOC 800 - Selected Topics**

#### ***Maxwell School of Citizenship and Public Affairs***

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **SOC 810 - Readings on Theory and Methodology**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Repeatable

### **SOC 811 - Advanced Seminar in Qualitative Research I**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Crosslisted with: EDU 810, WGS 812  
Expand fieldwork skills and increase theoretical understanding: emphasis on "thinking qualitatively;" intensive fieldwork.  
PREREQ: EDU 603/SOC 614

### **SOC 812 - Advanced Seminar in Qualitative Research II**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Crosslisted with: EDU 815  
Applications to issues of special education and related educational or human service settings.

### **SOC 813 - Advanced Social Statistics**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Upon sufficient interest  
Examination of some current issues in multivariate analysis. Most issues examined are based on linear model. Focus varies by term. Examples of topics covered are path analysis, non-recursive models, unmeasured variables and measurement issues.

### **SOC 821 - Feminist Methodologies**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Upon sufficient interest  
Crosslisted with: WGS 821  
The feminist critique and its implications for planning, conducting, and reporting on empirical studies.

### **SOC 825 - Foundations of Organizational Sociology**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Odd academic yr e.g. 2007-8  
Examines fundamental questions and approaches related to the sociological study of complex, formal organizations. Readings enable students to understand the intellectual development of theory and various historical shifts in emphasis in the field.

### **SOC 833 - Race, Class and Gender**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Upon sufficient interest  
Crosslisted with: WGS 833  
Intersecting dimensions of inequality that structure social life in contemporary societies. Multiple effects of cross cutting oppressions and privileges, including sexuality and ability/disability.

### **SOC 880 - Seminar: Selected Areas of Social Organization and Change**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Every semester  
Provides an opportunity for staff and students to select and explore currently significant areas in the study of social organization and change.  
Repeatable

### **SOC 997 - Master's Thesis**

#### ***Maxwell School of Citizenship and Public Affairs***

1-6 credit(s) Every semester

### **SOC 999 - Dissertation**

#### ***Maxwell School of Citizenship and Public Affairs***

1-15 credit(s) Every semester  
Repeatable

## **Social Science**

### **SOS 601 - Fundamentals of Conflict Studies**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Every semester  
Crosslisted with: PAI 601  
Introduction to a broad range of areas related to the analysis and resolution of conflict, focusing on the interdisciplinary study of defining, understanding, and addressing conflict.

### **SOS 604 - Public Policy Analysis: Theory and Practice**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
Crosslisted with: PSC 602  
Overview of policy literature, including political economy and practical politics. Formal analyses and case studies.

## GRADUATE COURSE CATALOG

### **SOS 620 - Interpersonal Conflict Resolution Skills**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) At least 1x fall or spring  
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.  
Repeatable

### **SOS 621 - Mediation:Theory and Practice**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Only during the summer  
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.

### **SOS 623 - Leadership: Theory and Practice**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Only during the summer  
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.

### **SOS 624 - Conflict Resolution in Groups**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Only during the summer  
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.

### **SOS 625 - The European Union**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Crosslisted with: HST 625  
Interdisciplinary introduction to history, politics, and economics of the European community.

### **SOS 705 - Theories of Development**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Even Academic Yr e.g. 2004-5  
Crosslisted with: GEO 705  
Review of theories of development, economic growth, and social change. Comparison of explanatory power and limits of each theory.

Review of prospects for synthesis and implications for empirical research in geography and other social sciences.

### **SOS 716 - Foundations of American Political Thought**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Crosslisted with: HST 682, PSC 716  
American political thought to about 1820. Puritans, American Revolution, establishment of the Constitution, and thought of Hamilton and Jefferson.

### **SOS 750 - Readings and Research in Social Sciences**

#### ***Maxwell School of Citizenship and Public Affairs***

1-9 credit(s) Irregularly  
Interdepartmental seminars for graduate students enrolled in the social sciences program. Open to students in the respective disciplines.  
Repeatable

### **SOS 890 - Readings and Research in International Development Policy**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
For students preparing research for Ph.D. or Masters thesis, or in-depth research papers. Permission of instructor.  
Repeatable

### **SOS 991 - Social Science Dissertation Proposal**

#### ***Maxwell School of Citizenship and Public Affairs***

3 credit(s) Irregularly  
Seminar in evaluating and developing research design. Application of social science methods to a specific research project. Preparation of detailed dissertation proposal by each student.

### **SOS 999 - Dissertation**

#### ***Maxwell School of Citizenship and Public Affairs***

1-15 credit(s) Every semester

## **Maxwell School of Citizenship and Public Affairs Faculty**

Lamis Abdelaaty, Assistant Professor, Political Science

Ph.D., Princeton University, 2014  
International relations, comparative politics, human rights and humanitarian action, asylum and migration, international organizations and delegation, ethnic politics, research design

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, 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; Maxwell 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



## GRADUATE COURSE CATALOG

- 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  
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  
Mehrzad Boroujerdi, Professor and Chair, 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, postcolonial 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  
Craig 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  
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, African archaeology and history, archaeology and popular culture, general anthropology  
Thomas H. Dennison, Professor of Practice; Co-Director, Masters in Public Health Program;

## GRADUATE COURSE CATALOG

Program Advisor, Health Service Management and Policy (HSMP), Public Administration & International Affairs  
Ph.D., Pennsylvania State University, 1987  
Health care administration, finance and policy

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

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, 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. Fairchilds, 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

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, Associate Professor, Public Administration and International Affairs  
Ph.D. University of Wisconsin, Madison, 2004  
Public economics, labor economics, applied microeconomics

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; gender; youth cultural practices; comparative education; aging, care, and responsibility; and the Balkans

Matthew Huber, Associate Professor, Geography  
Ph.D. Clark University, 2009  
political economy, historical geography, energy and capitalism, oil, resource governance and social theory

Hugo B. Jales, Assistant Professor, Economics  
Ph.D. University of British Columbia, 2015  
Labor economics, econometrics

Seth Jolly, Associate 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

## GRADUATE COURSE CATALOG

### 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

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

Osamah 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

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

Toponymology, 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

## GRADUATE COURSE CATALOG

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, Professor, 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

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

Jennifer Montez, Assistant Professor, Sociology  
Ph.D., University of Texas at Austin, 2011  
Life course and aging, social demography, medical sociology

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

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

Sean O'Keefe, University Professor and Howard G. and S. Louise Phanstiel Chair in Strategic Management and Leadership, Public Administration and International Affairs  
M.P.A., Syracuse University, 1978  
Public management, national security policy and strategy, public finance and public budgeting, financial management, technology development and innovation management, executive leadership

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

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 nongovernmental 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, 2014  
Archaeology of colonialism, historical archaeology, Guatemala, New England, postcolonial theory, materiality, foodways

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

## GRADUATE COURSE CATALOG

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. Reher, 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

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, Chapple Family Professor of Citizenship and Democracy; Political Science

Ph.D., Claremont Graduate School, 1988

International relations

Tod D. Rutherford, Professor, 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, Panafrikanism, African American politics

Rebecca Schewe, Assistant Professor, Sociology

Ph.D., University of Wisconsin-Madison, 2011

Environmental and natural resource sociology, food and agriculture, rural sociology

Mark G. Schmeller, Associate Professor, History  
Ph.D., University of Chicago, 2001

18th and 19th century American intellectual, political and legal history

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

Native North America, Navajo, Museum Studies, issues of representation, indigenous manipulation of stereotypes, notions of personhood, notions of whiteness, 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

James B. Steinberg, Dean and University Professor  
J.D., Yale University

Public affairs, foreign policy and national security

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

## GRADUATE COURSE CATALOG

- 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
- Danielle M. Thomsen, Assistant Professor, Political Science  
Ph.D., Cornell University, 2014  
American politics, political parties, campaigns and elections, Congress, partisan polarization, gender and politics
- 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, Associate Dean and Chair and 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
- John C. Western, Professor, Geography  
Ph.D., University of California, Los Angeles, 1978  
Social, cultural, urban geography; Southern Africa, Europe
- Peter J. Wilcoxon, Professor, Public Administration & International Affairs  
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 and Chair, 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

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

Media & Education, CAS

Advertising, MA

Arts Journalism, MA

Audio Arts, MA

Broadcast and Digital Journalism, MS

Communications Management, MS

Computational Journalism, MS

Documentary Film and History, MA

Magazine, Newspaper, and Online Journalism, MA

Media & Education, MA

New Media Management, MS

Media Studies, MA

Photography, MS

Public Diplomacy, MS/MA

Public Relations, MS

Television, Radio and Film, MA

Graduate: Doctoral Level

Mass Communications, PhD

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:

Demonstrate strong writing ability.

Demonstrate the ability to construct and tell a story effectively in spoken words, images, text and through multi-media.

Understand and make use of information technology, and grasp its import for society.

Understand effective visual language and how to apply it to create visual messages and enhance communications.

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.

Think analytically, gain numerical proficiency and learn to develop well-researched positions on

issues.

Demonstrate knowledge of the historical traditions in public communications and of industry practices and products.

Demonstrate a knowledge of ethical practice in the communications field, along with an understanding of the responsibilities media practitioners have for the public welfare.

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.

Demonstrate the ability to work within a team under deadline pressure.

Develop the knowledge to compare and contrast media systems around the world.

Learn to value, embrace and support diversity in society and the media.

Learn to access, evaluate, synthesize and make use of information in the creation of media products.

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.

## Graduate Education

Lorraine Branham, Dean

Joel K. Kaplan, Associate Dean for Professional Graduate Studies

Dennis Kinsey, Director of Doctoral Studies  
Maria P. Russell, Director, Executive Education Programs

The S. I. Newhouse School of Public Communications offers Master's degree programs in advertising; arts journalism; audio arts; broadcast and digital journalism; computational journalism; documentary film and history; magazine, newspaper, and online journalism; media and education; new media management; photography; public diplomacy; public relations; and television, radio and film. In addition to these residential programs, the Newhouse School offers an online Master's program in communications with specializations in advertising, public relations, and journalism innovation. A Certificate of Advanced Study is also available in media and education in conjunction with the School of Education.

In addition to the professional Master's degree

# GRADUATE COURSE CATALOG

programs, the School offers a research-based Master's degree program in media studies.

At the executive, mid-career level, the Newhouse School offers an interdisciplinary, Master's degree program in communications management for those who have a minimum of five years full-time experience in public relations or communications.

At the doctoral level, the mass communications program is designed for advanced study in research, analysis of public communications, and teaching. For a complete listing of faculty members associated with the Newhouse School, see the Faculty section of the Graduate Course Catalog.

## Admission

### Master's Degree Programs

Applicants for Master's degree programs must have Bachelor's degrees from accredited colleges or universities and, with the exception of applicants to the Audio Arts, the online Communications program, Media and Education, and the Photography programs, they must take the Graduate Record Examination. (GMAT scores can be substituted for applications to the New Media Management program.) Television, Radio and Film applicants have the option of submitting either scores from the GRE exam or a portfolio of professional accomplishments. Applicants to the photography Master's program and to the executive mid-career Master's program in communications management are each required to submit a portfolio for admission.

International students who have not received a previous degree from a college or university in the United States or who have not studied for one year at a college or university in an English-speaking country must take the TOEFL (Test of English as a Foreign Language) examination or IELTS (International English Language Testing Systems) examination, in addition to the GRE.

More detailed information about the application can be found at <http://newhousemasters.syr.edu>. Inquiries for the professional Master's programs should be directed to the Graduate Records Office, S. I. Newhouse School of Public Communications, [pcgrad@syr.edu](mailto:pcgrad@syr.edu), 315-443-4039 (voice), 315-443-1834 (fax). Inquiries for the research-based Media Studies program should be addressed to [masscomm@syr.edu](mailto:masscomm@syr.edu), 315-443-3372, and inquiries about executive Education should be directed to [mprussel@syr.edu](mailto:mprussel@syr.edu), 315-443-3368.

### Doctoral Program

Only students with outstanding records will be considered. A candidate must be a graduate of an accredited college or university and have a

master's degree or equivalent in communications or a field considered appropriate by the school's committee on graduate programs. Inquiries about the doctoral program should be directed to the Director of Doctoral Studies, Newhouse School of Public Communications, [masscomm@syr.edu](mailto:masscomm@syr.edu), 315-443-3372.

### Program Requirements for Master's Degree

All candidates for master's degrees must satisfactorily complete no fewer than 30 graduate credits approved by the dean of the S.I. Newhouse School of Public Communications and the Graduate School. The specific number of credits required varies from 30 to 58 credits. (See the program descriptions for specific requirements under Academic Offerings.) At least half of a student's classroom courses must be 600-level or above. Except where noted, Newhouse courses carry three credits.

Master's students at Newhouse are allowed to transfer a maximum of 20% of their total required credits into their program. Specific credit earned at another accredited graduate school must carry at least a grade of B, must have been taken within seven years, must not have been used toward an undergraduate degree or its equivalent, must form an integral part of the degree program, and must be evaluated by the academic department and the Associate Dean for Professional Graduate Studies. Students must fill out a petition form and submit a syllabus and an official transcript. Petitions for transfer credit should be completed during the student's first semester of study.

The completion of a specific number of courses does not, in itself, qualify the candidate for completion of the program. Each of the programs of study requires the completion of course work as well as a culminating experience through which the student is given the opportunity to demonstrate his or her mastery of public communications. This culminating experience may involve a capstone course, comprehensive examination, special project, or a thesis, depending on the student's program of study.

A thesis is required in the Media Studies program and, in certain cases, allowed in other programs. A thesis or graduate project is also required for the Master's degree in Photography. The thesis is regarded as a test of the student's ability to do investigative work and to present the results in clear, accurate, and logical form. A good command of literary expression is required. A student required or electing to do the thesis must register for 3 to 6 credits of thesis work.

The Television, Radio and Film program requires students to complete their program with a comprehensive examination. Students must complete a minimum of 30 credits before taking

the exam.

Public relations students who do not pursue the thesis option must complete an internship in addition to their comprehensive examination.

In addition to the Master's degree programs described above, the School offers dual-degree options with the College of Law on a space-available basis.

## Graduate Awards

### Newhouse Foundation Fellowship/Internship for Minorities

Established in 1993, these awards are made annually to two minority students who wish to enroll in the Magazine, Newspaper, and Online Journalism Master's program and who intend to pursue a newspaper career. Only students who have majored in subjects other than journalism on the undergraduate level are eligible. Funded by the Newhouse Foundation, each award provides free tuition and a monthly stipend for 18 months of study (during which time the student also works as a reporting intern at the Syracuse newspapers).

### Doctoral Awards

In addition to University fellowships and scholarships, the Newhouse School funds up to five new doctoral students each year who help support research or the teaching of undergraduate classes. Some research assistants work with either the John Ben Snow Chair or the S.I. Newhouse Professor.

### Liu Foundation Multicultural Scholarships

Established in 2003, these awards are designated for outstanding applicants who demonstrate financial need, have a background and/or interest in multicultural communications, and demonstrate a career interest related to multicultural communications. Such background interest might be indicated by undergraduate study abroad, an undergraduate major in a foreign language, and/or communications work experience in a non-U.S. setting.

### Instructional Associates

The Newhouse School has a number of instructional associates (IA) who spend 5 to 20 hours per week helping faculty members with classes or labs. They are paid \$16.85 per hour and also receive tuition scholarships (usually 6 or 9 credits per semester, depending upon the position). Some positions are just for one



## GRADUATE COURSE CATALOG

semester, and others are for the academic year; the appointments depend upon what courses are being taught for a particular semester. IAs assist with classes by leading discussion sessions, helping with grading and meeting with students during office hours. Some also work in labs, helping undergraduate students with specialized equipment.

### Executive Education

#### Master of Science in Communications Management

The executive master's degree program in communications management is for experienced public relations professionals (minimum of five years of full-time experience). Since 1995, the Newhouse School's fine reputation in public relations education has been extended to experienced professionals whose busy work and personal lives won't allow them to earn a master's degree in the traditional manner - even if a good program is just a few miles away. Students come from all types of public relations specializations. They come to our program from across the United States and countries around the world, including Argentina, Brazil, Canada, Germany, Hong Kong, Italy, Lebanon, Poland, Switzerland, the Sudan, Taiwan, Vietnam, and the Caribbean.

This interdisciplinary program combines courses in public relations, business and leadership -- the fusion of the knowledge, skills and abilities needed for career advancement in the changing face of the public relations profession in an ever-changing world. Students participate in a highly effective hybrid format of short-term residencies and distance learning. A new class forms once each year in August. Application deadline: May 15.

For more information contact the director, Maria Russell, at [mprussel@syr.edu](mailto:mprussel@syr.edu) or at 315-443-3368.

### 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; digital 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 HDSLR 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. In Newhouse 2, there are also two radio news production labs, and writing labs equipped with ENPS®, the most widely used broadcast newsroom software in the world. Several voice recording booths for recording voice tracks for radio and television stories support the creation of newscasts on multiple platforms. Students edit voice tracks using Audacity® and Adobe Audition®.

In September 2014, the Dick Clark Studios and Alan Gerry Innovation Center were dedicated and open for class and student use. This five-studio complex in Newhouse 2 is supported by three control rooms, all equipped with state-of-the-art technology. Two large soundstages and two smaller flex studios can be configured for a variety of single and multicamera productions. The Broadcast and Digital Journalism newsroom and studio feature a fully automated system for newscast labs that integrate robotic cameras, graphic systems and digital video servers. Technology includes Ross Vision® video switchers, Xpression graphic systems, Overdrive automation, Lawo® audio consoles, Ikegami® broadcast cameras, Imagine® video servers, Avid Isis® storage, and Evertz® routing systems. The Gerry Innovation Center encourages students to experiment with new technology including drones, a 30-foot touch screen, Google watches and glasses, a 360° camera, and technology which supports the creation virtual reality programming. The University's Orange Television Network <http://orangetv.syr.edu/> is also headquartered in Newhouse 2.

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; email [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

## GRADUATE COURSE CATALOG

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 W20-Newhouse Center for Social Commerce

The W20 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 W20 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 W20 offices across the United States and abroad. For more information, contact Maria Russell, campus director, Newhouse Executive Education Programs at 315-443-4066.

### Transactional Records Access Clearinghouse (TRAC)

The Transactional Records Access Clearinghouse (TRAC) is a data gathering, research and distribution organization based at the Newhouse School in partnership with the Martin J. Whitman School of Management at Syracuse University. TRAC’s purpose is to provide the American people-and institutions of oversight such as Congress, news organizations, public interest groups, businesses, scholars and lawyers-with

comprehensive information about the staffing, spending and enforcement activities of the federal government. For more information, email [trac@syr.edu](mailto:trac@syr.edu)

### 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, Library PressDisplay, ProQuest Historical Newspapers, SCOLA, AP Images, NBC Learn Higher Ed, Vanderbilt University’s Television News Archive, JSTOR, Communications Source, World Advertising Research Center, Ad\$ponder, Adforum, ProQuest Dissertations & Theses Global, 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, media trade magazines, collections of the memoirs of foreign correspondents; and private papers of American news people, 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.

### Master’s

### Advertising, MA

### Contact:

James Tsao, Chair  
318 Newhouse 3, 315-443-7362

### Faculty

Beth Egan, Amy P. Falkner, Edward W. Russell, Brian Sheehan, James Tsao, Melanie White

Advertising is a fast-paced industry, changing with the times and, along with other communications professions, riding the digital wave into new waters. Our one-year, intensive advertising graduate program prepares students to work in this exciting industry and gives them the professional strategies they’ll need to succeed and thrive.

This 36-credit program leads to a Master of Arts (M.A.) in Advertising.

### Required Courses

**ADV 523 - Digital Branding and Strategy 3 credit(s)**

**ADV 604 - Seminar in Advertising Practice and Leadership 3 credit(s)**

**ADV 611 - Strategic Principles and Practices 3 credit(s)**

**ADV 612 - Strategic Brain: Account Planning and Research 3 credit(s)**

**ADV 613 - Strategic Brain: Media Planning 3 credit(s)**

**ADV 615 - Creative Brain 3 credit(s)**

**ADV 625 - Integrated Advertising Campaigns 6 credit(s)**

**COM 698 - Media Law 3 credit(s)**

**GRA 617 - Visual Communications Theory and Practice 3 credit(s)**

### Academic Emphasis (6 Credits)

Students are expected to complete an emphasis that satisfies their individual career goals. Faculty advisers will work with students to put together two electives to fulfill the requirement and to build a critical understanding of their study

## GRADUATE COURSE CATALOG

interest in advertising. This approach helps to accommodate the significant changes occurring in the marketplace and media by providing a fluid curriculum that can readily react to change.

Recommended emphases can include, but are not limited to the following:

Digital Engagement

Brand Management

Media Planning

Cross-Cultural Advertising

Fashion Promotion

Health Promotion

Non-Profit Promotion

Total: 36 Credits

### Arts Journalism, MA

#### Contact:

Johanna Keller, Director, jokeller@syr.edu

Janet Anthony, Assistant Director, jcanthon@syr.edu

333 Newhouse 2, 315-443-9251

#### Faculty

Theo Cateforis, Johanna Keller, Stephen Meyer, David M. Rubin, Sascha Scott, Robert J. Thompson

The Goldring Arts Journalism program is the first program at an accredited journalism school to train journalists to write about arts and culture. Based at the S.I. Newhouse School of Public Communications, the program is an interdisciplinary collaboration with the School of Architecture, the College of Arts and Sciences, and the College of Visual and Performing Arts, giving students access to an array of arts and journalism courses taught by writers, academics, and artists.

#### Program Requirements

The curriculum offers a uniquely flexible combination of arts and communications courses to meet the educational objectives of each student. The student will arrive with specialized expertise or declared interest in areas such as architecture, film, music, popular culture, television, theater, or the visual arts. Working closely with two advisors--the program director and a faculty member specializing in one of the concentrations--students identify their educational objectives and create their own curricula of journalism and arts courses. Through its core courses, the Goldring Arts Journalism program offers opportunities for experiential and cross-disciplinary learning. During the program year, students are encouraged and assisted in interning

at media organizations, creating community arts online content, visual and audio journalism, as well as undertaking freelance professional publication in order to build and expand a professional portfolio.

The 36-credit Master of Arts (M.A.) degree is completed in one calendar year. The intensive program begins at Syracuse University in early July. In the fall and spring, students take journalism and arts classes and have the option of a magazine or newspaper internship. During the winter break, students attend an arts-immersion trip to New York City, which includes attendance at theater and music performances, film screenings, museum and gallery tours, architectural site visits, symposia, and lectures; encounters with artists and administrators at major arts institutions; and writing workshops with arts editors and writers. The program concludes with a capstone writing experience in May and June. The program was made possible by a gift from SU Trustee and arts patron Lola Goldring and her husband Allen. Additional information is available at <http://artsjournalism.syr.edu>

#### Required Courses (24 Credits)

**AJP 602 - Arts Reporting 3 credit(s)**

**AJP 606 - Feature and Critical Writing 3 credit(s) \***

**AJP 611 - Literature of Arts Journalism 3 credit(s)**

**AJP 615 - Cultural Issues I 1 credit(s)**

**AJP 616 - Cultural Issues II 1 credit(s)**

**AJP 621 - Practicum: NYC Arts 1 credit(s)**

**AJP 631 - Capstone Arts Writing Workshop 6 credit(s)**

**COM 698 - Media Law 3 credit(s)**

**NEW 605 - News Writing and Reporting 3 credit(s) \***

#### Note:

\* Students with substantial journalism background may petition to substitute a suitable elective.

#### Electives (12 Credits)

Additional graduate courses in areas such as architecture, film, fine arts, music, or theater, as well as journalism, communications, and writing courses.

#### Recommended But Not Required:

**AJP 636 - Cultural Media Practicum 3 credit(s)**

Total: 36 credits

### Audio Arts, MA

#### Contact:

Douglas Quin, Co-Director  
315-443-7398, dhquin@syr.edu

David Rezak, Co-Director  
315-443-3280, dmrezak@syr.edu

#### Faculty:

Various faculty from the College of Visual and Performing Arts' and the S.I. Newhouse School of Public Communications.

### M.A. in Audio Arts

Audio Arts is a joint graduate studies program harnessing the experience and strength of the College of Visual and Performing Arts and the S.I. Newhouse School of Public Communications. Four specialization tracks are offered in distinctive areas of audio practice: Music Industry, Audio Recording, Radio Horizons and Music Video.

The holder of an M.A. in the Audio Arts with specialization in Music Industry will be prepared to enter one of dozens of career paths. Graduates will embrace the trust-based relationship they must develop with artists and be able to think critically and constructively about audio and music and making a market in an art form. The student's self-directed curricular specialization choices and internship focus will dictate the job options.

#### Admission

The Audio Arts admissions process seeks to measure applicants along several criteria in search of a holistic measure of student potential. Though experience in music and audio is valued in the process, the most important aspects in a prospective student's profile are a demonstrated work ethic, broad and varied education and life experience and deep passion to succeed and contribute to the audio arts.

#### Accreditation

The Audio Arts Master's Program was created to comply with and/or exceed the standards of two accrediting bodies: The National Association of Schools of Music and the Accrediting Council for Education in Journalism and Mass Communication.

## GRADUATE COURSE CATALOG

### Program Requirements

Required Courses: 24 credits

**EEE 620 - Foundations of Entrepreneurship**  
**3 credit(s)**

**RAE 601 - Audio Arts Graduate Survey**  
**3 credit(s)**

**RAE 610 - Audio Arts Colloquium**  
**1 credit(s)** (three 1-credit modules)

**RAE 675 - Audio Arts Industry Practicum**  
**3 credit(s)**

**TRF 510 - Specialized Practice**  
**1 credit(s)**  
(three 1-credit modules)

**TRF 605 - Audio Arts Practices**  
**3 credit(s)**

**TRF 637 - Telecommunications Law&Policy**  
**3 credit(s)**

Capstone in Audio Arts, choose one:

**TRF 600 - Selected Topics 1-6**  
**1-6 credit(s)**  
Human-Computer Interaction

**TRF 642 - Television Production Workshop**  
**3 credit(s)**

**TRF 668 - Advanced Audio**  
**3 credit(s)**

**TRF 669 - Advanced Filmmaking**  
**3 credit(s)**

### Note on Newhouse School-wide Requirements for Graduate Programs

The required law and research components are fulfilled with the following coursework:

Law Component: TRF 637 - Telecommunications Law&Policy

Research Component: both RAE 601 - Audio Arts Graduate Survey, and EEE 620 - Foundations of Entrepreneurship.

Together, these courses introduce students to the practice and application of research to audio arts issues and ideas. The dynamic context of entrepreneurial foundations is a particularly fitting place for students in the program to develop their research skills in anticipation of the uncertain and often volatile audio arts fields they will one day lead.

In addition, the Research for Entertainment Media class (TRF 696) will be an elective part of each area of audio arts specialization.

Electives: 12 credits

Electives include twelve credits of specialization to focus on an individual's interests and strengths. The curriculum will allow for enough elective flexibility to create a "focus area":

Fields of specialization

Music Industry

Sound Production & Arts

Radio Horizons

Music Video

### Transfer Credit

Up to 6 credits of approved non-matriculated graduate coursework

Satisfactory Progress:

3.0 Minimum GPA for Graduation

Total Credits Required: 36

Degree Awarded: M.A. in Audio Arts

## Broadcast and Digital Journalism, MS

### Contact:

Chris Tuohey, Chair,  
318B Newhouse 3, 315-443-4118.

### Faculty

Hubert Brown, Michael Cremedas, Barbara C. Fought, Dona Hayes, Keren Henderson, Suzanne Lysak, John Nicholson, Simon Perez, Donald C. Torrance, Chris Tuohey, Randy Wenner

The master's degree program in broadcast and digital journalism is designed to provide the necessary combination of practical training and theoretical study to prepare students for careers in electronic journalism. All students take required coursework in writing, information gathering and reporting, editing, producing, and anchoring for both traditional and new media platforms. No previous training in broadcasting or journalism is required.

The final on-campus capstone course for the master's degree involves the production of two daily newscasts. Newscast production takes place in our state-of-the-art combined newsroom and HD studio. The newsroom space includes 27 workstations equipped with ENPS® (a widely used news production system), Adobe Premiere Pro © for video editing and Ross Xpression © for graphic creation. The studio portion features fully robotic cameras, a video wall, two large screen monitors, an anchor desk and interview area. The adjacent control room is fully automated with Ross Overdrive © technology. Student journalists are also able to report live from the scene of news

stories using Dejero © portable equipment.

The on-campus capstone is followed by a summer seminar and internship in Washington, D.C. (Students who choose to be involved in the Sports Communications Emphasis may be placed in internships elsewhere.)

This 40-credit program leads to a Master of Science (M.S.) in Broadcast and Digital Journalism.

### Required Courses (34 Credits)

**BDJ 510 - Topics in Specialized Practices**  
**1 credit(s)**

**BDJ 611 - Writing for Broadcast and Digital News**  
**3 credit(s)**

**BDJ 636 - Critical and Historical Perspectives on Broadcast Journalism**  
**2 credit(s)**

**BDJ 663 - News Reporting I**  
**3 credit(s)**

**BDJ 664 - News Reporting II**  
**4 credit(s)**

**BDJ 665 - News Producing & Presenting**  
**6 credit(s)**

**BDJ 667 - News Reporting III**  
**4 credit(s)**

**BDJ 675 - Washington Professional Experience**  
**4 credit(s)**

**COM 647 - Applied Media Research**  
**3 credit(s)**

**COM 670 - Experience Credit**  
**1-6 credit(s)**

**COM 698 - Media Law**  
**3 credit(s)**

### Electives (6 Credits, Choose Two Courses)

Selection varies in any given year.

Total: 40 credits

## Communications Management, MS

Limited Residency/Distance Learning Executive Program For Public Relations Professionals

### Contact:

Maria P. Russell, Academic Director  
314 Newhouse 3, 315-443-3368  
Fax: 315-443-3946  
commgt@syr.edu

[http://newhouse.syr.edu/Academics/Communications\\_Management/overview.cfm](http://newhouse.syr.edu/Academics/Communications_Management/overview.cfm)

## GRADUATE COURSE CATALOG

### Program Requirements

Since 1995, the S.I. Newhouse School of Public Communications and its Department of Public Relations have offered an interdisciplinary 36-credit Independent Study Degree Program leading to a Master of Science (M.S.) degree in Communications Management for a select group of experienced public relations and communications practitioners (minimum five years full-time experience in public relations or related field required).

The master's program draws upon the interdisciplinary strengths and international reputations of the Newhouse School, the Maxwell School of Citizenship and Public Affairs, and the Martin J. Whitman School of Management. The program takes two years to complete, with a required five-day residency on the Syracuse University campus at the start of the fall term (mid-August); a required five-day residency at Syracuse University's Lubin House in New York City in the spring term (early January); and a required five-day summer residency in Syracuse (mid-May). Students enroll in as many terms as meet their professional and personal schedules, but each enrollment requires the residency.

During the residencies, faculty members present an overview of the entire course and the guidelines for independent study. Upon return to his/her community, the student studies and completes assignments at his/her own pace, meeting predetermined deadlines over the 15-week semester. Access to faculty and fellow students is ongoing through the use of Blackboard, conference calls, and online sessions. After completing 30 to 33 credits (10 or 11 three-credit courses), the student chooses to complete the program with either a 6-credit master's thesis or a 3-credit applied research project and one additional elective.

Courses in this interdisciplinary program are drawn from the following general areas: public relations theory, public opinion research, analytics, communications law, management, communications theory, social and digital media, accounting, finance, organizational behavior, strategic planning, crisis management, problem-solving, conflict resolution, negotiation, leadership, advertising, branding, marketing, and public relations measurement and evaluation.

### Communications, MS

#### Contact:

Joel Kaplan  
Acting Program Director  
(315) 443-2366  
jkkaplan@syr.edu

### Faculty:

Amy Falkner; Rochelle Ford; Barbara Fought; William Jasso; Hua Jiang; Dennis Kinsey; Stephen Masicla; Kevin O'Neill; Dan Pacheco; David Rubin; Brian Sheehan; David Sutherland; Corey Takahashi; James Tsao

### Description:

The online M.S. in Communications offers an in-depth study and experience with digital systems, strategies, and emergent trends critical, along with foundational knowledge in media law, applied research, theory and practice essential for successful leadership in the changing media industry. The program is intended for students with bachelor's degrees and/or backgrounds in media and communications, journalism, public relations, advertising, media business management, and related fields. Students may choose from three secondary focus tracks: Journalism Innovation, Public Relations, and Advertising.

### Part-time study:

This is an online program that may be completed on a full-time or part-time basis.

### Requirements: Core Courses (18 Credits)

The online M.S. in Communications is a 33-credit hour program (ten 3-credit online courses and 3 credit hours of residencies).

**ICC 602 - Introduction to Digital Communications 3 credit(s)**

**COM 617 - Multimedia Storytelling 3 credit(s)**

**ICC 612 - Digital Communications Systems 3 credit(s)**

**COM 627 - Social Media for Communicators 3 credit(s)**

**COM 698 - Media Law 3 credit(s)**

**ICC 606 - Applied Research in Content Management 3 credit(s) or**

**ADV 609 - Advertising and Public Relations Research Design 3 credit(s)**

### Secondary Tracks (Complete One Track, 9 Credits)

Courses are listed in the order they should be taken.

#### Advertising

**ADV 611 - Strategic Principles and**

**Practices 3 credit(s)**

**ADV 610 - Topics in Specialized Practice 3 credit(s)**

**ADV 523 - Digital Branding and Strategy 3 credit(s)**

#### Public Relations

**PRL 605 - Public Relations Theory 3 credit(s)**

**PRL 725 - Public Relations Management 3 credit(s)**

**PRL 615 - Public Relations Campaign Planning & Execution 3 credit(s)**

#### Journalism Innovation

**MNO 611 - Web and Mobile Story Production 3 credit(s)**

**MNO 612 - Data-Driven Journalism 3 credit(s)**

**MNO 613 - Emerging Media Platforms 3 credit(s)**

#### Capstone (3 Credits)

**ICC 622 - Digital Communications Strategy and Entrepreneurship 3 credit(s)**

#### Residencies (3 Credits)

**ICC 632 - Media Industry Leadership and Change 1.5 credit(s)** Taken twice.

Total Credits: 33

## Computational Journalism, MS

### Contact:

Stephen Masiclat, masiclat@syr.edu  
Professor, Co-Director, 255 Newhouse 3  
315-443-9243

Jae C. Oh, jco@syr.edu  
Associate Professor, Co-Director, 4-206 Sci & Tech

### Faculty

Aileen Gallagher, Roy Gutterman, Stephen M. Masiclat, Nancy McCracken, Kishan G. Mehrotra, Jae C. Oh, Adam R. Peruta

The computational Journalism program prepares students for the application of computation to the activities of journalism such as information gathering, organization, and dissemination while upholding values of journalism such as accuracy

## GRADUATE COURSE CATALOG

and verifiability. The program prepares students to learn computing fundamentals and skills required for supporting journalistic activities such as newsgathering, investigative journalism, verification/fact finding, and authoring/printing/publication/broadcasting of news, sharing and distribution of news information, editing and commenting on news.

### Admission:

Bachelor's degree from an accredited institution in Computer Science or Journalism, or Bachelor's degree from an accredited institution and significant experience working as a professional journalist (applicant must provide a portfolio of published/broadcast stories).

This 36-37 credit program leads to a Master of Science (M.S.) in Computational Journalism.

### Requirements:

Track No 1 Students with a B.S. in Computer Science or related degree

**CIS 668 - Natural Language Processing 3 credit(s)** or

**IST 664 - Natural Language Processing 3 credit(s)**

**COM 670 - Experience Credit 1-6 credit(s)**

**COM 698 - Media Law 3 credit(s)**

**CPS 688 - Algorithms for Computational Journalism and Linguistics 3 credit(s)**

**CPS 782 - Capstone Project Course for Computational Journalism 3 credit(s)**

**GRA 617 - Visual Communications Theory and Practice 3 credit(s)**

**ICC 505 - Web Journalism and Innovation 3 credit(s)**

**NEW 605 - News Writing and Reporting 3 credit(s)**

**MNO 601 - Principles: Business, History, and the Ethics of Journalism 3 credit(s)**

**MNO 617 - Multiplatform Reporting and Writing 3 credit(s)**

Journalism elective, subject to advisor's approval (3 credits)

Total Credits: 36

Track No 2 Students with a B.A. or B.S. in Journalism

**CIS 668 - Natural Language Processing 3**

**credit(s)** or

**IST 664 - Natural Language Processing 3 credit(s)**

**COM 670 - Experience Credit 1-6 credit(s)**

**COM 698 - Media Law 3 credit(s)**

**CPS 621 - Introduction to Probability and Statistics 4 credit(s)**

**CPS 688 - Algorithms for Computational Journalism and Linguistics 3 credit(s)**

**CPS 681 - Explorations in Computing and Programming 3 credit(s)**

**CPS 782 - Capstone Project Course for Computational Journalism 3 credit(s)**

**GRA 617 - Visual Communications Theory and Practice 3 credit(s)**

**ICC 606 - Applied Research in Content Management 3 credit(s)**

**NEW 535 - Newspaper and Magazine Practicum 1-3 credit(s)**

A Newhouse, CIS/CPS, IST elective, subject to advisor's approval (3 credits)

Total Credits: 37

Possible Elective Choices (others allowed with advisor's approval):

CIS options

**CIS 681 - Software Modeling and Analysis 3 credit(s)** or

**CSE 681 - Software Modeling and Analysis 3 credit(s)**

**CIS 687 - Object Oriented Design 3 credit(s)** or

**CSE 687 - Object Oriented Design 3 credit(s)**

IST options

**IST 657 - Basics of Information Retrieval Systems 3 credit(s)**

**IST 719 - Information Visualization 3 credit(s)**

**IST 736 - Text Mining 3 credit(s)**

Newhouse options

**ICC 600 - Selected Topics 1-6 credit(s)**  
Advanced Web Journalism/Innovation

ICC 600 - Selected Topics 1-3 credit(s)  
Multimedia Projects

**MNO 617 - Multiplatform Reporting and**

**Writing 3 credit(s)** (for students in track 2)

## Documentary Film and History, MA

### Contact:

Richard Breyer, Co-Director  
315-443-9249, rlbreyer@syr.edu

Gladys McCormick, Co-Director  
315-443-9325, gmccormi@maxwell.syr.edu

### Faculty

Richard L. Breyer, Richard Dubin, Tula Goenka, Sharon R. Hollenback, Norman A. Kutcher, Patricia H. Longstaff, Gladys McCormick, Evan Smith, Junko Takeda, Margaret Susan Thompson, Robert J. Thompson, Donald C. Torrance

The documentary film and history master's program is a cross-disciplinary program with the Maxwell School of Citizenship and Public Affairs. It is designed for those interested in studying the documentary from various points of view--production, distribution, new media, applications to education at all levels. This master's degree also offers students the opportunity to deepen their understanding of history at the same time that they acquire the practical skills of the filmmaker's craft. Documentary film and history students prepare to work as writers, editors, directors, designers, and executives at independent production companies and organizations, such as The History Channel, Learning Channel, and Public Broadcasting Stations. Graduates also teach media and history.

### Program Requirements

The program's curriculum stresses three general areas of study: writing and production, research, distribution and funding of documentaries and other nonfiction media.

Students in the program begin their studies with an intensive summer experience in July and finish with an internship and production of a documentary the following summer.

This 38-credit program leads to a Master of Arts (M.A.) in Documentary Film and History.

### Requirements

**COM 670 - Experience Credit 1-6 credit(s)**

**DFH 610 - Documentary Production Research 1 credit(s)**

**DFH 693 - Oral History Workshop 3 credit(s)**

**DFH 695 - Historical Narratives and**

## GRADUATE COURSE CATALOG

### **Interpretation 3 credit(s)**

HST elective Various topics (HST 500-997)

HST elective Various topics (HST 500-997)

### **HST 693 - Oral History Workshop 3 credit(s)**

### **HST 695 - Historical Narratives and Interpretation 3 credit(s)**

### **HST 802 - Modes of Analysis in History 3 credit(s)**

### **TRF 611 - Dramatic Writing for Television and Film 3 credit(s)**

### **TRF 637 - Telecommunications Law&Policy 3 credit(s)**

### **TRF 650 - Advanced Practice: Special Projects 1-3 credit(s)**

### **TRF 655 - Screenwriting and Production Workshop 3 credit(s)**

### **TRF 659 - Documentary Production 3 credit(s)**

TRF elective Various Topics (TRF 500-TRF 997)

Total: 38 Credits

## **Magazine, Newspaper, and Online Journalism, MA**

### **Contact:**

Melissa Chessher, Director  
318 Newhouse 3, 315-443-4004

### **Faculty**

Harriet Brown, Melissa Chessher, Steve Davis, Aileen Gallagher, Joel Kaplan, Stephen M. Masiclat, Dan Pacheco, Adam R. Peruta, James Shahin, Corey Takahashi

The magazine, newspaper, and online journalism program prepares students to work on the nation's newspapers, wire services, magazines, and online web sites. Students learn to meet professional standards in whichever specialization they choose: writing, reporting, design, or editing. The program emphasizes deadline requirements, reportage, and field study.

This 36-credit program leads to a Master of Arts (M.A.) in Magazine, Newspaper, and Online Journalism.

### **Required Courses**

#### **COM 698 - Media Law 3 credit(s)**

#### **GRA 617 - Visual Communications Theory**

### **and Practice 3 credit(s)**

#### **ICC 606 - Applied Research in Content Management 3 credit(s)**

#### **MNO 601 - Principles: Business, History, and the Ethics of Journalism 3 credit(s)**

#### **MNO 617 - Multiplatform Reporting and Writing 3 credit(s)**

#### **NEW 605 - News Writing and Reporting 3 credit(s)**

### **Editing (Choose One)**

#### **MNO 608 - Magazine Editing 3 credit(s)**

#### **NEW 508 - Newspaper Editing 3 credit(s)**

### **Electives (Choose Three; 9 Credits)**

Electives will be selected in consultation with the student's advisor from the broad range of graduate offerings in the Newhouse School and the University at large. Many students elect to complete an internship (NEW 535) at one of several Central New York newspapers. (Students choosing to participate in Sports Communications Emphasis take two additional one-credit seminars and will complete a total of 38 credits.)

### **Capstone (6 credits)**

#### **MNO 631 - Journalism Enterprise 3-6 credit(s)**

#### **COM 670 - Experience Credit 1-6 credit(s)**

#### **COM 690 - Independent Study 1-6 credit(s)**

Total: 36 credits

## **Media & Education, MA**

### **Contact:**

Dr. Barbara Applebaum Co-director, M&E; Chair, CFE, bappleba@syr.edu, 315-443-3343.

Dr. Michael Schoonmaker, Co-director, M&E; Chair, TRF, msschoon@syr.edu, 315-443-4004

Administrative assistant for program, Maryann Barker, mabarker@syr.edu, 315-443-3343.

### **Description**

This program brings together the fields of media and education, and is offered jointly by the School of Education and the S.I. Newhouse School of Public Communications. Using broad definitions, we see media as an umbrella term for a range of forms that communicate to a public and we define education as occurring in both formal

settings like schools and informal arenas like popular culture. This program addresses media production and analysis in relation to visual storytelling, combining an analysis of core issues in education with visual storytelling creation and production skills. The program will also speak to the cultural terrain of how people both make and make sense of media.

### **Program Requirements**

## **The MA degree explores areas such as:**

**Media Education:** educating teachers of media, including media literacy educators, community college professors, or those with an interest in film including licensed/certified K-12 teachers, in short those who want to bring the art of visual storytelling to educational settings.

**Youth Development:** addressing the field of education that takes place outside schools. It includes youth development community projects and youth media organizations.

**Media Literacy:** teach future educators of media literacy from a cultural studies perspective, which includes a tripartite focus on the text, the audience, and the political economy.

**Leadership in the Field:** propelling some students to move on to doctoral studies and further research in the academy.

### **Admission:**

The MA program will follow Syracuse University's general guidelines for admission of graduate study. That is, applicants must present respectable evidence of excellence with depth and dimension in their records. The review committee expects to admit students with an exemplary transcript, extraordinary letters of recommendation, a personal statement that reflects potential growth, and a demonstrated experience in education and/or media studies. Also, we will use the "Like-Live" interface to collect unrehearsed video responses to questions about goals and qualifications in relation to media and education.

### **Financial Support:**

The program will draw upon traditional graduate assistantship awards and scholarships. Furthermore, numerous scholarships are awarded to students whose backgrounds may have placed them at a disadvantage in academic and professional fields.

## GRADUATE COURSE CATALOG

### Learning Outcomes:

The program has three goals:

To teach students how to understand, interpret and demystify media and popular culture.

To have them create media in relation to education, broadly conceived.

To understand the social and political contexts of media in relation to education.

### Requirements:

Note: This program requires full time study except for the second summer session which requires only 3 credits.

First summer - Summer Session II  
Summer Institute (7 Credits):

**TRF 655 - Screenwriting and Production Workshop 3 credit(s)**

**EDU 603 - Introduction to Qualitative Research 3 credit(s)**

**M&E 610 - Media and Education Master's Colloquium 1 credit(s)**

This colloquium will create community and introduce students to legal, cultural and institutional issues in this field.

Fall Semester (13 Credits):

The visual media electives expose students to both old and new visual media, focusing in both courses on storytelling skills. The educational courses engage students on how educational projects are culturally situated. The colloquium during this semester emphasizes the development of an idea for the capstone project.

**M&E 610 - Media and Education Master's Colloquium 1 credit(s)**

Cultural Foundations Elective - (3 credits) One course from:

**CFE 605 - Race, Philosophy and Education 3 credit(s)**

**CFE 614 - Critical Issues in Dis/Ability and Inclusion 3 credit(s)**

**CFE 631 - Introduction to Sociology and Anthropology of Education 3 credit(s)**

**CFE 776 - Gender, Education & Culture 3 credit(s)**

Visual Media Elective I - (3 credits) One course from:

**COM 600 - Selected Topics 1-6 credit(s)**  
(section title) Social Media: Theory and Practice

**ICC 565 - Designing Interactivity 3 credit(s)**

**TRF 642 - Television Production Workshop 3 credit(s)**

**TRF 648 - Producing Radio: On Air to Online 3 credit(s)**

**TRF 651 - Filmmaking 3 credit(s)**

**TRF 653 - Short-form Production 3 credit(s)**

**TRF 654 - Music Recording 3 credit(s)**

**TRF 656 - Sound for Picture 3 credit(s)**

**TRF 659 - Documentary Production 3 credit(s)**

Education Elective - (3 credits) One course from:

**EDU 610 - The American School 3 credit(s)**

**CFE 621 - History of Education in the United States 3 credit(s)**

**CFE 640 - Inequality and Intergroup Relations in Education 3 credit(s)**

**CFE 775 - Gender, Sexuality, and Disability 3 credit(s)**

**DSP 930 - Sociology and Anthropology of Education: Seminar in Special Topics 3 credit(s)**

**IDE 651 - Message Design for Digital Media 3 credit(s)**

**IDE 652 - Assistive Technologies for Integrating Students with Special Needs 3 credit(s)**

**RED 607 - Issues in Multicultural Literacy 3 credit(s)**

**EDU 778 - Narrative Inquiry in Research and Creative Practice 3 credit(s)**

Public Communications Elective - (3 credits) One course from:

NOTE: Students are invited to petition public communications electives not on this list along with a rationale for using them in their program of study.

**COM 646 - Media and Diversity 3 credit(s)**

**COM 755 - Communications Theory 3 credit(s)**

**TRF 640 - Topics in Critical and Historical Perspectives 3 credit(s)**

**TRF 683 - Communications Industry Frontiers 3 credit(s)**

Spring Semester (13 Credits):

**CFE 662 - Youth, Schooling and Popular Culture 3 credit(s)**

**M&E 610 - Media and Education Master's Colloquium 1 credit(s)**

Spring semester colloquium focuses on the research and design of the summer capstone projects.

**M&E 611 - Proseminar in Media and Education 3 credit(s)**

Pro-seminar covers the perspectives of Media and Education professionals. Students will develop the theoretical groundwork and documentation for their capstone projects. This covers legal issues in media education including copyright issues related to use of media in schools and education law relating to media and education

Culture Study Elective - (3 credits) One course from:

**ANT 672 - Language, Culture, and Society 3 credit(s)**

**PSC 753 - International Political Economy 3 credit(s)**

**TRF 530 - Popular Culture Studies 3 credit(s)**

**WGS 652 - Feminism and Postcolonial Studies 3 credit(s)**

**SOC 880 - Seminar: Selected Areas of Social Organization and Change 3 credit(s)**

(approved sections, for example, section title: Sociology of Education)

**ANT 553 - Women and Social Change 3 credit(s)**

Visual Media Elective II - (3 credits) One course from:

For their visual media elective, students may enroll in any of the courses listed under Visual Media Elective-I listed above, or the following courses if they have the necessary prerequisite.

**TRF 600 - Selected Topics 1-6 credit(s)**  
Section title: Human-Computer Interaction

**TRF 662 - Advanced TV Production 3 credit(s)**

**TRF 668 - Advanced Audio 3 credit(s)**

**TRF 669 - Advanced Filmmaking 3 credit(s)**

Summer Session I Finish (3 Credits):

**M&E 689 - Media & Education Capstone 3 credit(s)**



## GRADUATE COURSE CATALOG

Total Credits: 36

### Transfer Credit:

Decisions made on a case-by-case basis up to a maximum of 6 credits.

### Satisfactory Progress:

3.0 (B or better) average in all program courses.

## Media Studies, MA

### Contact:

Bradley Gorham, Director of Media Studies Program  
318 Newhouse 3, 315-443-3372, masscomm@syr.edu

### Faculty:

See Faculty for the S.I. Newhouse School of Public Communications

This program emphasizes media processes and effects. Areas of inquiry include, but are not limited to, political communication, social effects, and media and diversity. This program stresses media theory and research, with students exploring a topic of their choosing in a culminating thesis. It is excellent preparation for more advanced study at the doctoral level or for research-oriented jobs in the private or public sector.

This 36-credit program leads to a Master of Arts (M.A.) in Media Studies.

### Requisite

Three credits of undergraduate or graduate coursework in media skills. Extensive professional experience can be substituted by petition.

### Required Courses

**COM 601 - Thesis Design 3 credit(s)**

**COM 605 - Quantitative Methods for Mass Communications Research 3 credit(s)**

**COM 606 - Qualitative Methods for Mass Communications Research 3 credit(s)**

**COM 698 - Media Law 3 credit(s)** or

**TRF 637 - Telecommunications Law&Policy 3 credit(s)**

**COM 701 - Proseminar for Graduate Study 0 credit(s)**

**COM 755 - Communications Theory 3 credit(s)**

### Perspectives In Communications Course (Choose Three)

**ADV 645 - The Power and Peril of Global Persuasion 3 credit(s)**

**COM 600 - Selected Topics 1-6 credit(s)**

**COM 646 - Media and Diversity 3 credit(s)**

**COM 688 - Origins of Contemporary Media Issues 3 credit(s)**

**COM 740 - Topics in Research Communication 3 credit(s)**

**COM 777 - Seminar in Media Effects 3 credit(s)**

**COM 788 - Theories of Media Content 3 credit(s)**

**ICC 617 - Issues in Media Management 3 credit(s)**

**MNO 601 - Principles: Business, History, and the Ethics of Journalism 3 credit(s)**

**TRF 592 - Film Business 3 credit(s)**

**TRF 594 - Television Business 3 credit(s)**

**TRF 595 - Programming and Audience Analysis 3 credit(s)**

**TRF 600 - Selected Topics 1-6 credit(s)**

**TRF 636 - Critical and Historical Perspectives on Television, Radio, and Film 3 credit(s)**

**TRF 683 - Communications Industry Frontiers 3 credit(s)**

### Electives 9 Credits (Choose Three)

Elective courses will be selected in consultation with the student's advisor from the broad range of graduate offerings in the Newhouse School and the University at large.

### Thesis (3 Credits)

Total: 36 credits

## New Media Management, MS

### Contact:

Stephen Masiclat, Director  
255A Newhouse 3, 315-443-9243.

### Newhouse faculty:

See faculty listings for the S.I. Newhouse School

of Public Communications.

## Management faculty:

See faculty listings under M.B.A. program in the Martin J. Whitman School of Management.

### Program Requirements

This program focuses on the management, finance, and marketing functions of the communications industry. The Master of Science degree in new media management is granted jointly by the S. I. Newhouse School of Public Communications and the Martin J. Whitman School of Management. The required number of graduate credits varies from 36 to 42, depending upon the student's prior academic background.

This 36-credit program leads to a Master of Science (M.S.) in New Media Management.

### Requirements of the Newhouse School of Public Communications

#### Required Courses

**COM 698 - Media Law 3 credit(s)** or

**TRF 637 - Telecommunications Law&Policy 3 credit(s)**

**ICC 606 - Applied Research in Content Management 3 credit(s)**

**ICC 617 - Issues in Media Management 3 credit(s)**

**ICC 625 - New Media Business 3 credit(s)**

**ICC 683 - Case Studies in Media Management 3 credit(s)** or

**TRF 683 - Communications Industry Frontiers 3 credit(s)**

#### Capstone

**ICC 689 - New Media Management Capstone 6 credit(s)**

### Requirements of the Martin J. Whitman School of Management

#### Required Courses

**EEE 643 - Emerging Enterprise Consulting 3 credit(s)** or

**MAR 745 - Strategic Brand Management 3 credit(s)**

**MBC 603 - Creating Customer Value 1.5 credit(s)**

**MBC 604 - Managing the Marketing Mix**

## GRADUATE COURSE CATALOG

1.5 credit(s)

**MBC 607 - Understanding Financial Statements 1.5 credit(s)**

**MBC 609 - Accounting for Managerial Decisions 1.5 credit(s)**

**MBC 618 - Competitive Strategy 1.5 credit(s)**

**MBC 619 - Corporate Strategy 1.5 credit(s)**

**MBC 639 - Leadership in Organizations 3 credit(s)**

### Additional Information

Students without prior background in communications must complete an additional 6 credits in Newhouse course-work chosen in conjunction with the program director.

Total: 36-42 credits

## Photography, MS

### Contact:

Bruce Strong, Chair, 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 graduate program in communications photography is for advanced students who wish further study in a specialized area. The program places strong emphasis on multimedia storytelling principles and technology. To augment the emphasis on visual communication, the program also includes communications research and/or theory for photojournalism and other communications fields, such as advertising and illustration photography.

This 30-33 credit program leads to a Master of Science (M.S.) in Photography.

### Admission

All students admitted to the program must have backgrounds in communications-style photography. A portfolio is required and should be sent separately to Professor Bruce Strong, Chair, Department of Multimedia Photography and Design, Newhouse School, 215 University Place, Syracuse NY 13244. Images should be presented on a CD/DVD in jpeg or Photoshop format at 10" x 100 dpi.

### Program Option A: Thesis

#### Required Courses

**COM 997 - Masters Thesis 1-6 credit(s)**

**GRA 617 - Visual Communications Theory and Practice 3 credit(s)**

**PHO 608 - Problems in Photography 3 credit(s)**

#### Photography (choose one)

**PHO 604 - Advertising and Illustration Photography II 3 credit(s)**

**PHO 625 - Picture and Multimedia Editing 3 credit(s)**

#### Mass Communications and Society (choose one)

**COM 605 - Quantitative Methods for Mass Communications Research 3 credit(s)**

**COM 698 - Media Law 3 credit(s)**

**COM 755 - Communications Theory 3 credit(s)**

#### Photo Electives

6 credits from graduate-level photography courses.

#### General Electives

6 credits of graduate coursework.

#### Additional Information

Students who elect to write a thesis should have an idea for a topic early in the program. The thesis may be creative, historical, scientific, or statistical in nature.

### Program Option B: Special Project

#### Required Courses

**COM 605 - Quantitative Methods for Mass Communications Research 3 credit(s)**

**COM 755 - Communications Theory 3 credit(s)**

**COM 698 - Media Law 3 credit(s)**

**GRA 617 - Visual Communications Theory and Practice 3 credit(s)**

**PHO 608 - Problems in Photography 3 credit(s)** or

**PHO 609 - Problems in Photography 3 credit(s)**

#### Photography (choose one)

**PHO 604 - Advertising and Illustration Photography II 3 credit(s)**

**PHO 625 - Picture and Multimedia Editing 3 credit(s)**

#### Photo Electives

9 credits from graduate-level photography courses

#### General Electives

9 credits of graduate coursework

#### Additional Information

In addition to the above courses, the student must submit a proposal to the faculty for a major photographic project. After approval and successful completion of this project along with the above coursework, the faculty will recommend the candidate to the Graduate School for the Master's degree.

Total: 30-33 credits

## Public Relations, MS

### Contact:

Rochelle L. Ford, Chair  
318 Newhouse 3, 315-443-9347

### Faculty

Rochelle L. Ford, Anthony D'Angelo, Guy J. Golan, William Jasso, Hua Jiang, Dennis F. Kinsey, Joon Soo Lim, Maria P. Russell

The internationally recognized public relations program at the S.I. Newhouse of Public Communications is one of the few programs in the country that offers public relations education at the undergraduate, Master's, and mid-career levels. In addition to the Master's program described below, please note that the Newhouse School offers a distance-learning Master's program in Communications Management and a joint Master's program in Public Diplomacy, resulting in degrees in Public Relations and in International Relations. Information about these programs can be found under Academic Offerings.

The 36-credit program in Public Relations is an intensive thirteen months of professional study primarily for recent college graduates seeking entry into the field of public relations. The program also enrolls public relations practitioners with fewer than five years of experience who are seeking to renew and refine their skills. In either case, Master's degree students have the opportunity to explore in depth both the

## GRADUATE COURSE CATALOG

theoretical underpinnings of the profession and to apply best practices. The program is distinguished by its many fine alumni both nationally and abroad, working and teaching in the full spectrum of public relations specialties.

Students choose between two tracks: one that leads to a career in the practice of public relations, the other to advanced study in preparation for a teaching and/or research career. The professional track is completed by a capstone examination and internship. The thesis track is completed by a thesis.

This 36-credit program leads to a Master of Science (M.S.) in Public Relations.

### Professional Track

#### Requirements

**COM 698 - Media Law 3 credit(s)**

**GRA 617 - Visual Communications Theory and Practice 3 credit(s)**

**MBC 607 - Understanding Financial Statements 1.5 credit(s)**

**MBC 627 - Financial Markets and Institutions 1.5 credit(s)**

**PRL 525 - Public Relations Practicum 3 credit(s)**

**PRL 604 - Writing for News and Public Relations 3 credit(s)**

**PRL 605 - Public Relations Theory 3 credit(s)**

**PRL 611 - Public Relations Research 3 credit(s)**

**PRL 614 - Advanced Public Relations Writing for Digital Platforms 3 credit(s)**

**PRL 615 - Public Relations Campaign Planning & Execution 3 credit(s)**

**PRL 635 - Public Relations Culminating Experience 3 credit(s)**

**PRL 725 - Public Relations Management 3 credit(s)**

#### Additional Information

Comprehensive exam required for students on the professional track.

#### Maymester Required Elective (3 Credits)

Elective course will be selected in consultation with the student's adviser from the graduate offerings in the Newhouse School and the University at large during Maymester.

Professional track total: 36 credits

### Thesis Track

#### Requirements

**COM 698 - Media Law 3 credit(s)**

**GRA 617 - Visual Communications Theory and Practice 3 credit(s)**

**PRL 604 - Writing for News and Public Relations 3 credit(s)**

**PRL 605 - Public Relations Theory 3 credit(s)**

**PRL 611 - Public Relations Research 3 credit(s)**

**PRL 614 - Advanced Public Relations Writing for Digital Platforms 3 credit(s)**

**PRL 615 - Public Relations Campaign Planning & Execution 3 credit(s)**

**PRL 725 - Public Relations Management 3 credit(s)**

#### Additional Information

Two required research and theory electives chosen with adviser (6 credits)

#### Thesis:

**COM 997 - Masters Thesis 1-6 credit(s)**

Thesis track total: 36 credits

## Television, Radio and Film, MA

### Contact:

Michael Schoonmaker, Chair  
318 Newhouse 3, 315-443-4004

### 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

Established in 1950, the Television, Radio and Film Master's program was the first of its kind in the nation and continues to be seen as the leader in graduate education for the field. This one-year, intensive, graduate program is designed for those who want to tell stories for screens of all sizes, examining various forms of entertainment

media through the lenses of storytelling, industry, technology and art form.

Every day we experience these entertainment media as commercials on television, our favorite films at the multiplex, games on our iPhones and videos on the Internet. Students in the Television-Radio-Film Department have the opportunity to explore the ways stories are currently told, but also how they might be told decades from now as new technologies develop and the world shrinks.

Major themes in coursework include: production, screenwriting, criticism, business management and trends, the creative process and entrepreneurial strategies in dynamic media environments. The department's approach to story is framed within film, television, Internet, interactivity and audio. You will create, analyze and explore. You may choose to learn screenwriting, to produce a documentary, to create a web-based public service campaign--and then research your audience and market your creation. Your one year as a student in this program will be multidimensional in terms of its practical, theoretical, forward-thinking, creative, industry-centered and intellectual layers.

This multidimensional approach is most visible in the Proseminar Industry Series (spanning across the year of study) designed to bring together TRF studies and professional practices. The object of the Proseminar experience is to prepare students to engage in current TRF issues and practices, help them understand changes in media environments and enable them to respond to future challenges as skilled creators and decision-makers.

The TRF Master's prepares future leaders in enterprises where stories for screens entertain and persuade audiences: as writers, directors, editors, producers, media executives, multimedia designers, managers, entertainment lawyers, and agents. Some graduates run their own businesses, while others work for organizations like PBS, Comcast-NBC Universal, Google, MTV, Discovery Networks, Time Warner, Disney, Nickelodeon, CAA and hundreds of others.

This 36-credit program leads to a Master's of Art (M.A.) in Television, Radio and Film.

#### Requirements (19-21 Credits)

**TRF 610 - Proseminar in Television, Radio, and Film 1 credit(s)** (Phase I, II, and III--1 credit each)

Note: Proseminar includes an optional industry-immersion trip to New York City or Los Angeles during winter break.

**TRF 635 - Industry Forces 3 credit(s)**

**TRF 636 - Critical and Historical Perspectives on Television, Radio, and**

## GRADUATE COURSE CATALOG

### Film 3 credit(s)

**TRF 637 - Telecommunications Law&Policy 3 credit(s)**

**TRF 655 - Screenwriting and Production Workshop 3 credit(s)**

**TRF 675 - Entertainment Industry Practicum 1-3 credit(s)**

**TRF 696 - Research for Entertainment Media 3 credit(s)**

### TRF Electives (15-17 Credits)

TRF Master's students tailor their individual programs to fit their unique learning goals with specialized coursework from a list of more than 65 courses. Among those are the following:

**TRF 510 - Specialized Practice 1 credit(s)**

**TRF 530 - Popular Culture Studies 3 credit(s)**

**TRF 560 - Topics in International Perspectives 3 credit(s)**

**TRF 592 - Film Business 3 credit(s)**

**TRF 594 - Television Business 3 credit(s)**

**TRF 595 - Programming and Audience Analysis 3 credit(s)**

**TRF 600 - Selected Topics 1-6 credit(s) - Animation and Visual Effects: 2D**

TRF 600 - Selected Topics 1-6 credit(s) - Animation and Visual Effects: 3D

TRF 600 - Selected Topics 1-6 credit(s) - Human-Computer Interaction

TRF 600 - Selected Topics 1-6 credit(s) - Directing

TRF 600 - Selected Topics 1-6 credit(s) - Producing Workshop

TRF 600 - Selected Topics 1-6 credit(s) - Sports Production

TRF 600 - Selected Topics 1-6 credit(s) - Working with Actors

TRF 600 - Selected Topics 1-6 credit(s) - Production Management

TRF 600 - Selected Topics 1-6 credit(s) - Dramatic Series

TRF 600 - Selected Topics 1-6 credit(s) - Gaming Narratives

**TRF 611 - Dramatic Writing for Television and Film 3 credit(s)**

**TRF 621 - Feature Film Writing 3 credit(s)**

**TRF 622 - Comedy Writing 3 credit(s)**

**TRF 624 - Script Development 3 credit(s)**

**TRF 640 - Topics in Critical and Historical**

### Perspectives 3 credit(s)

**TRF 642 - Television Production Workshop 3 credit(s)**

**TRF 648 - Producing Radio: On Air to Online 3 credit(s)**

**TRF 651 - Filmmaking 3 credit(s)**

**TRF 653 - Short-form Production 3 credit(s)**

**TRF 654 - Music Recording 3 credit(s)**

**TRF 656 - Sound for Picture 3 credit(s)**

**TRF 657 - Music Underscore 3 credit(s)**

**TRF 659 - Documentary Production 3 credit(s)**

**TRF 661 - Advanced Management Seminar 3 credit(s)**

**TRF 662 - Advanced TV Production 3 credit(s)**

**TRF 667 - Screenwriting Master Class 3 credit(s)**

**TRF 668 - Advanced Audio 3 credit(s)**

**TRF 669 - Advanced Filmmaking 3 credit(s)**

**TRF 683 - Communications Industry Frontiers 3 credit(s)**

Students may also petition courses from other Newhouse or University programs to count as electives in their program of study.

### Additional Requirements

At least 18 credits of the program's total 36 credits of coursework must be 600-level or above. Students must pass a comprehensive examination which they are eligible to take upon completion of 30 credits.

Total: 36 credits

### Doctorate

## Mass Communications, PhD

### Contact:

Dennis Kinsey, Director of Doctoral Studies  
454 Newhouse 3, 315-443-3372, masscomm@syr.edu

### Faculty:

See Faculty listing for the S.I. Newhouse School of Public Communications

The Ph.D. in mass communications in the S.I. Newhouse School of Public Communications is rooted in the social and behavioral sciences and is an interdisciplinary degree, with doctoral students taking classes outside the Newhouse School and developing at least one outside area of expertise. Students may draw on an extensive variety of faculty in other schools at Syracuse University.

Students can specialize in the functions and social effects of print and electronic media or focus on media-related institutions in society. Among the topics they might consider are: influences on media content, media influence on social behavior, new communications technologies, advertising influences on consumer behavior, public relations, media law and ethics, diversity and the media, science communication, and political communication.

Coursework includes four areas of study: mass communication theory, research methods and statistics, courses related to the dissertation, and a substantive area outside the Newhouse School (e.g., sociology, psychology, political science, information studies).

Doctoral students complete at least 90 semester credits beyond the bachelor's degree. Of the 90 credits, 18 credits count toward the dissertation. Of the 90 credits, at least 36 classroom credits must be earned in residence at Syracuse University. Doctoral students entering the program with master's degrees should be able to complete the program in three years.

### Admission

Applicants with master's degrees will be given preference for admission to the Ph.D. program.

### Required Areas of Study

#### Proseminar

**COM 701 - Proseminar for Graduate Study 0 credit(s)**

Mass Communication Theory at least 15 credits, including:

**COM 755 - Communications Theory 3 credit(s)**

**TRF 698 - Social Effects of Television 3 credit(s)**

**COM 788 - Theories of Media Content 3 credit(s)**

Research Methods and Statistics at least 15 credits, including:

**COM 605 - Quantitative Methods for Mass**

## GRADUATE COURSE CATALOG

### **Communications Research 3 credit(s)**

two statistics courses

Two of the following courses:

### **COM 700 - Selected Topics 1-6 credit(s)**

Advanced Research Methods-Experimental Design

COM 700 - Selected Topics 1-6 credit(s)

Advanced Research Methods-Qualitative Research

### **COM 806 - Advanced Survey Research Methods 3 credit(s)**

### **COM 807 - Content Analysis Research Methods 3 credit(s)**

### **Concentration #1**

At least 15 credits of coursework in an academic area outside the Newhouse School.

### **Concentration #2**

At least 15 credits of coursework in an area of interest to support the dissertation topic.

Dissertation (usually 18 credits).

### **Combined Degree**

## **Law and Arts Journalism, JD/MA**

### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

## **Law/Advertising, JD/MA**

### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

## **Law/Documentary Film & History, JD/MA**

### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

## **Law/Magazine, Newspaper & Online Journalism, JD/MA**

### **Degree Requirements:**

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A., as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@

## GRADUATE COURSE CATALOG

law.syr.edu).

### Law/Media Management, JD/MS

#### Degree Requirements:

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A. as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

### Law/Media Studies, JD/MA

#### Degree Requirements:

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A. as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

### Law/Photography, JD/MS

#### Degree Requirements:

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A. as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

### Law/Public Relations, JD/MS

#### Degree Requirements:

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A. as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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 should 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 Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, cabboth@law.syr.edu).

### Law/Television, Radio & Film, JD/MA

#### Degree Requirements:

The Juris Doctor/Master of Science or Master of Arts in communications are combined degrees which may be conferred by the S.I. Newhouse School of Public Communications and the College of Law. A student who is admitted to one of these programs has the opportunity to earn both the J.D. degree and the M.S. or M.A. as appropriate, in a variety of communications fields 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, journalism, and a variety of entertainment industries. 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.

## GRADUATE COURSE CATALOG

Questions and inquiries should be directed to the Graduate Records Office, S.I. Newhouse School of Public Communications, 330 Newhouse 2 (315-443- 4039; [pcgrad@syr.edu](mailto:pcgrad@syr.edu)) or visit [newhousemasters.syr.edu](http://newhousemasters.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, [cabbotth@law.syr.edu](mailto:cabbotth@law.syr.edu)).

### Public Diplomacy, MS/MA

#### Contact:

Dennis F. Kinsey, Director  
452 Newhouse 3, 315-443-3801  
<http://publicdiplomacy.syr.edu/>

#### Faculty

See faculty listing under Public Administration and International Affairs in the Maxwell School of Citizenship and Public Affairs and under Public Relations in the S.I. Newhouse School of Public Communications.

The Maxwell School of Citizenship and Public Affairs and the S.I. Newhouse School of Public Communications offer a multidisciplinary graduate program leading to the Master of Arts (M.A.) degree in International Relations and the Master of Science (M.S.) degree in Public Relations. This dual-degree program is offered jointly by the Maxwell School's Department of Public Administration and International Affairs and the Newhouse School's Department of Public Relations. It is designed to train professionals to assume public communications responsibilities for governments, non-governmental organizations, and the private sector.

#### Program Requirements

Successful completion requires 58 credits of coursework. The program begins in early July with a summer-long gateway seminar, introducing students to the fields of public diplomacy, public communications, and their cross-disciplinary synthesis. During the fall and spring semesters, students take courses at the Maxwell and Newhouse Schools. The following summer, students complete an off-campus experience at one of several locations around the world. Students resume coursework in the second fall semester and finish the program that spring in Washington, D.C., where they complete a required internship and attend two special seminars addressing issues in public diplomacy and public communication at the Maxwell School's home in Washington, DC, the Center for Strategic and International Studies. Exit requirements include

demonstrating proficiency in a foreign language.

#### Required courses at the S.I. Newhouse School of Public Communications

##### Communications

**COM 698 - Media Law 3 credit(s)**

##### Graphic Design

**GRA 617 - Visual Communications Theory and Practice 3 credit(s)**

##### Public Relations

**PRL 602 - Introduction to Public Diplomacy and Communications 3 credit(s)**

**PRL 605 - Public Relations Theory 3 credit(s)**

**PRL 607 - Advanced Public Diplomacy 3 credit(s)**

**PRL 608 - Public Relations Writing 3 credit(s)**

**PRL 611 - Public Relations Research 3 credit(s)**

**PRL 615 - Public Relations Campaign Planning & Execution 3 credit(s)**

**PRL 725 - Public Relations Management 3 credit(s)**

**PRL 735 - Public Relations Practicum 3 credit(s)**

#### Required Courses at the Maxwell School of Citizenship and Public Affairs

##### Public Administration and International Affairs

**PAI 704 - Quantitative Skills in International Relations 3 credit(s)**

**PAI 706 - International Relations Capstone Seminar 1 credit(s)**

**PAI 708 - Issues for 21st Century Public Diplomacy 3 credit(s)**

**PAI 709 - Research Consultancy in Public Diplomacy 3 credit(s)**

**PAI 710 - International Actors and Issues 3 credit(s)**

**PAI 720 - Principles of Economics 3 credit(s)**

#### Other Required Courses:

Summer off-campus internship program (and career track course) 6 credits

Career Track Course 3 credits

International Relations Signature Course; Choose One:

**ANT 707 - Culture in World Affairs 3 credit(s)** or

**PAI 707 - Culture in World Affairs 3 credit(s)** or

**MES 707 - Culture in World Affairs 3 credit(s)**

**ECN 610 - Special Topics in Economics 3 credit(s)** Economic Dimensions of Global Power or

**PAI 716 - Economic Dimensions of Global Power 3 credit(s)**

**GEO 606 - Development and Sustainability 3 credit(s)**

**HST 645 - History of International Relations 3 credit(s)**

**PSC 783 - Comparative Foreign Policy 3 credit(s)**

Total: 58 credits

#### Certificate of Advanced Study

### Media & Education, CAS

#### Contact information for the CAS program:

Dr. Barbara Applebaum Co-director, M&E; Chair, CFE, [bappleba@syr.edu](mailto:bappleba@syr.edu), 315-443-3343.

Michael Schoonmaker, Co-director, M&E; Chair, TRF, [msschoon@syr.edu](mailto:msschoon@syr.edu).

Administrative assistant for program, Maryann Barker, [mabarker@syr.edu](mailto:mabarker@syr.edu), 315-443-3343.

#### Description

This program brings together the fields of media and education, and is offered jointly by the School of Education and the S.I. Newhouse School of Public Communications. Using broad definitions, we see media as an umbrella term for a range of forms that communicate to a public and we define education as occurring in both formal

# GRADUATE COURSE CATALOG

settings like schools and informal arenas like popular culture. This program addresses media production and analysis in relation to visual storytelling, combining an analysis of core issues in education with visual storytelling creation and production skills. The program also speaks to the cultural terrain of how people both make and make sense of media.

## Certificate Requirements

The CAS program is designed for educators who want to learn more about public media-video, film, television, radio, music recording and incarnations of these forms on the web-both how to make media in order to tell stories (or to help their students tell stories) and how to analyze them to incorporate into their pedagogy. Students in the program will learn to increase their visual storytelling skills in order to make films about or help students document their lives and the issues they care about. Because assumptions about education, identity and difference are always visible in the documentary process, the program will also work with students on the assumptions they bring to filmmaking.

## Admission:

The CAS program follows Syracuse University's general guidelines for admission of graduate study. That is, applicants must present respectable evidence of excellence with depth and dimension in their records. The review committee expects to admit students with an exemplary transcript, extraordinary letters of recommendation, a personal statement that reflects potential growth, and a demonstrated experience in education and/or media studies. Also, we will use the "Like-Live" interface to collect unrehearsed video responses to questions about goals and qualifications in relation to media and education.

## Required Courses

**TRF 606 - Visual Storytelling for Education**  
3 credit(s)

**CFE 662 - Youth, Schooling and Popular Culture** 3 credit(s)

**M&E 601 - Media and Education CAS Colloquium** 1 credit(s)

**M&E 621 - Media and Education Practicum: Project Development** 3 credit(s)

**M&E 622 - Media and Education Practicum: Production** 3 credit(s)

**M&E 650 - Special Projects Seminar** 2 credit(s)

## Certificate Awarded:

Certificate of Advanced Study in Media & Education

Total Credits: 15

## Transfer Credit:

Transfer credit will be considered on a case-by-case basis, up to a maximum of 3 credits.

## Part-time Study:

This program requires part time study. Three weeks of the program take place on campus, with course assignments for the on-campus courses, and the required project completed by the student at home. Their project work will consist of applications of concepts from studies in the program to educational objectives in learning environments they work in, i.e. making an educational video, integrating media into classroom pedagogy and documenting it, or documenting an educational problem through visual media in conjunction with students.

## Satisfactory Progress:

3.0 (B or better) average in all courses.

## Advertising

### ADV 500 - Selected Topics

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### ADV 507 - Strategic Media Planning

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
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

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
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

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
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

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
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.

### ADV 600 - Selected Topics

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### ADV 601 - Introduction to Copy and Layout

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Students will be exposed to the entire creative process of writing and designing ads in order to develop their ability to judge, as future advertising managers, what comprises a strong ad campaign.  
PREREQ: ADV 604, GRA 617

### ADV 604 - Seminar in Advertising Practice and Leadership

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Examination of advertising with the modern business structure; corporation; agency and media relationships; analysis of creative, research, and planning aspects. Limited to graduate students who have had no general course in advertising.  
PREREQ: ADV 611

### ADV 607 - Writing for the Advertising Profession

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
The fundamentals of researching and developing advertising strategies for campaigns. Students will gain proficiency in professional and creative/



## GRADUATE COURSE CATALOG

persuasive writing used in internal and external communications by advertising managers. Advertising graduate students only.

### **ADV 609 - Advertising and Public Relations Research Design**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester

Crosslisted with: PRL 609

The theory and application of research methods to solve advertising and public relations communication problems.

### **ADV 610 - Topics in Specialized Practice**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester

Development of specific skills needed to work in the advertising business (agency, media seller or client side). Topics vary dependent on changes in the industry.

Repeatable 2 time(s), 9 credits maximum

### **ADV 611 - Strategic Principles and Practices**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Only during the summer

The fundamentals of strategic planning as practiced in advertising including problem assessment, competitive analysis, target market profile, brand positioning, opportunity recognition, creative platform, and creative executions.

### **ADV 612 - Strategic Brain: Account Planning and Research**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Study the strategic findings of consumer research attuned to the emotions and thoughts of target audiences. Most importantly, students explore how to obtain key kernels of knowledge and emotion that will make advertising campaigns successful.

PREREQ: ADV 611

### **ADV 613 - Strategic Brain: Media Planning**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Learn how to create media plans including both traditional and digital advertising media vehicles. It's a strategic and creative part of the entire brand-communications program that provides solutions on costs, coverage, effectiveness, and scheduling.

PREREQ: ADV 611

### **ADV 615 - Creative Brain**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Gain a thorough understanding of how advertising ideas are developed and spread across a variety of media choices. Learn to build a bridge across the historic divide that separates account managers from their creative colleagues.

PREREQ: ADV 604 AND GRA 617

### **ADV 625 - Integrated Advertising Campaigns**

#### ***S.I. Newhouse School of Public Communications***

6 credit(s) Only during the summer

Apply the skills learned from the graduate course work and develop integrated advertising campaigns for real clients. Move from a thorough understanding of advertising to becoming an active practitioner of the craft, intensive and hands-on experience.

PREREQ: ADV 604

### **ADV 645 - The Power and Peril of Global Persuasion**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Double Numbered with: ADV 345

A critical examination of the ethical challenges confronting advertisers in the global marketplace. Discussion and debate concerning advertising's potential to both enlighten and distort in a digital world. Additional work required of graduate students.

## **Arts Journalism**

### **AJP 601 - Issues for Arts Journalists**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Irregularly

The arts and popular culture in the mass media, the economics and economic impact of the arts, legal issues, how nonprofit organizations function, and current aesthetic trends. The presentation and reception of various arts in contemporary society.

### **AJP 602 - Arts Reporting**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Only during the summer

Research skills, assessment of information, interviewing, economics of nonprofits, interpreting data. Issues such as copyright, public art policy, the arts and urban redevelopment. Introduction to local culture scene.

### **AJP 606 - Feature and Critical Writing**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Writing intensive with focus on news judgment, story-telling and fluency in forms of arts journalism. Professional publication expected. Encompassing all forms of culture.

PREREQ: AJP 602

### **AJP 611 - Literature of Arts Journalism**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Reading, analyzing and discussing examples of arts journalism. Includes architecture, film, music, theater, pop culture, TV, visual arts, and more.

Emphasis on contemporary forms.

### **AJP 615 - Cultural Issues I**

#### ***S.I. Newhouse School of Public Communications***

1 credit(s) At least 1x fall or spring

Readings and discussions of news and current issues in the arts. Cross-discipline presentations by scholars and artists. Skill seminars in online writing and branding.

### **AJP 616 - Cultural Issues II**

#### ***S.I. Newhouse School of Public Communications***

1 credit(s) At least 1x fall or spring

Readings and discussions of news and current issues in the arts. Cross-discipline presentations by scholars and artists. Skill seminars in preparing story pitches and working with editors.

PREREQ: AJP 615

### **AJP 621 - Practicum: NYC Arts**

#### ***S.I. Newhouse School of Public Communications***

1 credit(s) At least 1x fall or spring

Immersion trip to New York City includes performing arts events, visits to museums and galleries, meetings with media and arts professionals. Workshop with arts editors; writing arts reviews, and online blogging with multi-media work

### **AJP 631 - Capstone Arts Writing Workshop**

#### ***S.I. Newhouse School of Public Communications***

6 credit(s) Only during the summer

Capstone experience for graduate Arts Journalism majors. Students will research, write, and revise substantive works of arts journalism in workshop environment.

PREREQ: AJP 601, AJP 611, AJP 621

### **AJP 636 - Cultural Media Practicum**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Required to support and provide learning context for internship at media or nonprofit arts institution. Professional ethics and workplace protocols. Career development.

Repeatable 1 time(s), 6 credits maximum

## **Broadcast and Digital Journalism**

## GRADUATE COURSE CATALOG

### **BDJ 500 - Selected Topics**

#### ***S.I. Newhouse School of Public Communications***

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **BDJ 510 - Topics in Specialized Practices**

#### ***S.I. Newhouse School of Public Communications***

1 credit(s) At least 1x fall or spring  
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  
Repeatable 2 time(s), 3 credits maximum

### **BDJ 530 - Topics in Specialized Reporting II**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring  
Event and issue-oriented reporting. Each section focuses on a content area such as politics, consumerism, or the environment.  
PREREQ: BDJ 364 OR BDJ 464 OR BDJ 663 OR BDJ 664  
Repeatable 1 time(s), 6 credits maximum

### **BDJ 560 - Television News Magazine Production**

#### ***S.I. Newhouse School of Public Communications***

1 credit(s) Irregularly  
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.  
Repeatable 2 time(s), 3 credits maximum

### **BDJ 566 - Special News Coverage**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Irregularly  
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**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring  
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

### **BDJ 600 - Selected Topics**

#### ***S.I. Newhouse School of Public Communications***

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **BDJ 611 - Writing for Broadcast and Digital News**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Only during the summer  
Basic techniques of writing broadcast and digital news stories. Emphasis on learning to write radio, web and television stories under deadline pressure. Interviewing and information gathering are also studied.  
COREQ: BDJ 663

### **BDJ 636 - Critical and Historical Perspectives on Broadcast Journalism**

#### ***S.I. Newhouse School of Public Communications***

2 credit(s) At least 1x fall or spring  
History, economics, and traditions of broadcast journalism with particular emphasis on contemporary ethical challenges. Must be enrolled in the BDJ master's program.

### **BDJ 663 - News Reporting I**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Only during the summer  
News reporting, writing for broadcast and web, and newscast production using audio as the principal technology. Students cover real news stories on deadline, using state-of-the-art digital audio editing equipment.  
COREQ: BDJ 611

### **BDJ 664 - News Reporting II**

#### ***S.I. Newhouse School of Public Communications***

4 credit(s) At least 1x fall or spring  
Gathering and reporting news on deadline using electronic means. Involves shooting video, video editing, reporting, and writing for broadcast and Web. Taped and live performance are both emphasized.  
PREREQ: BDJ 663

### **BDJ 665 - News Producing & Presenting**

#### ***S.I. Newhouse School of Public Communications***

6 credit(s) Only during the summer  
Students produce television newscasts and file stories to a website. Students rotate in positions including producers (newscast and web), writers, editors, anchors, sports, and weather. The newscasts are delivered on a professional news

set.

PREREQ: BDJ 667

### **BDJ 667 - News Reporting III**

#### ***S.I. Newhouse School of Public Communications***

4 credit(s) At least 1x fall or spring  
Planning and production of longer news-related program segments of professional quality. Writing, research, and execution of mini-documentaries, enterprise reports and multi-media web stories.  
PREREQ: BDJ 664

### **BDJ 668 - Newsroom Operations**

#### ***S.I. Newhouse School of Public Communications***

2 credit(s) Irregularly  
How newsrooms cover and present daily news. Technical and editorial issues facing reporters, producers, and managers, featuring broadcast industry guest speakers and internships at television stations across upstate New York.  
PREREQ: BDJ 663

### **BDJ 675 - Washington Professional Experience**

#### ***S.I. Newhouse School of Public Communications***

4 credit(s) Only during the summer  
The D.C. experience is a capstone course for Broadcast and Digital Journalism graduate students. Its key elements are a substantive internship in the D.C. area and seminars with top journalists and high-level government officials.  
PREREQ: BDJ 665

## **Communications**

### **COM 500 - Selected Topics**

#### ***S.I. Newhouse School of Public Communications***

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **COM 505 - Communications Law for Journalists**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester  
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**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester  
Survey of communications law emphasizing First Amendment and regulatory law as they pertain to

## GRADUATE COURSE CATALOG

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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Print and electronic media in the United States in the context of social and political developments in the 20th century.

### **COM 527 - International Communications**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
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.

### **COM 600 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **COM 601 - Thesis Design**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Only during the summer  
All aspects of designing master's thesis research. Students write proposals that include introductory, literature review, and methodology chapters. Practical matters associated with successful completion of a thesis. Minimum of 18 credits completed in the Media Studies program.

### **COM 605 - Quantitative Methods for Mass Communications Research**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Philosophical and practical implications of quantitative research. Application of survey research, experiments and content analysis to mass communications research. Statistical analysis and use of statistical software. Students conduct primary research.

### **COM 606 - Qualitative Methods for Mass Communications Research**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Philosophical and practical implications of qualitative research. Application of textual analysis, in-depth interviews, and focus groups to mass communications research. Analysis of qualitative data and writing of research results. Students conduct primary research.

### **COM 617 - Multimedia Storytelling**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
Students write and produce short fiction and non-fiction video stories using digital media. Emphasis on storytelling and story structures. Projects will be incorporated into websites and promoted with social media.

### **COM 627 - Social Media for Communicators**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
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 637 - Historical Methods in Mass Media**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Seminar in media problems explored via qualitative-historiographic research techniques. For students writing theses, planning for research and teaching, or planning specialized careers in investigative reporting.

### **COM 646 - Media and Diversity**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Analysis of contemporary media processes as they relate to race, ethnicity, class, gender, and sexual orientation.

### **COM 647 - Applied Media Research**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Application of communications research techniques to specific problems of broadcasting, advertising, newspapers, magazines, and public relations. Individual and group projects.

### **COM 660 - Readings/Mass Communications**

**S.I. Newhouse School of Public Communications**  
1-3 credit(s) Upon sufficient interest  
Reading course for master's candidates. Close supervision by instructor. Covering examination and grade required. Assigned readings. Repeatable 5 time(s), 6 credits maximum

### **COM 670 - Experience Credit**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Every semester  
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. Repeatable

### **COM 688 - Origins of Contemporary Media Issues**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Historic origins and development of current issues in mass communications, involving the structure and function of the media.

### **COM 690 - Independent Study**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Upon sufficient interest  
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. Repeatable

### **COM 698 - Media Law**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
Problems in media law, including libel, privacy, fair trial/free press, obscenity.

### **COM 700 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **COM 701 - Proseminar for Graduate Study**

**S.I. Newhouse School of Public Communications**  
0 credit(s) At least 1x fall or spring  
Required for all first-year Ph.D. and media studies master's students. Topics to include academic integrity, research resources, faculty research. Specific focus to vary annually.

## GRADUATE COURSE CATALOG

### COM 740 - Topics in Research Communication

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly

Problems that grow out of experiences of professional workers in communications, or problems that will prepare students for work in highly specialized fields. Particularly for students who have had NEW 615.

Repeatable 1 time(s), 6 credits maximum

### COM 746 - Techniques of Communications Research

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly

Concepts and techniques of communications research. How the techniques developed and how they have been applied. Newspaper, magazine, and public relations fields.

### COM 755 - Communications Theory

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring

Application of information theory to mass communications problems. Nature of the communications process in groups and between mass media and audiences. Contribution of theoretical concepts to solving specific problems.

### COM 777 - Seminar in Media Effects

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly

Course examines research and theory on media effects as well as problems associated with conducting effects research. Focus is primarily on social scientific approaches to media effects. Students are expected to conduct original research.

### COM 788 - Theories of Media Content

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly

Influences on media content over five levels of analysis: individual, media routines, organizational, social institutions, and social systems. Seminar participants are responsible for leading discussions and writing a theoretical paper.

### COM 800 - Selected Topics

#### *S.I. Newhouse School of Public Communications*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### COM 806 - Advanced Survey Research Methods

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly

Seminar provides hands-on experience with a telephone survey and discussion of other survey methods. Students design their research studies, using data collected from the common survey, and write quantitative research papers.

### COM 807 - Content Analysis Research Methods

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Odd academic yr e.g. 2007-8

Quantitative content analysis designs and methods. Students are required to propose and complete a quantitative research paper. Students are encouraged to submit their papers to academic conferences.

### COM 990 - Readings: Doctorate

#### *S.I. Newhouse School of Public Communications*

1-6 credit(s) Upon sufficient interest

Undifferentiated program for individualized study for students working for doctorate.

Repeatable 1 time(s), 12 credits maximum

### COM 997 - Masters Thesis

#### *S.I. Newhouse School of Public Communications*

1-6 credit(s) Every semester

Repeatable

### COM 999 - Dissertation

#### *S.I. Newhouse School of Public Communications*

1-18 credit(s) Every semester

Repeatable 17 time(s), 18 credits maximum

## Documentary Film and History

### DFH 600 - Selected Topics in Documentary Film and History

#### *S.I. Newhouse School of Public Communications*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### DFH 610 - Documentary Production Research

#### *S.I. Newhouse School of Public Communications*

1 credit(s) Every semester

Analyzes the unique collaborative nature of the documentary through screenings of important work in the genre, readings and lectures by visiting professionals. Students design research strategies and write proposals for a Documentary Film and History thesis.

Repeatable 2 time(s), 3 credits maximum

### DFH 693 - Oral History Workshop

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring

Crosslisted with: HST 693

Examines the practice of oral history from methodological and theoretical levels, the differences between individual and collective memories, and its application to analysis of events, ethical dimensions, and technological tools.

### DFH 695 - Historical Narratives and Interpretation

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring

Crosslisted with: HST 695

Comparison and exploration of the documentary and the written word as alternative formats for presenting history. Documentaries and historical writings are examined and discussed using case studies.

## Graphic Design

### GRA 540 - Advanced Design and Production

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring

Students work out plans, specifications, and details of design, layout, illustration, production. Classic and contemporary styles; functional design.

PREREQ: GRA 217 OR GRA 617

Repeatable 1 time(s), 6 credits maximum

### GRA 547 - Magazine Design and Production

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly

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 GRA 617

### GRA 550 - Workshop in Typography

#### *S.I. Newhouse School of Public Communications*

1-3 credit(s) Irregularly

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 GRA 617

### GRA 557 - Information Graphics

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly

## GRADUATE COURSE CATALOG

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 GRA 617

### **GRA 567 - Advertising Production**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
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 GRA 617

### **GRA 587 - News Design**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Principles of typography, image editing, and design using computer pagination to solve problems in newspaper, magazine layout.  
PREREQ: GRA 217 OR GRA 617

### **GRA 617 - Visual Communications Theory and Practice**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Only during the summer  
Visual problem-solving including conceptualization, typography, design, image editing, and production of printed communications. Applies current practices and digital equipment to implement visual theories and principles. Concurrent lab required.

### **GRA 637 - Typographic Design**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Double Numbered with: GRA 437  
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.

### **GRA 647 - Motion Graphics and User Experience**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Double Numbered with: GRA 447  
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 677 - Graphic Design Problems**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Double Numbered with: GRA 477  
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 637 OR GRA 647

## **Interactive Communications Core**

### **ICC 500 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **ICC 505 - Web Journalism and Innovation**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
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 BDJ 664 OR MNO 617

### **ICC 523 - Digital Branding and Strategy**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
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

### **ICC 600 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### **ICC 601 - Technology of the New Media**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Introduction to the digital technology used to produce computer-based interactive multimedia CD-ROMs and web sites. Basic manipulation of digital still images, motion video, sound, and graphics.

### **ICC 602 - Introduction to Digital Communications**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
This course will examine the evolving nature of digital communications as it relates to the media. Students will evaluate the use and impact on the creation, dissemination and consumption of news and information.

### **ICC 605 - Writing for New Media**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Introduction to conceptualizing, planning, and writing interactive multimedia applications. Students learn and apply theories of interactive design for planning creative and technical documents and study the development process for client-driven CD-ROM and web projects.

### **ICC 606 - Applied Research in Content Management**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: ICC 306  
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.

## GRADUATE COURSE CATALOG

### ICC 612 - Digital Communications Systems

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Every semester  
Introduction to the strategic digital communications systems that allow communications professionals to select audiences, deliver appropriate content over various channels, and capture data to better understand end users.

### ICC 617 - Issues in Media Management

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Only during the summer  
Intensive reading course where students explore key economic, legal and technological forces changing media businesses.

### ICC 622 - Digital Communications Strategy and Entrepreneurship

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Every semester  
Students will complete a project plan demonstrating mastery of the concepts and practices from their previous coursework, and integrating these into a comprehensive solution for a complex and large-scale digital media communications problem.

### ICC 625 - New Media Business

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring  
The forces and drivers that shape the corporate structures, strategies, products, services, costs, and revenue in offline and networked New Media. Students apply traditional and evolving business principles to develop entrepreneurial new media business plans.  
PREREQ: ICC 601, ICC 605

### ICC 632 - Media Industry Leadership and Change

#### *S.I. Newhouse School of Public Communications*

1.5 credit(s) Every semester  
Each immersion focuses on a topic that is relevant to its location and to the mass media and communications industries. Guest speakers and presenters will include leaders from top communications organizations and new media startups worldwide.  
Repeatable 1 time(s), 3 credits maximum

### ICC 635 - New Media Culminating Experience

#### *S.I. Newhouse School of Public Communications*

6 credit(s) Irregularly  
Students work full-time in a professional setting, with online discussions, assigned readings and

a final project. Student must have completed 30 hours toward New Media Master's degree.

### ICC 683 - Case Studies in Media Management

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring  
Students conduct advanced business analysis and consulting for various media companies.  
Emphasis on NYC media companies.  
PREREQ: ICC 606 AND ICC 625

### ICC 689 - New Media Management Capstone

#### *S.I. Newhouse School of Public Communications*

6 credit(s) Only during the summer  
Culminating experience for students in New Media Management Program. Students will deepen their knowledge of concepts studied and skills developed during previous year. In this capstone, students participate in a management project at a media business.

### ICC 695 - Proseminar on New Media

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly  
The perspectives of new media professionals and the industries in which they work. Students will develop the theoretical groundwork and documentation for their capstone projects.  
PREREQ: ICC 625

### ICC 696 - New Media Capstone Workshop

#### *S.I. Newhouse School of Public Communications*

6 credit(s) Irregularly  
The capstone project demonstrates the student's ability to conceptualize and produce a new media project that delivers content interactively to an audience.  
PREREQ: ICC 695

## Magazine

### MAG 500 - Selected Topics

#### *S.I. Newhouse School of Public Communications*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### MAG 518 - Critical Writing

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring  
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

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Irregularly  
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

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring  
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

## Magazine, Newspaper, and Online Journalism

### MNO 600 - Selected Topics: Magazine, Newspaper, and Online Journalism

#### *S.I. Newhouse School of Public Communications*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

### MNO 601 - Principles: Business, History, and the Ethics of Journalism

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring  
Journalism principles and ethics case studies in multiplatform media (magazine, newspaper, online), examined and debated in the context of history and the current business environment.

### MNO 606 - Magazine Article Writing

#### *S.I. Newhouse School of Public Communications*

3 credit(s) At least 1x fall or spring  
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: NEW 605

### MNO 608 - Magazine Editing

#### *S.I. Newhouse School of Public Communications*

3 credit(s) Every semester  
Editing and rewriting copy for magazines: ideas, heads, decks, story organization. Pictures, layout, dummy production. Additional work required of graduate students.

## GRADUATE COURSE CATALOG

PREREQ: NEW 605

### **MNO 611 - Web and Mobile Story Production**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
Examines the editorial experience for digital audiences and explores innovation in new storytelling platforms. Students will produce journalism for delivery on web and mobile devices.

### **MNO 612 - Data-Driven Journalism**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
Hands-on course teaches students to gather, analyze and present data as part of the journalistic enterprise. Students will find stories in existing datasets, and build custom datasets as part of investigative journalism projects.

### **MNO 613 - Emerging Media Platforms**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
Learn to identify and embrace opportunities posed by emerging media technologies. Includes a survey of the latest technologies and trends that are changing how people access, interact with and publish news and information.

### **MNO 617 - Multiplatform Reporting and Writing**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Reporting and writing using the beat system. Creating content for different publications, including newspapers, magazines, and websites. Packaging text and multimedia.  
PREREQ: NEW 605

### **MNO 629 - Magazine Management**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Creating a prototype and business plan for a start-up magazine, including reporting, writing, editing, and designing a launch issue. Class works in teams and concludes with a pitch of each idea.  
PREREQ: MNO 608

### **MNO 631 - Journalism Enterprise**

**S.I. Newhouse School of Public Communications**  
3-6 credit(s) Only during the summer  
Capstone experience for graduate magazine, newspaper, and online journalism students. Students work on a professional digital project, secure an approved internship and write a 30-page research paper, or pursue a combination of project and internship.  
PREREQ: MNO 617

### **Multimedia Photography and Design**

#### **MPD 500 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

#### **MPD 600 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

#### **MPD 606 - Advertising and Illustration Photography Capstone**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: MPD 406  
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 604

#### **MPD 626 - Multimedia and Photojournalism Capstone**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: MPD 426  
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.

#### **MPD 678 - Graphic Design Capstone**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Double Numbered with: MPD 478  
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 677

#### **MPD 690 - Independent Study**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Upon sufficient interest  
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.  
Repeatable

### **Newspaper and Online Journalism**

#### **NEW 500 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.  
Repeatable

#### **NEW 508 - Newspaper Editing**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
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 BDJ 664 OR MNO 617  
Repeatable 1 time(s), 6 credits maximum

## GRADUATE COURSE CATALOG

### **NEW 535 - Newspaper and Magazine Practicum**

#### ***S.I. Newhouse School of Public Communications***

1-3 credit(s) Every semester

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 BDJ 664 OR MNO 617

Repeatable 2 time(s), 3 credits maximum

### **NEW 600 - Selected Topics**

#### ***S.I. Newhouse School of Public Communications***

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **NEW 605 - News Writing and Reporting**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Only during the summer

Gather news and information for storytelling on multiple platforms: reporting, writing for print, introduction to taking photos, shooting video, capturing audio, using social media. Learn traditions, responsibilities of a free press, ethics, plagiarism, libel.

### **NEW 608 - Principles of Journalism**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Irregularly

Theoretical, historical background. Social functions; economics; ethics. Daily, community, alternative press magazines. Online operations.

### **NEW 635 - Newsroom Practicum**

#### ***S.I. Newhouse School of Public Communications***

6 credit(s) Irregularly

News gathering, writing, and editing practice and analysis using the Syracuse area as a news laboratory.

PREREQ: NEW 508, NEW 617

## **Photography**

### **PHO 500 - Selected Topics**

#### ***S.I. Newhouse School of Public Communications***

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **PHO 510 - Photographic Workshop**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Irregularly

Advanced photography. Problems in advertising illustration, photojournalism, and digital imaging. Emphasizing selection, composition, and content suitable for communication media.

Repeatable 1 time(s), 6 credits maximum

### **PHO 511 - Color Imaging**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Irregularly

Technical and creative application of color theory and color-imaging technology for communications.

### **PHO 515 - Contemporary Photography**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Contemporary photography in illustration, advertising, and journalism. Aesthetic and communicative aspects. Lecture course without laboratory.

### **PHO 530 - Topics in Photography**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

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.

Repeatable 2 time(s), 9 credits maximum

### **PHO 555 - Photography for Newspaper and Magazine**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester

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**

#### ***S.I. Newhouse School of Public Communications***

0 credit(s) Every semester

Basic photo lab for PHO 301 or PHO 555.

COREQ: PHO 301 OR PHO 555

### **PHO 560 - Advanced Photo Lab**

#### ***S.I. Newhouse School of Public Communications***

0 credit(s) Every semester

Advanced photo lab to support advanced photography course work. Enrollment in advanced photography courses.

Repeatable 7 time(s)

### **PHO 581 - Photographic Workshop**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Irregularly

Advanced photography workshop in advertising

and/or photojournalism. Emphasis on content suitable for publication in communications media. Offered London campus only.

### **PHO 603 - Advertising and Illustration Photography I**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester

Double Numbered with: PHO 403

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 604 - Advertising and Illustration Photography II**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Double Numbered with: PHO 404

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 603/PHO 403

### **PHO 605 - Photojournalism and Multimedia**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Double Numbered with: PHO 405

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 607 - Advanced Color**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Irregularly

Advanced techniques, aesthetics, and communication in the color medium.

### **PHO 608 - Problems in Photography**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester

Advanced problems and projects in various areas of photography. Permits student to concentrate on specific areas of interests.

### **PHO 609 - Problems in Photography**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester

Advanced problems and projects in various areas



## GRADUATE COURSE CATALOG

of photography. Permits student to concentrate on specific areas of interests.

### **PHO 610 - Research in Photography**

#### ***S.I. Newhouse School of Public Communications***

1-3 credit(s) Irregularly

For advanced students to conduct technical and creative research.

Repeatable 5 time(s), 6 credits maximum

### **PHO 625 - Picture and Multimedia Editing**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Double Numbered with: PHO 425

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 605

## **Public Relations**

### **PRL 500 - Selected Topics**

#### ***S.I. Newhouse School of Public Communications***

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **PRL 525 - Public Relations Practicum**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

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**

#### ***S.I. Newhouse School of Public Communications***

1-3 credit(s) At least 1x fall or spring

In-depth look at different public relations specializations, including media relations, government relations, investor relations, crisis communications, employee communications, and sports information.

Repeatable 2 time(s), 3 credits maximum

### **PRL 600 - Selected Topics**

#### ***S.I. Newhouse School of Public Communications***

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not

covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **PRL 602 - Introduction to Public Diplomacy and Communications**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Only during the summer

A gateway course for the two-degree program on the theory and practice of public diplomacy. Fundamental topics in public relations and international relations will be explored.

### **PRL 604 - Writing for News and Public Relations**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Students learn the fundamentals of news writing and news media expectations, research and write various communications forms considered "the tools of the public relations trade," including producing a professional "Webinar." Public Relations introduction included.

### **PRL 605 - Public Relations Theory**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

This course covers theories of excellence in public relations by looking at models, roles, communication, organizational culture, diversity and ethics. A brief overview of communication theory included. Theories form the foundation for professional practice.

PREREQ: PRL 604

### **PRL 607 - Advanced Public Diplomacy**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

International public relations and public diplomacy, global media systems, international organizations and the intersection between strategic government communication, mass media and global public opinion.

PREREQ: PRL 602

### **PRL 608 - Public Relations Writing**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Written communication expected of entry-level public relations/public diplomacy professionals, along with the basic understanding of how the media researches, writes, and reports the news.

### **PRL 609 - Advertising and Public Relations Research Design**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester

Crosslisted with: ADV 609

The theory and application of research methods to solve advertising and public relations

communication problems.

### **PRL 611 - Public Relations Research**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Nature, formation, and communications of attitudes and public opinion in public relations settings. Application of social science methods for measuring attitudes, opinions, and public relations performances. Actual research designed and carried out for client.

PREREQ: PRL 604

### **PRL 614 - Advanced Public Relations Writing for Digital Platforms**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

This course builds on the students' understanding of news writing and fundamental writing skills emphasized and developed in PRL 604 by introducing them to social media and writing for an online, digital world.

PREREQ: PRL 604

### **PRL 615 - Public Relations Campaign Planning & Execution**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Students apply strategic planning, research and tactics to client needs. Teams design, execute and evaluate appropriate integrated campaigns for actual clients. Frequent client/team interaction required. Campaign books produced are part of the student's professional portfolio.

PREREQ: PRL 605 AND PRL 611 AND PRL 614

### **PRL 625 - Seminar in Public Relations Management**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Irregularly

Special problems in a specific area of organizational public relations.

PREREQ: PRL 615

### **PRL 635 - Public Relations Culminating Experience**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) At least 1x fall or spring

Students work in a professional setting full-time for a minimum of eight weeks. Students are responsible for a journal of observations, and a midpoint and final evaluations. PR master's student with 33 completed hours toward degree required.

PREREQ: PRL 615 AND PRL 725 AND PRL 525 AND COM 698 AND GRA 617

### **PRL 645 - The Ethics of Advocacy**

#### ***S.I. Newhouse School of Public Communications***

3 credit(s) Every semester

## GRADUATE COURSE CATALOG

Double Numbered with: PRL 345

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 725 - Public Relations Management**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring

Historical and current management theories and practices to apply to the public relations function. Students learn the responsibilities of managing a public relations department.

PREREQ: PRL 605, AND PRL 611 AND PRL 614

### **PRL 735 - Public Relations Practicum**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring

A practicum in student internships in professional settings based on interest and career plans. Students will intern and create a portfolio of writing, graphics, and research samples. The course will also include a comprehensive exam. PREREQ: COM 698, GRA 617, NEW 605, PRL 602, PRL 604, PRL 605, PRL 611, PRL 615, PRL 725

## **Television, Radio, and Film**

### **TRF 500 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **TRF 510 - Specialized Practice**

**S.I. Newhouse School of Public Communications**  
1 credit(s) Every semester

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.

Repeatable

### **TRF 530 - Popular Culture Studies**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester

In-depth examination of critical issues, aesthetics, genre, and authorship involved in electronic media and cinema. Topics range from television genres to film classics.

Repeatable 3 time(s), 12 credits maximum

### **TRF 545 - Television & Radio Performance**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly

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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly

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. Repeatable 1 time(s), 6 credits maximum

### **TRF 592 - Film Business**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester

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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester

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**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring

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.

### **TRF 600 - Selected Topics**

**S.I. Newhouse School of Public Communications**  
1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **TRF 605 - Audio Arts Practices**

**S.I. Newhouse School of Public Communications**

3 credit(s) Only during the summer  
Introduction to the fundamental practices involved in the creation of effective audio for radio, music, television, film, and online media.

### **TRF 606 - Visual Storytelling for Education**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Only during the summer

Introduction to planning, designing, writing, and producing motion picture media for educational settings.

### **TRF 610 - Proseminar in Television, Radio, and Film**

**S.I. Newhouse School of Public Communications**  
1 credit(s) Every semester

Review of fundamental theories and questions in the field, with an emphasis on understanding the development of the discipline and implementations of practice, including film, television, radio, music, gaming, Internet, and mobile media.

Repeatable 2 time(s), 3 credits maximum

### **TRF 611 - Dramatic Writing for Television and Film**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring

Preparing and writing scripted dramatic material for small and large screen. Script evaluation, working as a professional writer, and the stages of script development.

### **TRF 621 - Feature Film Writing**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring

Double Numbered with: TRF 421  
Study and practice of the craft of feature film writing. Additional work required of graduate students.

PREREQ: TRF 611

### **TRF 622 - Comedy Writing**

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester

Double Numbered with: TRF 422  
Study and practice of the craft of comedy writing for television and film. Additional work required of graduate students.

### **TRF 624 - Script Development**

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring

Double Numbered with: TRF 424  
Screenwriting theory and the script development process: writing topics include story structure,

## GRADUATE COURSE CATALOG

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.

### TRF 635 - Industry Forces

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Origins and dynamics of corporate structures, revenue models, content, distribution, and regulation in the television, radio, film, and interactive media industries.

### TRF 636 - Critical and Historical Perspectives on Television, Radio, and Film

**S.I. Newhouse School of Public Communications**  
3 credit(s) Only during the summer  
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.  
COREQ: TRF 655

### TRF 637 - Telecommunications Law&Policy

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Introduction to the law and policies that influence the telecommunications industries. Covers the policy environment, historical, and current developments.

### TRF 640 - Topics in Critical and Historical Perspectives

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
Double Numbered with: TRF 340  
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  
Repeatable 3 time(s), 12 credits maximum

### TRF 642 - Television Production Workshop

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: TRF 442  
Students write, design, produce, direct, and program projects specifically for television presentation. Additional work required of graduate students.

### TRF 648 - Producing Radio: On Air to Online

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: TRF 448  
Intermediate study and practice in creating fictional and nonfictional radio content for broadcast and online distribution. Additional work required of graduate students.

### TRF 650 - Advanced Practice: Special Projects

**S.I. Newhouse School of Public Communications**  
1-3 credit(s) Irregularly  
Double Numbered with: TRF 450  
Faculty member works with student on project especially tailored for his/her unique content objectives. Additional work required of graduate students.  
PREREQ: TRF 651 OR TRF 652 OR TRF 653 OR TRF 654 OR TRF 656 OR TRF 657 OR TRF 658 OR TRF 659  
Repeatable 5 time(s), 6 credits maximum

### TRF 651 - Filmmaking

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
Double Numbered with: TRF 451  
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 655

### TRF 653 - Short-form Production

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: TRF 453  
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 655

### TRF 654 - Music Recording

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: TRF 454  
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.  
PREREQ: TRF 655

### TRF 655 - Screenwriting and Production Workshop

**S.I. Newhouse School of Public Communications**  
3 credit(s) Only during the summer  
Introduction to writing, designing, planning, and producing programs for radio, television, and film.  
COREQ: TRF 636

### TRF 656 - Sound for Picture

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: TRF 456  
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.  
PREREQ: TRF 655

### TRF 657 - Music Underscoring

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: TRF 457  
The theory and practice of producing music to underscore visual material. Additional work required of graduate students.  
PREREQ: TRF 655

### TRF 658 - Radio Practicum

**S.I. Newhouse School of Public Communications**  
3 credit(s) Irregularly  
Double Numbered with: TRF 458  
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.  
PREREQ: TRF 655

### TRF 659 - Documentary Production

**S.I. Newhouse School of Public Communications**  
3 credit(s) Every semester  
Double Numbered with: TRF 459  
Student teams write, produce, and edit documentary projects. Additional work required of graduate students.  
PREREQ: TRF 655

### TRF 661 - Advanced Management Seminar

**S.I. Newhouse School of Public Communications**  
3 credit(s) At least 1x fall or spring  
Double Numbered with: TRF 461  
Business of communications industry focusing on management skills and their effective application. Additional work required of graduate students.  
PREREQ: TRF 592 OR TRF 594 OR TRF 595 OR

## GRADUATE COURSE CATALOG

TRF 683

### TRF 662 - Advanced TV Production

#### **S.I. Newhouse School of Public Communications**

3 credit(s) Every semester

Double Numbered with: TRF 462

Students produce six episode, scripted television series to demonstrate mastery of advanced television production practices. Additional work required of graduate students.

### TRF 667 - Screenwriting Master Class

#### **S.I. Newhouse School of Public Communications**

3 credit(s) Every semester

Double Numbered with: TRF 467

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.

PREREQ: TRF 651 OR TRF 652 OR TRF 653 OR TRF 654 OR TRF 656 OR TRF 657 OR TRF 658 OR TRF 659

### TRF 668 - Advanced Audio

#### **S.I. Newhouse School of Public Communications**

3 credit(s) Irregularly

Double Numbered with: TRF 468

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: TRF 651 OR TRF 653 OR TRF 654 OR TRF 656 OR TRF 657 OR TRF 658 OR TRF 659

### TRF 669 - Advanced Filmmaking

#### **S.I. Newhouse School of Public Communications**

3 credit(s) Every semester

Double Numbered with: TRF 469

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.

PREREQ: TRF 651 OR TRF 652 OR TRF 653 OR TRF 654 OR TRF 656 OR TRF 657 OR TRF 658 OR TRF 659

### TRF 675 - Entertainment Industry Practicum

#### **S.I. Newhouse School of Public Communications**

1-3 credit(s) Only during the summer

Students work in a professional setting for a minimum of six weeks. Students are responsible for online participation in discussions, selected readings, written exercises, a journal of observations, and a research paper.

Repeatable 2 time(s), 3 credits maximum

### TRF 683 - Communications Industry Frontiers

#### **S.I. Newhouse School of Public Communications**

3 credit(s) At least 1x fall or spring

Double Numbered with: TRF 483

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 696 - Research for Entertainment Media

#### **S.I. Newhouse School of Public Communications**

3 credit(s) At least 1x fall or spring

Understanding research practices in relation to entertainment media questions and problems. Focus: teaching students to be critical consumers and evaluators of research. Students will apply research practices to questions of particular interest to them. Students who complete this course cannot take COM 605 or 606.

### TRF 698 - Social Effects of Television

#### **S.I. Newhouse School of Public Communications**

3 credit(s) Irregularly

Influence of mass media, especially television, on American society. Television from perspective of social psychology, child development, political science, and sociology.

## S.I. Newhouse School of Public Communications Faculty

Frank Biocca, Professor; Newhouse Chair; Communications; Television, Radio and Film Ph.D., University of Wisconsin-Madison, 1986  
Communication research, health communications, human-computer interaction, media psychology

Lorraine Branham, Professor and Dean, Newspaper and Online Journalism B.A., Temple University, 1976

Journalism ethics, media diversity, news management

Richard L. Breyer, Professor, Television, Radio and Film; Co-Director, Documentary Film and History M.A., New York University, 1967  
Documentary, global communications, India cable television

Harriet Brown, Associate Professor, Magazine M.F.A., Brooklyn College, 1982  
Magazine writing and editing, personal essay writing, body image and media, health communications, health journalism

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  
Minority broadcasting, journalism ethics, media and diversity, broadcast news producing

Nina Brown, Assistant Professor, Communications J.D., Cornell University, 2010  
Trademark infringement, copyright, communications law

Melissa Chessher, Professor, Chair, Magazine; Director, Magazine, Newspaper and Online Journalism Program

M.A., Baylor University, 1987  
Magazine writing and editing, health journalism

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, social media effects

Michael Cremedas, Associate Professor, Broadcast and Digital Journalism Ph.D., University of Florida, 1988  
Broadcast writing, reporting, and production; viewer retention of broadcast news

Anthony D'Angelo, Professor of Practice, Public Relations M.S. Syracuse University, 1997  
Digital public relations, internal and external communications

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, global communication

Steve Davis, Associate Professor, Chair, Newspaper and Online Journalism B.J., University of Missouri at Columbia, 1977  
News writing and reporting, global communications, journalism ethics, news coverage

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 M.B.A., Southern Methodist University, 1990  
Media and digital strategy, packaged goods, beauty and travel industry expertise

Larry Elin, Associate Professor, Television, Radio and Film

## GRADUATE COURSE CATALOG

B.S., Syracuse University, 1973

Television production and interactive multimedia; writing for new media

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

Magazine journalism, digital media, social media and journalism, blogs

Keith Giglio, Assistant Professor, Television, Radio and Film

M.F.A., New York University, 1989

Comedy writing, screenwriting, writing for video games

Seth Gitner, Associate Professor, Newspaper and Online Journalism, Multimedia Photography and Design

B.F.A. Rochester Institute of Technology, 1995  
Digital journalism, multimedia journalism, visual language in communications

Tula Goenka, Associate Professor, Television, Radio and Film

M.S., Syracuse University, 1986

Filmmaking, documentary production, Bollywood and Indian cinema, media and human rights

Guy J. Golan, Associate Professor, Public Relations  
Ph.D. University of Florida, Gainesville, 2003

Public diplomacy, global 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

Eric Grode, Assistant Professor, Director, Goldring Arts Journalism Program

B.S., Syracuse University, 1993

Writing and editing in arts and entertainment, film criticism

Jennifer Grygiel, Assistant Professor, Communications

A.L.M., Harvard University, 2010

Social business and emerging media, social media marketing

Roy Gutterman, Associate Professor,

Communications; Newspaper and Online

Journalism; Director, Tully Center for Free Speech  
J.D., Syracuse University, 2000

First Amendment law, communications ethics and law, legal issues and journalism, public access to information

Ken Harper, Associate Professor, Multimedia Photography and Design; Director, Newhouse Center for Global Engagement

M.A., Ohio University, 2009

Interactive design, crisis communications, interactive storytelling, global communications

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

Media and society, screenwriting, media literacy

William Jasso, Professor of Practice, Public Relations

M.S., Syracuse University, 2002

Communications management, crisis communications, media relations, corporate communications

Hua Jiang, Assistant Professor, Public Relations

Ph.D., University of Maryland, College Park, 2009

Public relations management, social media and public relations, public relations research methods, internal communications

Barbara E. Jones, Professor of Practice, Television, Radio and Film

M.S., Syracuse University, 1988

Television programming, television business, interactive digital media, communications management

Joel Kaplan, Professor, Newspaper and Online Journalism; Associate Dean for Graduate Professional Studies

M.S.L., Yale Law School, 1991

Investigative reporting, media law, First Amendment law

Johanna Keller, Associate Professor, Newspaper and Online Journalism; Communications

M.A., Antioch University, 1996

Arts journalism, media coverage of arts and culture, media and diversity

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 communications, Q-methodology

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 sociology, women in media, media and diversity

Joon Soo Lim, Assistant Professor, Public Relations  
Ph.D., University of Florida, 2006

Public relations campaigns, social media strategies, social influence and persuasion

Patricia H. Longstaff, David Levidow Professor of Communications Law and Policy, Television, Radio and Film

M.P.A., Harvard University, 1994

Communications law, entertainment law, communication policy, global communications

Suzanne Lysak, Associate 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

Designing and developing new media, content management systems, optimizing use of new media

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 communications

R. Gustav Niebuhr, Associate Professor, Newspaper and Online Journalism

M.A., Oxford University, 1980

Religion reporting, religion and politics, urban affairs, blogging

## GRADUATE COURSE CATALOG

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  
Digital media and journalism, innovation in  
journalism, virtual reality

Michael Park, Assistant Professor,  
Communications  
Ph.D., University of Southern California, 2014  
Media law, First Amendment law, emerging  
media policy, sports communications, media and  
diversity

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  
Audio production, music recording, sound design  
and recording

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, crisis  
communications, media 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 journalism, blogs

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  
Global communications, media effects, media  
sociology

Evan Smith, Professor, Television, Radio and Film  
M.S., Syracuse University, 1979  
Television and feature film script writing, comedy  
writing, 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.B.A., Syracuse University, 1988  
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, Bleier Center for Television and Popular  
Culture  
Ph.D., Northwestern University, 1987  
Television history, media criticism, popular culture,  
television programming

Donald C. Torrance, Associate Professor, Broadcast  
and Digital Journalism; Television, Radio and  
Film; Director, Newhouse Environmental Science  
Communications Program  
B.A., Alfred University, 1971  
Broadcast news writing and production, television  
production, science journalism

James Tsao, Professor; Chair, Advertising  
Ph.D., Temple University, 1989  
Online advertising, international advertising,  
interactive branding/marketing

Christopher Tuohey, Associate Professor, Chair,  
Broadcast and Digital Journalism  
M.A., Ohio State University, 1990  
Broadcast news reporting, writing, and producing,

employment issues in news

Randy Wenner, Adjunct Professor/Administrator,  
Broadcast and Digital Journalism  
M.S., Syracuse University, 1996  
Broadcast news writing, producing, and reporting

Melanie White, Assistant Professor, Advertising  
B.F.A., Syracuse University, 1989  
Art direction, advertising design, brand strategy

# College of Visual and Performing Arts

Ann Clarke, Dean  
200 Crouse College  
<http://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, which includes the Department of Art, the Department of Design, and the Department of Transmedia, 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.

## Accreditation

The college's programs in art, design, and transmedia are accredited by the National Association of Schools of Art and Design (NASAD). In addition to NASAD accreditation, our environmental and interior design program is also accredited with the Council for Interior Design Accreditation (CIDA). The Setnor School of Music and its programs are accredited by the National Association of Schools of Music (NASM). Programs in the Department of Communication and Rhetorical Studies and the Department of Drama engage in regularly scheduled Self-Studies involving programmatic review and site visits by a panel of external reviewers from their respective disciplines.

## General Regulations

For academic rules and regulations that apply to all University students, see the Academic Rules section of this catalog, which also contains special regulations that apply to all undergraduate students matriculated in the College of Visual and Performing Arts.

## 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.

## Graduate Studies Information

Graduate students in the College of Visual and Performing Arts benefit from an effective combination of studio, performance, and research activities. Faculty advisors carefully establish the parameters of each graduate student's course of study and advance and facilitate interdisciplinary study. The aesthetic climate of the college supports and encourages the development of individual potential. In addition, the college recognizes the link between education, critical thinking, and cultural knowledge. Diversity and community are emphasized as important elements of every student's program design.

The college's graduate programs attract students of superior intellectual and creative ability from many distinguished institutions throughout the world. The faculty is composed of professional artists, designers, musicians, composers, actors, and scholars who are active and recognized in their fields. In addition, the college is committed to maintaining a regular influx of prominent visiting professionals.

## Graduate Awards

### Fellowships and Scholarships

Syracuse University provides University Graduate Fellowships on a competitive basis. These provide a competitive stipend for nine months of full-time study in addition to a tuition scholarship. See application materials for specific deadlines.

### Assistantships

The College of Visual and Performing Arts may offer a teaching, technical, and/or administrative assistantship to qualified recipients, including first-year students. Assistantships offer valuable opportunities for students to enhance their professional credentials. Renewal of assistantships is based on superior performance in coursework and in assistantship assignments.

## Tuition Scholarships

In addition to fellowships and assistantships, tuition scholarships in varying amounts are offered to outstanding students as evidenced by academic record and merit.

## Scholarships

The college has a limited number of small scholarships to support graduate students. All scholarships are available to first-year students, and are based on merit.

## Graduate Good Standing Status

To be a graduate student in good standing, students must comply with the Graduate Grading Standards, which consider passing grades as A, A-, B+, B, B-, C+, C, and C-. The D grade is not an option for graduate students. The minimum GPA for graduate work is 2.8 in the first 30 credits. Certification for an advanced degree requires a minimum average of 3.0 for work comprising the program for the degree and a 2.8 average for all credits earned. This information can be found in the Academic Rules and Regulations section of this catalog.

Specific programs in the College of Visual and Performing Arts can require the passing of additional reviews, examinations, and assessments of graduate work for a graduate student to be considered in good standing. Such reviews and assessments can result in continuation without reservations, continuation during a probationary period, or termination of student status. Students should consult their advisor for policies specific to their program or area.

## Facilities

The College of Visual and Performing Arts provides an extensive array of facilities that support our academic programs, including:

ART - extensive studio facilities in the Comstock Art Building on south campus and the Shaffer Art Building and Smith Hall on main campus. These facilities are supported by wood and metal shops. At the Comstock location, we have five studio areas. The **Art Education** facility includes studio and classroom space. Our recently renovated **Ceramics** facility includes a state-of-the-art materials room, critique gallery, clay making room, mold/plaster room, dry and wet glaze labs, a resource room, throwing studio/classroom, sculpture studio/classroom, as well as indoor and outdoor kiln facilities (Blaauw, Geil, Anagama, and others). The **Jewelry and Metalsmithing** facility includes a well-equipped main studio

## GRADUATE COURSE CATALOG

with individual work stations, small machine and plating/anodizing rooms, plus casting, soldering, and finishing equipment. The **Printmaking** facility includes a 6,400 square foot studio space, housing a wide range of relief, intaglio, lithography, and letter presses, serigraphy/silkscreening capabilities, and hand papermaking equipment. Our **Sculpture** facility offers ample workspaces for assembly, project spaces dedicated to installation and performance, gallery spaces for student exhibitions, outdoor casting and large-scale fabrication capabilities, and semi-private studio spaces for undergraduate students. Shaffer Art Building houses two studio programs. The **Illustration** facility includes studio and classroom spaces, while the **Painting** facility includes well-lit studios with special skylights receiving north light, and a complete workshop. Finally, Smith Hall serves as the College's graduate and multidisciplinary hub as well and home to various functions of the Schools of Art and Design and Communication and Rhetorical Studies Department.

**DESIGN** - Our Design programs are housed in the Nancy Cantor Warehouse, Syracuse University's seven-floor building in downtown Syracuse. The Warehouse's open, industrial space was recently renovated to contain professional studio facilities for each design program; two shared computer labs; a printing lab; and Design Works, a fabrication lab. A student lounge, café, and gallery are conveniently located on the first floor.

**TRANSMEDIA** - Facilities supporting the Department of Transmedia are located in the lower level of Shaffer Art Building. Art Photography students have access to digital and analog facilities, including professional scanning and digital printing equipment, and can also utilize production facilities at **Light Work** as well as our own studios and classrooms. The range of facilities ensures easy access to professional digital, analog, and lighting equipment, including large format ink-jet printers and a 44-inch color processor. Computer art facilities include a graduate studio, an advanced audio production and scanning studio, and a main computer lab. Art Video sports a multi-use, multi-format facility, in which production is executed with mini-DV camcorders, digital audio recorders, and necessary peripherals. Post-production suites are equipped with Macintosh-based non-linear editing systems. Video projectors are available for presentations and exhibition. There are digital, multi-track audio studios, plus access to other Syracuse University facilities to complement production, post-production and exhibition activities. The Film Art production facilities include sync-sound camera/recorder packages: Aaton Super 16, Arriflex Super 16 and regular 16, CP16, non-sync Bolex cameras, SONY and PANASONIC DV and HDV video cameras; a broad array of location lighting and grip gear; Final Cut Pro non-

linear editing stations equipped for HD editing; Steenback flatbed editors; a sound mix studio; an Oxberry animation studio; and a lighting studio.

**DRAMA** - The Regent Theatre Complex, which houses the Department of Drama and Syracuse Stage, contains three theaters and a cabaret space. These four performance spaces provide the broadest range of design and staging possibilities, from conventional proscenium to theater-in-the-round. Included in the complex are The John D. Archbold Theatre, a 499-seat proscenium theater; The Arthur Storch Theatre, seating up to 250 people, can be configured as a proscenium, thrust, or avenue stage; The Loft Theatre is an intimate and flexible space that seats 65 audience members in a variety of configurations, but is most often used for short plays, readings, workshops and experimental efforts; The Sutton Pavilion provides a versatile cabaret space, often for late-night entertainment for Syracuse University and the greater Syracuse communities. The complex also includes dance studios, performance/rehearsal studios, lecture rooms, seminar rooms, musical practice rooms, locker rooms, and showers - as well as the professionally staffed technical shops that build the Syracuse Stage and Department of Drama productions. Facilities adjacent to the complex provide theater design and technology studios, classrooms, and CAD lab.

**MUSIC** - The Setnor School of Music, located in Crouse College, is home to the acoustically rich, 700-seat Rose and Jules R. Setnor Auditorium, with its 3,823-pipe Holtkamp Organ. Approximately 200 recitals occur in this space each academic year. The school has classrooms and rehearsal spaces in Crouse College and Shaffer Art Building, as well as a recording studio in the Belfer Audio Archives.

**COMMUNICATION and RHETORICAL STUDIES** - located in recently renovated space in Sims Hall, the department's facilities include classrooms designed for video capture and replay of student speech-making, along with multi-purpose room for hosting meetings and events.

## Research Centers and Institutes

The College of Visual and Performing Arts supports and celebrates a culture of research. Both faculty and students across departments and programs engage in a variety of individual, group and cross-disciplinary initiatives that seek to expand human knowledge through creative analysis, innovation, and insight. These efforts are disseminated in a variety of ways including publishing, presentations, exhibitions and performances. The College's Office of Research and Graduate studies facilitates both internal and external funding to support these

efforts and the colleges' mission of providing an environment that thrives on critical thought and action.

## School of Art and Design

Stephanie James, Director Department of Art  
102 Shaffer Art Building, 315-443-4613  
<http://vpa.syr.edu/art>

James Fathers, Director Department of Design  
The Warehouse, 315-443-2455  
<http://vpa.syr.edu/design>

Heath Hanlin, Chair Department of Transmedia  
102 Shaffer Art Building, 315-443-1033  
<http://vpa.syr.edu/transmedia>

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. In addition, the school works in cooperation with the SU Art Galleries, Syracuse University Library's Special Collections Resource Center; LightWork; and the Sue Ann Genet Costume Collection.

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.

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 & Light

ART 111 - History of Modern Art: 1850-Present

ART 112 - Special Topics in History of Art

ART 113 - History of Modern Design:  
1850-Present

ART 114 - Special Topics in History of Design

ART 250 - Filmmaking: Cinematic Modes

ART 300 - Selected Topics (e.g., Art and Politics)

ART 361 - Studio Symposium

ART 561 - Studio Symposium

ART 563 - Art in America I

ART 564 - Art in America II

PTG 300 - Decoding Images

EDI 553 - Philosophy and Research

IND 577 - Industrial Design: Philosophy and  
Ethics

DES 248 - Design Issues

## Department of Art

### Contact

Stephanie James, Director  
102 Shaffer Art Building, 315-443-4613  
<http://vpa.syr.edu/art>

The 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  
<http://vpa.syr.edu/design>

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 Transmedia

### Contact

Heath Hanlin, Chair  
102 Shaffer Art Building, 315-443-1033  
<http://vpa.syr.edu/transmedia>

Students in the 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.

## Master's

### Art Photography, MFA

### Contact

Laura Heyman, Department of Transmedia  
102 Shaffer Art Building, 315-443-1033,  
[lheyman@syr.edu](mailto:lheyman@syr.edu)

### Faculty

Yasser Aggour, Doug DuBois, Laura Heyman,  
Edward Morris, Susannah Saylor

### Description

The M.F.A. program in art photography includes tutorials, group critiques, and courses in history, theory, and criticism. The program is dedicated to experimentation and exploration within a wide range of photographic and conceptual practices. This pluralistic approach to the medium gives graduate students a nuanced understanding of photography as it relates to contemporary art practice.

The program offers darkroom and studio facilities equipped for work in black and white, color, and digital photography. Graduate students have separate darkrooms: a black and white facility and a color lab that includes a 40- inch processor, high resolution film scanners and large- format archival inkjet printers. Digital SLR's, medium- and large-format film cameras, and an extensive array of lighting equipment are available for checkout. A shooting studio is equipped for all formats of digital and analog photography.

Graduate students also benefit from the department's close association with Light Work, a nonprofit organization on campus that sponsors an 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 students.

### Program Requirements

#### Major Studio: 24 credits

**APH 640 - Art Photography 3-12 credit(s)**  
12 credits

**APH 740 - Art Photography 3-12 credit(s)**  
12 credits

Studio Electives: 12 credits

Art History or related academics:

## GRADUATE COURSE CATALOG

12 credits

Free Electives: 6 credits

Graduate Seminar: 3 credits

**TRM 701 - TransMedia Graduate Seminar**  
**3 credit(s)**

Final Presentation: 3 credits

Length of Residency: 3 years

Total Credits Required: 60

Degree Awarded: MFA in Art  
Photography

### Art Video, MFA

### Contact

Tom Sherman, Department of Transmedia  
102 Shaffer Art Building, 315-443-1202,  
twsherma@syr.edu

### Faculty

Cooper Battersby, Boryana Dragoeva, Tom  
Sherman, Emily Vey Duke

### Description

The graduate program in art video encourages exploration of the aesthetic possibilities of subject, genre, and media technologies from personal points of view. Students in the M.F.A. program work closely with faculty in developing structure and strategies for making art in the video medium, including performance, narrative, documentary, site-specific, and multichannel installation.

The program is supported by a multiple format video and audio facility. Production is executed with mini-DV camcorders, digital audio field recorders, and necessary peripherals. Post-production suites are equipped with Macintosh-based, non-linear editing systems. Video projectors are available for exhibition. There are also digital, multi-track audio studios, a large green-screen shooting stage, plus access to other University facilities to complement production, post-production, and exhibition activities.

The art video program at the M.F.A. level assumes candidates are highly motivated to produce challenging work and are capable of working in a tutorial environment.

Financial awards are based on portfolio review,

letters of recommendation, and previous experience. The production and post-production facilities are staffed by graduate students, affording the opportunity to learn successful management of a multi-use, multi-format facility. M.F.A. degree recipients have typically continued in their field as video artists, independent producers, and faculty in other university video and new media programs.

### Program Requirements

Major Studio: 24 credits

Studio Electives: 12 credits

**VID 510 - Video Art History 3 credit(s)**

**VID 610 - Video Research 3-9 credit(s)**

**VID 613 - Advanced Post-Production  
Techniques 3 credit(s)**

**VID 710 - Video Research 3-12 credit(s)**

Art history or related academics:  
12 credits

Free electives: 6 credits

Graduate seminar: 3 credits

**TRM 701 - TransMedia Graduate Seminar**  
**3 credit(s)**

Final presentation: 3 credits

Total Credits Required: 60

Length of Residency: 3 years

Degree Awarded: MFA in Art  
Video

### Audio Arts, MA

### Contact:

Douglas Quin, Co-Director  
315-443-7398, dhquin@syr.edu

David Rezak, Co-Director  
315-443-3280, dmrezak@syr.edu

### Faculty

Various faculty from the College of Visual and Performing Arts' Setnor School of Music and Newhouse School's Television, Radio and Film Department.

## M.A. in Audio Arts

Audio Arts is a joint graduate studies program harnessing the experience and strength of the Schools of Music and Communications. Four specialization tracks are offered in distinctive areas of audio practice: Music Industry, Audio Recording, Radio Horizons and Music Video.

The holder of an MA in the Audio Arts with specialization in Music Industry will be prepared to enter one of dozens of career paths. Graduates will embrace the trust-based relationship they must develop with artists and be able to think critically and constructively about audio and music and making a market in an art form. The student's self-directed curricular specialization choices and internship focus will dictate the job options.

## Accreditation

The Audio Arts Master's Program was created to comply with and/or exceed the standards of two accrediting bodies: The National Association of Schools of Music and the Accrediting Council for Education in Journalism and Mass Communication.

## Admission

The Audio Arts admissions process seeks to measure applicants along several criteria in search of a holistic measure of student potential. Though experience in music and audio is valued in the process, the most important aspects in a prospective student's profile are a demonstrated work ethic, broad and varied education and life experience and deep passion to succeed and contribute to the audio arts.

### Program Requirements

Required Courses: 24 credits

**EEE 620 - Foundations of Entrepreneurship**  
**3 credit(s)**

**RAE 601 - Audio Arts Graduate Survey 3**  
**credit(s)**

**RAE 610 - Audio Arts Colloquium 1**  
**credit(s)** (three 1-credit modules)

**RAE 675 - Audio Arts Industry Practicum 3**  
**credit(s)**

**TRF 510 - Specialized Practice 1 credit(s)**  
(three 1-credit modules)

**TRF 605 - Audio Arts Practices 3 credit(s)**

**TRF 637 - Telecommunications Law&Policy**  
**3 credit(s)**

Capstone in Audio Arts, choose one:

**TRF 600 - Selected Topics 1-6 credit(s)**  
Human-Computer Interaction

**TRF 642 - Television Production Workshop  
3 credit(s)**

**TRF 668 - Advanced Audio 3 credit(s)**

**TRF 669 - Advanced Filmmaking 3 credit(s)**

### Note on Newhouse School-wide Requirements for Graduate Programs

The required law and research components are fulfilled with the following coursework:

Law Component: TRF 637 - Telecommunications Law&Policy

Research Component: both RAE 601 - Audio Arts Graduate Survey, and EEE 620 - Foundations of Entrepreneurship.

Together, these courses introduce students to the practice and application of research to audio arts issues and ideas. The dynamic context of entrepreneurial foundations is a particularly fitting place for students in the program to develop their research skills in anticipation of the uncertain and often volatile audio arts fields they will one day lead.

In addition, the Research for Entertainment Media class (TRF 696) will be an elective part of each area of audio arts specialization.

### Electives: 12 credits

Electives include twelve credits of specialization to focus on an individual's interests and strengths. The curriculum will allow for enough elective flexibility to create a "focus area":

#### Fields of specialization

Music Industry

Sound Production & Arts

Radio Horizons

Music Video

### Transfer Credit

Up to 6 credits of approved non-matriculated graduate coursework

### Satisfactory Progress:

3.0 Minimum GPA for Graduation

**Total Credits Required: 36**

**Degree Awarded: M.A. in Audio Arts**

## Ceramics, MFA

### Contact

Errol Willet, Department of Art

ComArt Building, 315-443-3700, eswillet@syr.edu

### Faculty

Peter Beasecker, Margie Hughto, Errol Willett

### Description

Graduate study in ceramics may be directed toward pottery, sculpture, tile mosaics, or other areas of ceramics. Students work in new and traditional techniques in clay and glaze technology and expand their knowledge of the use of clay, glaze, and slips in the building and decorating of pottery, ceramic sculpture, and tile mosaics. Use of gas and electric kilns, other equipment, and the actual running of a ceramic studio are included in this M.F.A. program.

Students work in individual studios within the ceramics facility and maintain active relationships with faculty members, staff members, and other students.

Career possibilities include being a working artist and commercial applications as well. Graduates combine ceramics with work in a gallery or with work on historical restoration projects, in teaching, museum work, or with design consultants.

### Major Requirements

**Major studio: 24 credits**

**Studio electives: 12 credits**

**Art history or related academics:  
12 credits**

**Free electives: 6 credits**

**Graduate seminar: 3 credits**

**Final presentation: 3 credits**

**Total Credits Required: 60**

**Length of residency: 3 years**

**Degree Awarded: MFA in Ceramics**

## Collaborative Design, MFA

### Contact

Donald Carr, Department of Design

The Warehouse, 315-443-2455, dwcarr@syr.edu

### Faculty

Donald Carr, James W Fathers, Sarah Redmore

### Description

The master of fine arts (M.F.A.) in collaborative design is a two-year graduate program that engages students in collaborative practice within a dynamic multi-disciplinary studio environment. This professional graduate program breaks down boundaries in the academic and corporate worlds, bringing together students, faculty, communities, and businesses to work collaboratively on the world's significant problems for the greater good. The program leads to a master of fine arts (M.F.A.) degree in collaborative design.

The M.F.A. in collaborative design is closely aligned with the internationally recognized strengths of Syracuse University, allowing design to be integrated with various campus-wide initiatives. The curriculum is propelled by research work that takes place on an ongoing basis, allowing students to gain unique perspectives and project-based design experiences that lead to a competitive advantage once they graduate. Currently the collaborative design program maintains a research focus based on inclusive design and various lifespan initiatives.

The program is housed within the Department of Design, in Syracuse University's College of Visual and Performing Arts (VPA). The program leverages the energy and activities of other nationally and internationally prominent Syracuse University organizations such as the Aging Studies Institute, the Burton Blatt Institute, and the Syracuse Center of Excellence, as well as SU colleges such as the iSchool, Maxwell School of Citizenship and Public Affairs, Newhouse School of Public Communications, Whitman School of Management, and SUNY College of Environmental Science and Forestry.

A background in design is not required for admission to the program. Students with no design experience will learn basic technical skills and design methodology prior to beginning the program through a series of courses (introduction to design studio and design communications.) All students, even those with a design background, are required to take the course on design thinking and strategies.

## GRADUATE COURSE CATALOG

### Program Requirements

### Program Prerequisites

**DES 648 - Introduction to Design Communication 3 credit(s)**

**DES 672 - Introductory Design Studio 3 credit(s)**

### Required Courses

**DES 772 - Design Project 6 credit(s)**

**DES 647 - Design Research 3 credit(s)**

**DES 748 - Design Communication 3 credit(s)**

**DES 771 - Analysis and Synthesis 3 credit(s)**

**DES 996 - Final Presentation 6 credit(s)**

Focus Requirement #1 3 credit(s)

Focus Requirement #2 3 credit(s)

Focus Requirement #3 3 credit(s)

Studio Elective 6 credit(s)

Elective 3 credit(s)

**DES 997 - Masters Thesis 6 credit(s)**

Total Credits Required: 60

Degree Awarded: MFA in Collaborative Design

### Computer Art, MFA

### Contact

Annina Ruest, Department of Transmedia  
102 Shaffer Art Building, 315-443-1033, arust@syr.edu

### Faculty

Heath Hanlin, Annina Ruest, Rebecca Xu

### Description

The master of fine arts (M.F.A.) degree program in computer art is an artistic research and development program situated in the context of technology. You are encouraged to develop a diverse set of practices within computer art.

Areas of inquiry may include computer animation, visual effects, physical computing, electronic objects, software art, sonic art, multi-channel installation, and gaming.

Students are expected to develop a strong

record of professional practice in a variety of contexts including exhibition, screenings, public intervention, installation, performance, workshops, gaming events, and viral media, among other forms of public engagement.

The M.F.A. computer art program is a supportive, demanding, and highly critical environment. You work with the three full-time computer art faculty, encompassing a wide range of conceptual, theoretical, and technical ground. As the computer art program is located in the Department of Transmedia, you are expected to form relationships with faculty and peers from related disciplines. Expanding outward, the Department of Transmedia has connections with other academic areas at Syracuse University, including women's studies, architecture, studio arts, and computer science. When selecting courses, you are strongly encouraged to formulate an individual interdisciplinary path of study within the University as a whole.

Master's degree students are encouraged to develop their personal vision of computer art in areas as diverse as computer animation, physical computing, procedural thinking, net. art, sonic art, multi-channel installation, and gaming. The program's faculty have wide research and technical interests encompassing all these areas in their professional practices.

In addition to creative work, students are expected to develop a personal exhibition strategy and strong exhibition record. Our alumni follow a variety of career paths, from academia to independent work to industry. We are dedicated to helping you reach these goals in a supportive, but demanding and highly critical, environment.

The curriculum is very open, allowing the opportunity for M.F.A. candidates to make vital connections in other areas of the University, such as women's and gender studies, studio arts, computer science, and especially the other areas within transmedia: photography, video, and film.

Graduate students have 24-hour access to all computer art facilities, dedicated Apple MacPro workstations, video post-production, audio production, a recording studio, video camcorders, field audio recorders, and an array of physical computing gear.

### Program Requirements

Major Studio: 24 credits

**CAR 630 - Computer Art Studio 3-12 credit(s)**

**CAR 730 - Computer Art Studio 3-12 credit(s)**

Studio Electives: 12 credits

Art History or related academics: 12 credits

Free Electives: 6 credits

Graduate Seminar: 3 credits

Final Presentation: 3 credits

**CAR 996 - Final Presentation 3 credit(s)**

Total Credits Required: 60

Length of Residency: 3 years

Degree Awarded: MFA in Computer Art

### Film, MFA

### Contact

Owen Shapiro, Department of Transmedia  
102 Shaffer Art Building, 315-443-1033, ojshapir@syr.edu

### Faculty

Kara Herold, Alexis Mendez, Vasilios Papaioannu, June Kyu Park, Owen Shapiro, Miso Suchy

### Description

The M.F.A. in film is an advanced degree for filmmakers, earned in preparation for a professional career. The program emphasizes two things equally: creative production in dramatic, experimental, and documentary forms, and film studies (notably theory, criticism, and history). Production courses and academic courses are integrated throughout, and this intense mingling of theory and practical application results in a lively interchange of ideas and a viable transferring of ideas into action.

The program meets professional and educational needs in experimental and dramatic film production. The complementary curriculum structured for the degree in film is unique, and courses are offered throughout the year, including some summer sessions.

A minimum of 60 credits is required in film, including a thesis film and project paper. Prerequisites for all students are two semesters of film history, one semester of film theory, and one semester of 16mm film. Candidates must also take whatever undergraduate courses are needed to correct deficiencies in their previous training. No entrance exams are required, but

## GRADUATE COURSE CATALOG

applicants must submit a portfolio and arrange for a personal interview with the program head if applying for a fellowship or assistantship. Phone interviews may be acceptable when circumstances warrant. A residence of three years is normally required to complete the program.

The physical facilities for film production are among the best in the country. There is a digital sound studio for mixing, foley and music recording, a 1,200- square- foot sound stage, and an animation studio. There are more than 30 16mm cameras ranging from Bolex non-synch cameras to Arri SR- 2s to Super- 16mm Aaton cameras and numerous digital sound recording devices. Post facilities include digital edit suites for standard definition film/video as well as HDV. Analog facilities include nine 16mm flatbed editors. A large selection of grip and lighting equipment is also available.

M.F.A. degree candidates are required to produce three films; the third film is their thesis project. Two of these films, one of which must be the thesis project film, must be taken to a faculty approved answer print stage. All M.F.A. degree candidates are required to screen and discuss their work at an annual portfolio review and in original graduate student showcases.

### Program Requirements

Major Studio: 24 credits

**FIL 523 - Cinema Acting&Directing 3 credit(s)**

**FIL 620 - Filmmaking:Graduate Project 0-6 credit(s)**

**FIL 625 - Intro Film Theory&Criticism 3 credit(s)**

**FIL 626 - Problems of Film Perception 3 credit(s)**

Studio Electives: 12 credits

Art History or related academics:  
12 credits

Free Electives: 6 credits

Graduate Seminar: 3 credits

**TRM 701 - TransMedia Graduate Seminar 3 credit(s)**

Final Presentation: 3 credits

**FIL 996 - Final Presentation 3 credit(s)**

Total Credits Required: 60

Length of Residency: 3 years

Degree Awarded: MFA in Film

### Illustration, MFA

#### Contact

Martha Blake, Department of Art  
102 Shaffer Art Building, 315-443-4613,  
mablake@syr.edu

#### Faculty

Martha Blake, Yvonne Buchanan, Robert Dacey,  
James Ransome, John Thompson

#### Description

This program is well suited for individuals who wish to further their illustration skills, as well as those who desire to teach. The program integrates individual studies with opportunities for the student to sit in on undergraduate illustration classes to observe how illustration is taught. Students will be offered the option to teach.

The program requires a 60-credit degree with a three-year residency. The candidate will also produce a body of work as a thesis requirement and participate in an M.F.A. exhibition.

Candidates for admission are expected to give evidence of superior accomplishment and potential. It is recommended that the applicant have some professional experience in the illustration field. Artwork/slides/portfolio should demonstrate strong drawing and painting skills, as well as conceptual and storytelling ability.

The resident illustration program faculty members are all nationally recognized illustrators. They are supplemented by prominent visiting faculty and lecturers.

### Program Requirements

Major studio: 24 credits

Studio electives: 12 credits

Art history or related academics:  
12 credits

Free electives: 6 credits

Graduate seminar: 3 credits

Final presentation: 3 credits

Total Credits Required: 60

Length of residency: 3 years

Degree Awarded: MFA in  
Illustration

### Jewelry and Metalsmithing, MFA

#### Contact

Barbara Walter, Department of Art  
ComArt Building, 315-443-3700, bewalter@syr.  
edu

#### Faculty

Lori Hawke, Barbara Walter

#### Description

The jewelry and metalsmithing program at Syracuse is concerned with the development of students as artists and designers able to manipulate a variety of metals and tools for aesthetic ends. In addition to the metalsmithing faculty, visiting artists and faculty in related areas support the education of metalsmithing students. Visiting artists have included alumni Harriete Estel Berman and Bruce Metcalf as well as Gary Griffin, William Harper, Chris Irick, and Tacey Rosolowski.

Qualified students with backgrounds germane to the area may earn the M.F.A. Candidates have the opportunity to conduct research through individual programs developed in consultation with the department's faculty. While the program is based on traditional jewelry and metalsmithing techniques, mixed media and non-traditional approaches are encouraged. Instruction is one-to-one.

Each graduate student is assigned a small semi-private studio. The program is housed in a well-equipped facility.

### Program Requirements

Major Studio: 24 credits

**JAM 620 - Jewelry and Metalsmithing  
Research Problems 1-12 credit(s) 12  
credit(s)**

**JAM 720 - Jewelry and Metalsmithing  
Graduate 1-9 credit(s) 12 credit(s)**

Art History or related academics:  
12 credits

## GRADUATE COURSE CATALOG

### **JAM 671 - History of Jewelry and Metalsmithing 3 credit(s)**

Art History Electives 9 credits

Free Electives 6 credits

Graduate Seminar: 3 credits

### **ART 702 - Graduate Seminar 3 credit(s)**

Final Presentation: 3 credits

### **JAM 996 - Final Presentation 3 credit(s)**

Total Credits Required: 60

Length of Residency: 3 years

Studio Electives: 12 credits

Degree Awarded: MFA in Jewelry and Metalsmithing

## **Museum Studies, MA**

### **Contact**

Edward Aiken, Department of Design  
The Warehouse, 315-443-2455, eaaiken@syr.edu

### **Faculty**

Edward Aiken, Emily Stokes-Rees

### **Description**

The Master of Arts in museum studies prepares individuals to enter the museum profession through a course of study leading to the M.A. degree. The curriculum is grounded in research, scholarship, design, and actual practice. At the center of the program is the belief that the museum professional serves as the liaison between the viewing public and the museum object. Furthermore, the program is structured in a manner that enables our students to develop an understanding of the relationship between theory and practice. The Syracuse University Art Galleries, the Special Collections Research Center, and the Genet Costume Collection and Gallery at The Warehouse provide major settings for education and training, which is enhanced with projects at different off-campus venues around the city and the region. Students gain additional training and experience through internships at museums and cultural institutions throughout the United States and abroad. We strongly believe that this combination of academic and professional training prepares our students for their chosen fields and sustains them throughout their careers.

An important aspect of the program is the availability of courses in a wide variety of related fields, including the Department of Art, the Department of Transmedia, the Department of Art and Music Histories, the School of Education, the School of Information Studies, the Maxwell School of Citizenship, the Newhouse School of Public Communications, and the Department of Anthropology at Syracuse University. A significant number of students pursue concurrent or sequential degrees in such fields as art history, anthropology, arts administration, and information studies. However, matriculated status in the graduate program in museum studies does not guarantee admission to other graduate programs.

Students also have opportunities to study away from Syracuse by taking courses in New York City, Washington D.C., and Los Angeles, where they visit significant museums, galleries and contemporary artist studios to hear from prominent artists, curators, and gallery owners, many of whom are accomplished SU alumni.

The faculty is composed of working professionals from the University and the local museum community. They bring a wide range of expertise and experience to students in the program. Faculty and staff organize field trips to museums and conferences and bring professionals to campus as visiting speakers.

### **Admission**

Applicants must have at least a 3.35 average (4.0=A) in the major field and an overall average of no less than 3.0. The Graduate Record Examination (GRE) is highly recommended. (Graduate students from non-visual arts disciplines who are seeking concurrent degrees are encouraged to discuss their backgrounds and their programs of study with the graduate director.)

The M.A. degree requires a minimum one-year residency and 33 credits, 27 of which must be in museum studies. Students must pass a comprehensive examination in order to graduate.

### **Program Requirements**

Core requirements: 18-21 credits

#### **MUS 503 - Introduction to Museum Studies 3 credit(s)**

#### **MUS 506 - Introduction to Curatorship 3 credit(s)**

#### **MUS 603 - Practicum I 3 credit(s)**

#### **MUS 604 - Practicum II 3 credit(s)**

#### **MUS 607 - Collections Management 3 credit(s)**

### **MUS 670 - Experience Credit 1-6 credit(s)**

Concentration Requirements: 4 credits

(Minimum of two, one of which may be selected from courses offered as MUS 600 - Selected Topics)

#### **MUS 600 - Selected Topics 1-6 credit(s)** Print History and Processes

#### **MUS 703 - Advanced Curatorship 3 credit(s)**

#### **MUS 708 - Public Learning in Museums 3 credit(s)**

#### **MUS 709 - Museum Management 3 credit(s)**

#### **MUS 712 - Museum Development 3 credit(s)**

General Academic or Studio Electives: 6-9 credits

(at least 3 credits must be in museum studies)

Completion Requirement: 0 credits

Comprehensive examination 0 cr.

Total Credits Required: 33

Degree Awarded: MA in Museum Studies

## **Painting, MFA**

### **Contact**

Kevin Larmon, Department of Art  
102 Shaffer Art Building, 315-443-4613,  
klarmon@syr.edu

### **Faculty**

Sharon Gold, Andrew Havenhand, Kevin Larmon,  
Jerome P. Witkin, Stephen Zaima

### **Description**

M.F.A. candidates in painting and drawing have excellent facilities in which to pursue independent work and research. Each student has a studio space and is encouraged to be self-motivated. Students are regularly visited in their studio for critiques by professors each semester. In addition, informal guidance is given by prominent visiting artists and critics during the academic year.

Students work in a variety of contemporary styles

## GRADUATE COURSE CATALOG

and media. The faculty is large and diverse; their styles and approaches to painting run the gamut of contemporary expression, and their exhibition records are extensive.

The painting and drawing program has an impressive tradition of excellence, more than 100 years in the making. The student body includes many international students, providing a mix of interests, backgrounds, and cultures.

The program requires a 60-credit degree with a three-year residency and is accompanied by a final research paper and M.F.A. exhibition. Many candidates receive teaching assistantships, fellowships, or remitted tuition assistance.

Alumni include Bradley Walker Tomlin, Robert Goodnough, Sidney Tillim, Charles Hinman, Peter Plagens, Sol Lewitt, Elizabeth Murray, and Rebecca Purdum.

### Program Requirements

Major Studio: 24 credits

**PTG 660 - Painting, Graduate 1-12 credit(s)** 12 credits

**PTG 760 - Painting, Graduate 1-12 credit(s)** 12 credits

Studio Electives: 12 credits

Art History or related academics: 12 credits

Free Electives: 6 credits

Graduate Seminar: 3 credits

**ART 702 - Graduate Seminar 3 credit(s)**

Final Presentation: 3 credits

**PTG 996 - Final Presentation 3 credit(s)**

Total Credits Required: 60

Length of residency: 3 years

Degree Awarded: MFA in Painting

### Printmaking, MFA

### Contact

Dusty Herbig, Department of Art  
ComArt Building, 315-443-3700, dtherbig@syr.edu

## Faculty

Holly Greenberg, Dusty Herbig

### Description

Contemporary practices in printmaking are embraced in our master of fine arts (M.F.A.) degree program. A base in the traditional methods of print media lays the groundwork for a jumping off point into experimental, digital, installation, interactive, collaborative and innovative art practices. Our M.F.A. candidates enter the program with a range of interests related to the medium of print and then commit to an intense period of study towards the goal of creating a cohesive and technically sophisticated body of work which can be discussed in the context of contemporary art issues.

Our faculty are working artists with an expansive knowledge of contemporary and traditional printmaking methods. Additionally you will have the opportunity to work closely with our many visiting artists, meet for individual studio critiques and work side-by-side with them in creating limited edition prints. Recent guest artists include: Adriane Herman, John Hitchcock, Sean StarWars, Chris Johanson, Michael Barnes, Jack Damer, Michael Krueger and Kathan Brown.

Our fully ventilated 6,400 sq. ft. facility includes 6 etching and lithography presses ranging in size up to 40" x 72", a separate ventilated acid and solvent clean-up room, separate studio spaces for graduate and undergraduate majors, a hand papermaking lab with 1 lb Voith Hollander beater, typography lab with Vandercook, table top and full size Platen presses plus wood and metal type including Goudy originals, and a computer lab and resource library. Additionally the facility offers a separate state of the art serigraphy studio equipped with a 36" x 48" Douthitt vacuum exposure table, back lit washout sink, 2 vacuum printing stations and 16 printing stations.

### Program Requirements

Major Studio: 24 credits

Studio Electives: 12 credits

Art History or related academics: 12 credits

Free Electives: 6 credits

Graduate Seminar: 3 credits

**ART 702 - Graduate Seminar 3 credit(s)**

Final Presentation: 3 credits

**PRT 996 - Final Presentation 3 credit(s)**

Total Credits Required: 60

Length of Residency: 3 years

Degree Awarded: MFA in Printmaking

### Sculpture, MFA

### Contact

Jude Lewis, Department of Art  
ComArt Building, 315-443-3700, jllewis@syr.edu

### Faculty

Stephanie James, Sam Van Aken, Robert Wysocki

### Description

Students enrolled in the M.F.A. sculpture program pursue individual creative research and artistic production, guided with courses in graduate critique, seminars, and independent coursework with faculty. Opportunities are provided for working in traditional and contemporary media.

The spacious facilities consist of dedicated workshops for such processes as metal casting, fabrication, and welding; wood and stone carving; clay; plaster; resins; plastic; and a state-of-the-art wood workshop, among others. Ample workspaces for assembly; project spaces dedicated to installation and performance; gallery spaces for student exhibitions; outdoor casting and large-scale fabrication capabilities; and private studios are provided.

Graduate studies in sculpture are enhanced by an extensive visiting artist, critics and curator program. M.F.A. candidates have the opportunity to have close contact with the artists through lectures and individual studio critiques.

### Program Requirements

Major Studio: 24 credits

**SCU 660 - Sculpture, Research Problems 1-12 credit(s)** 12 credits

**SCU 760 - Sculpture, Research Problems 1-12 credit(s)** 12 credits

Studio Electives: 12 credits

Art History or Related Academics: 12 credits

Free Electives: 6 credits

Graduate Seminar: 3 credits

**ART 702 - Graduate Seminar 3 credit(s)**

Final Presentation: 3 credits

**SCU 996 - Final Presentation 3 credit(s)**

Total Credits Required: 60

Degree Awarded: MFA in  
Sculpture

## Studio Arts

## Contact

Stephanie James, Director  
102B Shaffer Art Building  
315-443-3012, sljames@syr.edu

## Faculty

Barbara Walter, Kevin Larmon, Andrew Havenhand,  
Peter Beasacker, Dusty Herbig, Sam Van Aken,  
Joanna Spitzner, Juan Juarez

## Description

The Master of Fine Arts program in Studio Arts prepares students with diverse studio backgrounds to become confident arts practitioners that can make a difference in the world through applying their skills and knowledge to find and solve real problems. Students are encouraged to celebrate ideas and creative risk-taking through their chosen studio focus but also through the inter-disciplinary and collaborative activity taking the students beyond the obvious, as they meet the fresh, often unpredictable and certainly challenging possibilities that are offered as they test, and interrogate, make and confidently reflect on their practice. In an intensive program of seminars and critiques students will engage in theoretical and contextual understanding supporting them to launch their careers in the professional arena.

Students may complete the award of Master of Fine Arts in Studio Arts on a 2-year or 3-year program. On the 2-year program students may take advantage of the Maymester summer program to gain credits. Students also have the opportunity to engage in the 1-year graduate residency program after completion of a minimum of 51 credits.

## Drama

*This page is currently under revision.*

Timothy J. Bond, Producing Artistic Director,  
Department of Drama and Syracuse Stage

Ralph Zito, Chair  
820 East Genesee Street, 315-443-2669

For further information, contact the Office of Student Services, 204 Crouse College.

## Communication and Rhetorical Studies

### Contact

Charles Morris, Chair  
100 Sims Hall, 315-443-2308  
<http://vpa.syr.edu/crs>

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.

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.



## GRADUATE COURSE CATALOG

### Combined Degree

## Communication and Rhetorical Studies, MS/MA

### Contact

Charles Morris III, Department of Communication and Rhetorical Studies  
100 Sims Hall, 315-443-2308, cemorris@syr.edu

### Faculty

Richard W. Buttny, Dana Cloud, Katie Feyh, Jeffrey Good, Lynn Greenky, Diane Grimes, Rachel Hall, Kenneth M. Johnson, Amos Kiewe, Charles Morris III, Kendall Phillips, Amardo Rodriguez

### Description

The M.A./M.S. in communication and rhetorical studies requires 33 credits beyond the B.S. or B.A. degree. 24 credits must be taken in the Department of Communication and Rhetorical Studies, and up to 9 may be taken in areas outside the department. Students qualified to do so are encouraged to take courses outside the major area. All programs include a common core. No more than 6 credits may be earned in selected readings, experience credit, and independent study courses. At least 9 credits must be 600-level or above. Candidates may choose to write a thesis for 6 credits or take the entire 33 credits in coursework and a comprehensive examination on this work. Successfully completed theses will be archived in the library for patrons' use.

The Department of Communication and Rhetorical Studies offers the student a general background in theory, research methods, and context areas that include the following such areas as language and social interaction and rhetorical theory and criticism. Programs serve students with a variety of intellectual interests and career objectives.

The department 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 abilities to adapt and respond to the demands of the communication situations they encounter and create.

### Admission

The Graduate Record Examination (GRE) is recommended for admission into the

Department of Communication and Rhetorical Studies. Admission into the program as well as graduate assistantship and scholarship awards are determined by the Department Chair and Graduate Coordinator.

### Program Requirements

#### Required Courses

**CRS 601 - Proseminar in Communication 3 credit(s)**

**CRS 603 - Contemporary Theories of Rhetoric 3 credit(s)**

#### Electives

**CRS 514 - Language & Meaning 3 credit(s)**

**CRS 535 - Communication & Community 3 credit(s)**

**CRS 567 - Rhetoric and Philosophy 3 credit(s)**

**CRS 568 - Rhetoric of Social Change 3 credit(s)**

**CRS 602 - Empericial Research in Social Communication 3 credit(s)**

**CRS 605 - Communication and Cosmopolitan Studies 3 credit(s)**

**CRS 614 - Communication, Power & Gender 3 credit(s)**

**CRS 630 - Intercultural Communication 3 credit(s)**

Total Credits Required: 33 beyond the BS or BA degree

Degree Awarded: MS/MA in Communication and Rhetorical Studies

### Certificate of Advanced Study

## Cultural Heritage Preservation, CAS

### Contact:

Jill Hurst-Wahl, Program Director, 208 Hinds Hall,  
(315) 443-1070, igrad@syr.edu

### Website:

Cultural Heritage Preservation

### Overview:

The Certificate of Advanced Study in Cultural Heritage Preservation is a 15-credit hour, graduate-level certificate designed for students currently pursuing another graduate degree or as post-baccalaureate work. This program is only offered to campus-based students. Housed in the iSchool, the program is an interdisciplinary collaboration between Information Studies, Anthropology, and Museum Studies.

Recipients of the Cultural Heritage certificate are provided with an interdisciplinary grounding in the preservation of cultural heritage. This includes opportunities to focus on such areas as:

the application of digital approaches to heritage preservation;

the basics of historic site preservation;

the management and interpretation of cultural resources; and

the collection, preservation, and curation of archeological artifacts, archival materials, ethnographic data, and museum collections.

The certificate program is intended to prepare students to work with organizations such as libraries, museums, National Parks, and State and local agencies in preserving cultural resources.

The Certificate of Advanced Study in Cultural Heritage Preservation requires the completion of 15 credits: 3 units of required courses, 6-9 units of elective courses, 3-6 units of internships.

Because students enter the program with different educational and experiential backgrounds, they will work with program advisors to determine the most appropriate ratio of coursework to internships.

### Curriculum:

#### I. Required Courses (3 credits)

**IST 622 - Introduction to Preservation of Cultural Heritage 3 credit(s)**

#### II. Electives (6-9 credits)

Students will complete three of the following elective courses. At least two of the three courses must be from outside of the student's primary program of study:

**ANT 644 - Laboratory Analysis in Archaeology 3 credit(s)**

**ANT 682 - Life Histories/Narratives 3 credit(s)**

**ANT 645 - Public Policy and Archaeology 3 credit(s)**

ANT 461 - Museums and Native Americas 3 credit(s)

## GRADUATE COURSE CATALOG

**IST 616 - Information Resources:  
Organization and Access 3 credit(s)**

**IST 624 - Preservation of Library and  
Archival Collections 3 credit(s)**

**IST 628 - Organization/Management of  
Archival Collections 3 credit(s)**

**IST 632 - Management and Organization of  
Special Collections 3 credit(s)**

**IST 677 - Creating, Managing, and  
Preserving Digital Assets 3 credit(s)**

**IST 715 - LAMS: Libraries, Archives,  
Museums 3 credit(s)**

**MUS 500 - Selected Topics 1-6 credit(s)**

**MUS 506 - Introduction to Curatorship 3  
credit(s)**

**MUS 607 - Collections Management 3  
credit(s)**

**MUS 703 - Advanced Curatorship 3  
credit(s)**

### Other Courses for Elective Credit(s)

With consent of program advisors, a student may petition to substitute other courses for elective credit towards the CAS.

### III. Internship (3-6 credits)

Two 150-hour internships are also required.

Students will work at an institution, agency, or community organization for two 150-hour internships.

These may be at the same organization or at two different organizations, but should be completed in different semesters. Students will report to both an on-site supervisor and a faculty internship advisor during the process, and the on-site supervisor will evaluate the student's activities at the end of each semester.

The faculty internship advisor can be a faculty member from Information Studies, Museum Studies, or Anthropology. The internships may be taken either as ANT 670, MUS 670, or IST 971, or upon approval of the appropriate program advisor. By petition, the student may receive 150 hours of credit upon completion.

### IV. Summation

In their final semester students will:

Bring together documentation (e.g., papers, internship projects, presentations) into a portfolio that will adequately present their accomplishments and contributions during their course of study and internship experiences and;

Write a paper reflecting on their education and preparation for a professional position.

This summation is a requirement for the completion of the CAS degree.

## Setnor School of Music

Martha L. Sutter, Interim Director  
215 Crouse College, 315-443-5892  
<http://vpa.syr.edu/music>

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.

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.

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.

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.

### Master's

## Conducting, MMus

### Contact

Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, [sheyman@syr.edu](mailto:sheyman@syr.edu)

### Faculty

Jose "Peppie" Calvar, Bradley Ethington, James Tapia, John Warren

## Description

The M.Mus. degree program in conducting offers three areas of specialty: winds/percussion, vocal, and strings. Students enter in one specific area but will also study in the other areas to create a comprehensive degree.

All graduate students are required to complete a core sequence of courses in research, music history, and music theory (a total of nine credits). In general most graduate students are required to complete 34 to 36 graduate credits beyond the baccalaureate and normally four semesters in residence. Similar academic patterns and admissions procedures comprise each program for the M.Mus.: 8 credits in the major, 3 credits in music history, 3 credits in music theory, 3 credits in research, 2 credits in recitals, and the remainder to be taken in special courses for various emphases and in music literature, music electives, or free electives (varying according to emphases).

The program promotes the attainment of high levels of performance and a solid grasp of general musical knowledge, as demonstrated by the following: a terminal requirement of two graduate-level recitals. Written and oral comprehensive examinations must be completed during the final semester.

## GRADUATE COURSE CATALOG

Convocation attendance and ensemble participation are required for all full-time graduate students.

### Program Requirements

#### Required Courses

**MUE 615 - Introduction to Research in Music 3 credit(s)** (core)

**MTC 646 - Advanced Tonal Analysis 3 credit(s)** (core)

MHL XXX Music History (core) 3 credit(s)

Major 8 credit(s)

Recitals 2 credit(s)

Electives 15-16 credit(s)

\*Examples of Special courses for various emphases might include the following:

**MHL 535 - Orchestral Repertoire: 1600-1800 2 credit(s)** (String emphasis)

**ENC 520 - Chamber Music/Piana 0-1 credit(s)** (Piano or Voice emphasis)

Total Credits Required: 34

Degree Awarded: M.M. in Conducting

### Music Composition, MMus

#### Contact

Nicolas Scherzinger, Chair, Department of Music Composition, Theory, History  
120B Crouse College, 315-443-3907, nscherzi@syr.edu

#### Faculty

Joseph Downing, Daniel Godfrey, John Laverty, Nicolas Scherzinger, Andrew Waggoner

#### Description

The Setnor School of Music offers a master of music (M.M.) degree program in composition. You will study privately with our prestigious faculty and also meet weekly in the Composer's Symposium to discuss current issues and visit with guest composers.

All graduate students are required to complete a core sequence of courses in research, music history, and music theory (a total of nine credits).

In general most graduate students are required to complete 34 to 36 graduate credits beyond the baccalaureate and normally four semesters in residence. Similar academic patterns and admissions procedures comprise each program for the M.Mus.: 8 credits in the major, 3 credits in music history, 3 credits in music theory, 3 credits in research, 2 credits in recitals, and the remainder to be taken in special courses for various emphases and in music literature, music electives, or free electives (varying according to emphases).

The program promotes the attainment of high levels of performance and a solid grasp of general musical knowledge, as demonstrated by the following: a terminal requirement of at least one large-scale composition and the presentation of one public recital of selected compositions. Written and oral comprehensive examinations must be completed during the final semester. Convocation attendance and ensemble participation are required for all full-time graduate students.

### Program Requirements

#### Required Courses

**MUE 615 - Introduction to Research in Music 3 credit(s)** (core)

**MTC 646 - Advanced Tonal Analysis 3 credit(s)** (core)

MHL XXX Music History (core) 3 credit(s)

Major 8 credit(s)

Recital 1 credit(s)

Special courses 4 credit(s) \*

Music literature, music electives and free electives (varying with emphases) 12 credit(s)

\*Examples of Special courses for various emphases might include the following:

**MHL 535 - Orchestral Repertoire: 1600-1800 2 credit(s)** (String emphasis)

**ENC 520 - Chamber Music/Piana 0-1 credit(s)** (Piano or Voice emphasis)

Total Credits Required: 34

Degree awarded: M.M. in Music Composition

### Organ, MMus

#### Contact

Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

#### Faculty

Anne Laver

#### Description

The M.Mus. degree program in performance is offered with the following emphases: piano, organ, strings, wind instruments, percussion, or voice. All graduate students are required to complete a core sequence of courses in research, music history, and music theory (a total of nine credits).

In general most graduate students are required to complete 34 to 36 graduate credits beyond the baccalaureate and normally four semesters in residence. Similar academic patterns and admissions procedures comprise each program for the M.Mus.: 8 credits in the major, 3 credits in music history, 3 credits in music theory, 3 credits in research, 2 credits in recitals, and the remainder to be taken in special courses for various emphases and in music literature, music electives, or free electives (varying according to emphases).

The program promotes the attainment of high levels of performance and a solid grasp of general musical knowledge, as demonstrated by the following: a two-part terminal project for the performance degree in which the candidate performs in two major public appearances. One is a solo recital; the second may be another solo recital, an ensemble recital, a performance of a major concerto with orchestra, or a lecture recital on a subject relevant to the student's major instrument. Written and oral comprehensive examinations must be completed during the final semester. Convocation attendance and ensemble participation are required for all full-time graduate students

### Program Requirements

#### Required Courses

**MUE 615 - Introduction to Research in Music 3 credit(s)** (core)

**MTC 646 - Advanced Tonal Analysis 3 credit(s)** (core)

MHL XXX Music History (core) 3 credit(s)

Major 8 credit(s)

Recitals 2 credit(s)

Special courses 4 credit(s) \*

Music literature, music electives and free electives (varying with emphases) 11-12 credit(s)

## GRADUATE COURSE CATALOG

\*Examples of Special courses for various emphases might include the following:

**MHL 535 - Orchestral Repertoire: 1600-1800 2 credit(s)** (String emphasis)

**ENC 520 - Chamber Music/Piana 0-1 credit(s)** (Piano or Voice emphasis)

Total Credits Required: 34

Degree Awarded: M.M. in Organ

### Percussion, MMus

### Contact

Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

### Description

The M.Mus. degree program in performance is offered with the following emphases: piano, organ, strings, wind instruments, percussion, or voice. All graduate students are required to complete a core sequence of courses in research, music history, and music theory (a total of nine credits). In general most graduate students are required to complete 34 to 36 graduate credits beyond the baccalaureate and normally four semesters in residence. Similar academic patterns and admissions procedures comprise each program for the M.Mus.: 8 credits in the major, 3 credits in music history, 3 credits in music theory, 3 credits in research, 2 credits in recitals, and the remainder to be taken in special courses for various emphases and in music literature, music electives, or free electives (varying according to emphases).

The program promotes the attainment of high levels of performance and a solid grasp of general musical knowledge, as demonstrated by the following: a two-part terminal project for the performance degree in which the candidate performs in two major public appearances. One is a solo recital; the second may be another solo recital, an ensemble recital, a performance of a major concerto with orchestra, or a lecture recital on a subject relevant to the student's major instrument. Written and oral comprehensive examinations must be completed during the final semester. Convocation attendance and ensemble participation are required for all full-time graduate students.

### Program Requirements

### Required Courses

**MUE 615 - Introduction to Research in Music 3 credit(s)** (core)

**MTC 646 - Advanced Tonal Analysis 3 credit(s)** (core)

MHL XXX Music History (core) 3 credit(s)

Major 8 credit(s)

Recitals 2 credit(s)

Special courses 4 credit(s) \*

Music literature, music electives and free electives (varying with emphases) 11-12 credit(s)

\*Examples of Special courses for various emphases might include the following:

**MHL 535 - Orchestral Repertoire: 1600-1800 2 credit(s)** (String emphasis)

**ENC 520 - Chamber Music/Piana 0-1 credit(s)** (Piano or Voice emphasis)

Total Credits Required: 34

Degree Awarded: M.M. in Percussion

### Piano, MMus

### Contact

Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

### Faculty

Steven Heyman, Fred Karpoff, Thomaida Trebicka

### Description

The M.Mus. degree program in performance is offered with the following emphases: piano, organ, strings, wind instruments, percussion, or voice.

All graduate students are required to complete a core sequence of courses in research, music history, and music theory (a total of nine credits). In general most graduate students are required to complete 34 to 36 graduate credits beyond the baccalaureate and normally four semesters in residence. Similar academic patterns and admissions procedures comprise each program for the M.Mus.: 8 credits in the major, 3 credits in music history, 3 credits in music theory, 3 credits in research, 2 credits in recitals, and the

remainder to be taken in special courses for various emphases and in music literature, music electives, or free electives (varying according to emphases).

The program promotes the attainment of high levels of performance and a solid grasp of general musical knowledge, as demonstrated by the following: a two-part terminal project for the performance degree in which the candidate performs in two major public appearances. One is a solo recital; the second may be another solo recital, an ensemble recital, a performance of a major concerto with orchestra, or a lecture recital on a subject relevant to the student's major instrument. Piano majors whose emphasis is in Piano Ensemble Arts are required to collaborate in at least three recitals per semester. Written and oral comprehensive examinations must be completed during the final semester. Convocation attendance and ensemble participation are required for all fulltime graduate students.

### Program Requirements

### Required Courses

**MUE 615 - Introduction to Research in Music 3 credit(s)** (core)

**MTC 646 - Advanced Tonal Analysis 3 credit(s)** (core)

MHL XXX Music History (core) 3 credit(s)

Major 8 credit(s)

Recitals 2 credit(s)

Special courses 4 credit(s) \*

Music literature, music electives and free electives (varying with emphases) 11-12 credit(s)

\*Examples of Special courses for various emphases might include the following:

**MHL 535 - Orchestral Repertoire: 1600-1800 2 credit(s)** (String emphasis)

**ENC 520 - Chamber Music/Piana 0-1 credit(s)** (Piano or Voice emphasis)

Total Credits Required: 34

Degree Awarded: M.M. in Piano

### Strings, MMus

### Contact

Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

# GRADUATE COURSE CATALOG

syr.edu

## Description

The M.Mus. degree program in performance is offered with the following emphases: piano, organ, strings, wind instruments, percussion, or voice. All graduate students are required to complete a core sequence of courses in research, music history, and music theory (a total of nine credits). In general most graduate students are required to complete 34 to 36 graduate credits beyond the baccalaureate and normally four semesters in residence. Similar academic patterns and admissions procedures comprise each program for the M.Mus.: 8 credits in the major, 3 credits in music history, 3 credits in music theory, 3 credits in research, 2 credits in recitals, and the remainder to be taken in special courses for various emphases and in music literature, music electives, or free electives (varying according to emphases).

The program promotes the attainment of high levels of performance and a solid grasp of general musical knowledge, as demonstrated by the following: a two-part terminal project for the performance degree in which the candidate performs in two major public appearances. One is a solo recital; the second may be another solo recital, an ensemble recital, a performance of a major concerto with orchestra, or a lecture recital on a subject relevant to the student's major instrument. Written and oral comprehensive examinations must be completed during the final semester. Convocation attendance and ensemble participation are required for all full-time graduate students.

## Program Requirements

### Required Courses

**MUE 615 - Introduction to Research in Music 3 credit(s)**

**MTC 646 - Advanced Tonal Analysis 3 credit(s)**

MHL XXX Music History (core) 3 credit(s)

Major 8 credit(s)

Recitals 2 credit(s)

Special courses 4 credit(s) \*

Music literature, music electives and free electives (varying with emphases) 11-12 credit(s)

\*Examples of Special courses for various emphases might include the following:

**MHL 535 - Orchestral Repertoire: 1600-1800 2 credit(s)** (String emphasis)

**ENC 520 - Chamber Music/Piano 0-1 credit(s)** (Piano or Voice emphasis)

Total Credits Required: 34

Degree Awarded: M.M. in Strings

## Voice Pedagogy, MMus

## Contact

Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

## Faculty

Janet Brown, Eric Johnson, Kathleen Roland-Silverstein, Julianna Sabol

## Description

The Master of Music in Voice Pedagogy is offered through the Setnor School of Music, part of the College of Visual and Performing Arts at Syracuse University. It is a degree designed to meet the needs of the student who has an undergraduate degree in Music with voice as the main instrument, and who desires to pursue a career as a voice instructor, either in an academic setting or a private one. This degree will develop the student into a knowledgeable teacher of singing while enhancing the student's own development as a singer, offering an intensive curriculum in voice pedagogy, pedagogical issues, repertoire, diction, career planning methods, voice study, performance, and experience in teaching. In addition, students will have access to the most current voice science laboratory equipment in collaboration with the Department of Communication Sciences and Disorders, part of the College of Arts & Sciences at Syracuse University.

## Admission

Students admitted to the Master of Music in Voice Pedagogy must hold a Bachelor of Music, Bachelor of Arts in Music or Bachelor of Science in Music with Voice being the principal performance area. At least six semesters of voice study within that Bachelor degree are required, with a minimum 3.0 GPA.

Acceptance into the Setnor School of Music is via a graduate music audition.

Admission to the Syracuse University Graduate School.

Admitted students will take diagnostic

examinations in Music Theory/Aural Skills, Music History, and diction of French, German and Italian. Remedial course work or passing the test upon a second sitting is required if these examinations reveal deficiencies in any of these areas.

## Program Requirements

All course work must be chosen from 500-level courses or higher, with no less than half of the course work chosen from 600-level courses or higher. A lecture recital and capstone project must be completed as well as an oral examination in the last semester of study. A student completing this degree will be knowledgeable to instruct in classical vocal technique and literature in either a private setting or in higher education.

Major Field/Specialization Area:  
11 credits

**MHL 547 - Vocal Literature II 3 credit(s)**

**PDG 519 - Vocal Pedagogy 2 credit(s)**

**PDG 522 - Vocal Pedagogy II 2 credit(s)**

**AMC 547 - Advanced Diction for Singers 2 credit(s)**

**VOC 625 - Grad Voc Prfrmnc Sem I 1 credit(s)**

Supportive Studies in Music  
(Core): 12 credits

MHL Graduate Music History Elective (3 credits)

**MUE 615 - Introduction to Research in Music 3 credit(s)**

**MTC 646 - Advanced Tonal Analysis 3 credit(s)**

**AMC 799 - Capstone Project 3 credit(s)**

**MHL 671 - Weekly Student Convocation Graduate 0 credit(s)**

**MHL 672 - Weekly Student Convocation Graduate 0 credit(s)**

**MHL 771 - Weekly Student Convocation Graduate 0 credit(s)**

**MHL 772 - Weekly Student Convocation Graduate 0 credit(s)**

Studio Emphasis: 9 credits

**VOC 615 - Voice/Music Majors 1-6 credit(s)**

**VOC 616 - Voice/Music Major 1-6 credit(s)**

**VOC 715 - Voice/Music Major 1-6 credit(s)**

**VOC 716 - Voice/Music Majors 1-6**

## GRADUATE COURSE CATALOG

### credit(s)

#### PER 996 - Lecture Recital 0-1 credit(s)

#### Ensemble Participation: 0 credits

The student in the MM Voice Pedagogy degree should have two semesters of Ensemble participation.

#### Transfer Credit:

A maximum of 9 graduate-level credits can be transferred from another institution.

#### Total Credits Required: 32

#### Degree Awarded: M.M. in Voice Pedagogy

### Voice, MMus

### Contact

Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

### Faculty

Janet Brown, Eric Johnson, Kathleen Roland-Silverstein, Julianna Sabol

### Description

The M.Mus. degree program in performance is offered with the following emphases: keyboard, keyboard accompaniment, strings, voice, woodwinds, brass, or percussion.

All graduate students are required to complete a core sequence of courses in research, music history, and music theory (a total of nine credits). In general most graduate students are required to complete 34 to 36 graduate credits beyond the baccalaureate and normally four semesters in residence. Similar academic patterns and admissions procedures comprise each program for the M.Mus.: 8 credits in the major, 3 credits in music history, 3 credits in music theory, 3 credits in research, 2 credits in recitals, and the remainder to be taken in special courses for various emphases and in music literature, music electives, or free electives (varying according to emphases).

The program promotes the attainment of high levels of performance and a solid grasp of general musical knowledge, as demonstrated by the following: a two-part terminal project for the performance degree in which the candidate performs in two major public appearances. One

is a solo recital; the second may be another solo recital, an ensemble recital, a performance of a major concerto with orchestra, or a lecture recital on a subject relevant to the student's major instrument. Written and oral comprehensive examinations must be completed during the final semester. Convocation attendance and ensemble participation are required for all full-time graduate students.

### Major Requirements

#### MUE 615 - Introduction to Research in Music 3 credit(s)

#### MTC 646 - Advanced Tonal Analysis 3 credit(s)

MHL xxx Music History (core) 3 credit(s)

Major 8 credit(s)

Recitals 2 credit(s)

Special courses 4 credit(s) \*

Music literature, music electives and free electives (varying with emphases) 11-12 credit(s)

\*Examples of Special courses for various emphases might include the following:

#### MHL 535 - Orchestral Repertoire: 1600-1800 2 credit(s) (String emphasis)

#### ENC 520 - Chamber Music/Piana 0-1 credit(s) (Piano or Voice emphasis)

Total Minimum Credits Required: 34

#### Degree Awarded: M.M. in Voice

### Wind Instruments, MMus

### Contact

Steven Heyman, Chair, Department of Applied Music and Performance  
310 Crouse College, 315-443-1638, sheyman@syr.edu

### Description

The M.Mus. degree program in performance is offered with the following emphases: piano, organ, strings, wind instruments, percussion, or voice. All graduate students are required to complete a core sequence of courses in research, music history, and music theory (a total of nine credits). In general most graduate students are required to complete 34 to 36 graduate credits beyond the baccalaureate and normally four semesters

in residence. Similar academic patterns and admissions procedures comprise each program for the M.Mus.: 8 credits in the major, 3 credits in music history, 3 credits in music theory, 3 credits in research, 2 credits in recitals, and the remainder to be taken in special courses for various emphases and in music literature, music electives, or free electives (varying according to emphases).

The program promotes the attainment of high levels of performance and a solid grasp of general musical knowledge, as demonstrated by the following: a two-part terminal project for the performance degree in which the candidate performs in two major public appearances. One is a solo recital; the second may be another solo recital, an ensemble recital, a performance of a major concerto with orchestra, or a lecture recital on a subject relevant to the student's major instrument. Written and oral comprehensive examinations must be completed during the final semester. Convocation attendance and ensemble participation are required for all full-time graduate students.

### Program Requirements

#### Required Courses

#### MUE 615 - Introduction to Research in Music 3 credit(s)

#### MTC 646 - Advanced Tonal Analysis 3 credit(s)

MHL XXX Music History (core) 3 credit(s)

Major 8 credit(s)

Recitals 2 credit(s)

Special courses 4 credit(s) \*

Music literature, music electives and free electives (varying with emphases) 11 credit(s)

\*Examples of Special courses for various emphases might include the following:

#### MHL 535 - Orchestral Repertoire: 1600-1800 2 credit(s) (String emphasis)

#### ENC 520 - Chamber Music/Piana 0-1 credit(s) (Piano or Voice emphasis)

Total Minimum Credits Required: 34

Total Credits Required: 34

#### Degree Awarded: M.M. in Wind Instruments

## School of Art and Design

### Advertising Design

#### ADD 540 - Offset Printing

##### *School of Art and Design*

3 credit(s) Irregularly

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

#### ADD 640 - Professional Practices/Ad Des

##### *School of Art and Design*

1-12 credit(s) Irregularly

Advanced development of advertising for print and broadcast media, in small groups. Includes market analysis, strategic planning, conceptualization, and preparation of comprehensive layouts and story boards for advertising campaigns.

#### ADD 644 - TV Commercial Production

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring

Double Numbered with: ADD 444

Video techniques in the production of advertising commercials. Major emphasis on computer video editing. Introduction to camera work and sound.

PREREQ: ADD 443

Repeatable 1 time(s), 3 credits maximum

#### ADD 740 - Ad Design Research Problems

##### *School of Art and Design*

1-12 credit(s) Upon sufficient interest

Individual instruction in specialized areas of advertising design, based on professional practices in development of advertising campaigns for print and broadcast media.

PREREQ: ADD 640

#### ADD 996 - Final Presentation

##### *School of Art and Design*

3 credit(s) Irregularly

Final presentation accompanied by written statement culminating in oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.

#### ADD 997 - Masters Thesis

##### *School of Art and Design*

0-6 credit(s) Irregularly

Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## Art Education

### AED 510 - Special Problems in Art Ed

##### *School of Art and Design*

1-6 credit(s) At least 1x fall or spring

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

##### *School of Art and Design*

3 credit(s) Irregularly

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

##### *School of Art and Design*

3 credit(s) Irregularly

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

##### *School of Art and Design*

3 credit(s) Irregularly

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

##### *School of Art and Design*

3 credit(s) Irregularly

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

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring

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.

### AED 612 - Creativity & Its Cultivation

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring

How do we recognize creativity? Who are the innovative individuals? Seminar workshop identifies essential criteria to discover and experience levels of creative behavior. Multisensory nature of imagination and its cultural significance. Students experiment in perceptual activities leading to design of aesthetic and educational strategies.

### AED 616 - Apprenticeship/Art Supervision

##### *School of Art and Design*

3 credit(s) Upon sufficient interest

Primarily for graduate students with teaching experience who are interested in the practice of supervision in public schools. Current art practices. States' certification requirements. Curriculum guides. In-service supervisory problems. Art workshops. Improvements of instruction. Selection, induction, supervision, and evaluation of teachers. Procedures for selecting and purchasing art materials and equipment.

### AED 617 - Philosophy & Foundations of Art Education Practice

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring

Double Numbered with: AED 317

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 618 - Seminar in Art Education

##### *School of Art and Design*

3 credit(s) Upon sufficient interest

Prevailing opinions concerning objectives, materials, and curriculum procedures in art education at various age levels. Variety of research requirements and procedures in the field.

### AED 621 - Making Meaning: Socially Responsible Arts & Design Practices

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring

Experiments with new approaches for making art, architecture and/or design when creative practice and arts & design education are undertaken as an avenue of social responsibility.

### AED 710 - Problems/Teacher As Artist

##### *School of Art and Design*

2-18 credit(s) Upon sufficient interest

## GRADUATE COURSE CATALOG

Technical problems in art education. Limited to students working toward master's degree in art education.  
Repeatable

### **AED 798 - Making Methodology: Exploring Arts-based Research**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
An in-depth exploration of arts-based research methodologies that emerge out of the natural affinity between research practice and artistic practice. Various methodologies will be applied to selected social, educational, and creative research problems.

### **AED 896 - Final Presentation**

#### ***School of Art and Design***

3 credit(s) Upon sufficient interest  
Final presentation accompanied by written statement, culminating in oral examination. Taken during final semester upon advisor's approval.

### **AED 990 - Independent Study**

#### ***School of Art and Design***

1-6 credit(s)  
Repeatable

## **Art Photography**

### **APH 561 - Art Photography: Contemporary Art and Photography**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
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**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
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**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
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.

### **APH 564 - Image/Sequence: Photo Book**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
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.

### **APH 565 - Art Photography: Performance Art**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
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.

### **APH 566 - Art Photography: Photography and Cinema**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
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.

### **APH 640 - Art Photography**

#### ***School of Art and Design***

3-12 credit(s) Upon sufficient interest  
Intensive workshop geared toward individual student requirements within the context of the development of an extended body of work. Individual and group critique.  
Repeatable

### **APH 740 - Art Photography**

#### ***School of Art and Design***

3-12 credit(s) Upon sufficient interest  
Intensive workshop geared toward individual student requirements within the context of the development of an extended body of creative work. Individual and group critiques used regularly.  
Repeatable

### **APH 996 - Final Presentation**

#### ***School of Art and Design***

3 credit(s) Every semester  
Written statement to accompany final project, culminating in oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.

### **APH 997 - Masters Thesis**

#### ***School of Art and Design***

1-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## **Art Video**

### **VID 510 - Video Art History**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Video art history from the 1960s including the fluxus and art and technology movements, early performance, image processing, installation, and socio-political explorations.

### **VID 610 - Video Research**

#### ***School of Art and Design***

3-9 credit(s) Upon sufficient interest  
Production of videotapes in the context of independent art related to concerns by individual. Crew experience required. Directed readings, group critiques with weekly meetings.

### **VID 613 - Advanced Post-Production Techniques**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Double Numbered with: VID 313  
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.

### **VID 710 - Video Research**

#### ***School of Art and Design***

3-12 credit(s) Upon sufficient interest  
Production of videotapes in the context of independent art related to concerns. Crew experience required. Directed readings, group critiques with weekly meetings.  
Repeatable

### **VID 996 - Final Presentation**

#### ***School of Art and Design***

3 credit(s) Every semester  
Written statement to accompany final project, culminating in oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.

### **VID 997 - Masters Thesis**

#### ***School of Art and Design***

0-6 credit(s) Every semester  
Formal master's thesis. Written document



## GRADUATE COURSE CATALOG

exhibiting substantive and original research. Planned under direction of major departmental advisor.

### Art

#### ART 500 - Selected Topics

##### *School of Art and Design*

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

#### ART 511 - Aesthetics,Advanced

##### *School of Art and Design*

3 credit(s) Upon sufficient interest  
An examination of the main theories of art, classical and contemporary.

#### ART 531 - Professional Practices in Visual Arts

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
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

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
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

##### *School of Art and Design*

3 credit(s) Every semester  
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

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Evolution of modernist trends in American art from 1890 to 1945. Some music and literary trends also featured.

#### ART 564 - Art in America II

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Continuation of ART 563. Covers period in American art from 1945 to 1975. Music and literature also covered.  
PREREQ: ART 563

#### ART 601 - Practicing in Public

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Crosslisted with: TRM 601  
This course brings together graduate students from across VPA for interdisciplinary graduate critique. Critique of exhibition of student work is led by a visiting artist, curator, and/or critic.  
Repeatable 2 time(s), 9 credits maximum

#### ART 610 - Topics in the History of Art

##### *School of Art and Design*

3 credit(s)  
Double Numbered with: ART 410  
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.  
Repeatable 1 time(s), 6 credits maximum

#### ART 631 - Art Nouveau Design and Architecture: Studies in Material Culture

##### *School of Art and Design*

4 credit(s)  
Double Numbered with: ART 431  
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.

#### ART 640 - Visiting Artist Lecture Series

##### *School of Art and Design*

1 credit(s) Every semester  
Double Numbered with: ART 340  
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.  
Repeatable 5 time(s), 6 credits maximum

#### ART 690 - Independent Study

##### *School of Art and Design*

1-6 credit(s) Upon sufficient interest  
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.  
Repeatable

#### ART 701 - Graduate Seminar

##### *School of Art and Design*

3 credit(s) Upon sufficient interest

#### ART 702 - Graduate Seminar

##### *School of Art and Design*

3 credit(s) Upon sufficient interest

### Computer Art

#### CAR 501 - Animation Workshop II

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
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

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
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

##### *School of Art and Design*

3 credit(s) Irregularly  
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.  
Repeatable 1 time(s), 6 credits maximum

#### CAR 530 - Special Topics in Computer Art

##### *School of Art and Design*

3-12 credit(s) Irregularly  
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.  
PREREQ: CAR 101  
Repeatable

#### CAR 630 - Computer Art Studio

##### *School of Art and Design*

3-12 credit(s) Every semester

## GRADUATE COURSE CATALOG

Research problems. Counseling and permission of advisor to determine area of study. Permission of Instructor.  
Repeatable

### **CAR 730 - Computer Art Studio**

#### ***School of Art and Design***

3-12 credit(s) Every semester  
Research in advanced problems in computer graphic art. Counseling and permission of advisor determines areas of study. Can be taken for a maximum of 12 credits.  
PREREQ: CAR 630  
Repeatable 3 time(s), 12 credits maximum

### **CAR 996 - Final Presentation**

#### ***School of Art and Design***

3 credit(s) Every semester  
Written statement to accompany final project, culminating in oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.

### **CAR 997 - Final Presentation**

#### ***School of Art and Design***

0-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## **Ceramics**

### **CER 520 - Raku Workshop**

#### ***School of Art and Design***

3 credit(s) Every semester  
Use of the Potter's wheel and production of various basic forms. Raku decorating and glazing techniques.  
Repeatable

### **CER 524 - Ceramic Research**

#### ***School of Art and Design***

1-6 credit(s) Every semester  
Advanced research.  
PREREQ: CER 423 AND 424

### **CER 527 - Ceramic Technology Research**

#### ***School of Art and Design***

1-6 credit(s) Odd academic yr e.g. 2007-8  
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.

### **CER 528 - Ceramic Technology Research**

#### ***School of Art and Design***

1-6 credit(s) Odd academic yr e.g. 2007-8  
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**

#### ***School of Art and Design***

1-6 credit(s) Upon sufficient interest  
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.

### **CER 620 - Ceramic Research Problems**

#### ***School of Art and Design***

1-12 credit(s) Upon sufficient interest  
Professional problems in ceramics; advanced study in technique and theory. Development of a consistent body of work. Permission of Instructor.  
Repeatable

### **CER 720 - Ceramic Research Problems**

#### ***School of Art and Design***

1-12 credit(s) Upon sufficient interest  
Continuation of CER 620. Permission of Instructor.  
Repeatable

### **CER 996 - Final Presentation**

#### ***School of Art and Design***

3 credit(s) Every semester  
Final presentation accompanied by written statement, culminating in oral examination for M.F.A. or M.I.D. degree. Taken during final semester upon advisor's approval.

### **CER 997 - Masters Thesis**

#### ***School of Art and Design***

1-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## **Communication Design**

### **CMD 550 - Communication Design Problems**

#### ***School of Art and Design***

1-6 credit(s) Every semester  
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.  
Repeatable

### **CMD 650 - Commun Design Research Problem**

#### ***School of Art and Design***

1-12 credit(s) Every semester  
Individual projects in selected areas of communications design. Emphasizes professional problems.  
Repeatable

## **Design**

### **DES 561 - Furniture and Light Workshop**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Design and development of experimental furniture and light fixtures. Experiences in prototype construction and industrial production methods.

### **DES 562 - Advanced Detailing and Construction**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Crosslisted with: ISD 654  
Advance detailing and construction techniques, documentation, shop drawings, computer-aided construction methods for fabrication.

### **DES 601 - Design Thinking and Strategies**

#### ***School of Art and Design***

3 credit(s) Only during the summer  
Introduction to design thinking as primary mode of solving problems to arrive at creative and alternative solutions.

### **DES 602 - Design Thinking & Ideas**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Double Numbered with: DES 302  
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 605 - Digital Design Techniques I**

#### ***School of Art and Design***

3 credit(s) Every semester  
Double Numbered with: DES 305  
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.

## GRADUATE COURSE CATALOG

### DES 606 - Digital Design Techniques II

#### *School of Art and Design*

3 credit(s) Every semester  
Double Numbered with: DES 306  
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 607 - Digital Design Techniques III

#### *School of Art and Design*

3 credit(s) Every semester  
Double Numbered with: DES 307  
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 641 - Fabrication Skills and Methods

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Double Numbered with: DES 341  
Introduction to wood and metal shop construction techniques for design fabrication. Additional work required of graduate students.

### DES 642 - Computer Generated Fabrication

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Double Numbered with: DES 342  
Introduction to computer generation construction techniques for design fabrication. Additional work required of graduate students.

### DES 647 - Design Research

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Literature and information search into the design of interior environments and their functional relation to humanistic, sociocultural, and structural factors to determine thesis problem.

### DES 648 - Introduction to Design Communication

#### *School of Art and Design*

3 credit(s) Only during the summer  
Introduction to the processes and techniques of design communication and presentation including both computer generated and manual applications.

### DES 652 - Branding and Marketing Works

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Double Numbered with: DES 452  
Interdisciplinary design studio focused on branding and marketing. Additional work required of graduate students.

### DES 672 - Introductory Design Studio

#### *School of Art and Design*

3 credit(s) Only during the summer  
Introduction to design processes and the application of design thinking, language, and methods to introductory level projects.

### DES 748 - Design Communication

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Development of a design communication skills and techniques for the process of design research, analysis, and synthesis with solutions to the thesis problem.

### DES 771 - Analysis and Synthesis

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Organization and evaluation strategies used in the analysis and synthesis of research information and data for establishing definitive design parameters and criteria.  
PREREQ: DES 647

### DES 772 - Design Project

#### *School of Art and Design*

6 credit(s) At least 1x fall or spring  
Developing and completing a comprehensive design project, including essential illustrations, technical drawings, models, and prototypes.

### DES 996 - Final Presentation

#### *School of Art and Design*

6 credit(s) At least 1x fall or spring  
Final presentation accompanied by written statement, culminating in oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.  
PREREQ: DES 771, DES 772

### DES 997 - Masters Thesis

#### *School of Art and Design*

6 credit(s) At least 1x fall or spring  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## Drawing

### DRW 503 - Drawing and Painting for Non-Art Majors

#### *School of Art and Design*

1-3 credit(s) Every semester  
Crosslisted with: PTG 503  
Fundamental concepts and techniques of painting and drawing.

### DRW 504 - Drawing and Painting for Non-Art Majors

#### *School of Art and Design*

1-3 credit(s) Every semester  
Crosslisted with: PTG 504  
Fundamental concepts and techniques of painting and drawing.

### DRW 555 - Drawing Research

#### *School of Art and Design*

1-6 credit(s) Every semester  
Crosslisted with: PTG 555  
Drawing as an expression and creative art form.  
PREREQ: PTG 455 AND 456

### DRW 650 - Drawing, Graduate

#### *School of Art and Design*

1-12 credit(s) Every semester  
Crosslisted with: PTG 650  
Drawing as self-contained expression through contemporary and historical investigation of materials and techniques.

## Environmental Arts

### ENA 627 - Field Study in Clothing and Textiles: Design, Construction, and Distribution

#### *College of Visual and Performing Arts*

3 credit(s) Irregularly  
Study in selected countries of specialized areas in design, construction, and distribution of clothing and textiles. Aspects of applicable cultural history. Lectures by authorities in each area visited.

### ENA 628 - Principles of Clothing Design: Draping and Flat Pattern

#### *College of Visual and Performing Arts*

3 credit(s) Irregularly  
Special problems in draping and flat patterns.

### ENA 637 - Costume in Contemporary Society

#### *College of Visual and Performing Arts*

3 credit(s) Irregularly  
Twentieth-century clothing forms: origins, evolution, current modes. Fashion and style as reflections of contemporary cultural trends and attitudes.

## GRADUATE COURSE CATALOG

### ENA 660 - Readings in Environmental Arts

#### *College of Visual and Performing Arts*

1-4 credit(s) Every semester  
Permission of Instructor.  
Repeatable

### ENA 670 - Experience Credit

#### *College of Visual and Performing Arts*

0-6 credit(s) Every semester  
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.  
Repeatable

### ENA 690 - Independent Study

#### *College of Visual and Performing Arts*

1-6 credit(s) Every semester  
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.  
Repeatable

### ENA 897 - Graduate Project

#### *College of Visual and Performing Arts*

0-6 credit(s) Every semester  
Project comparable to a master's thesis in quality and quantity of work; applicable in lieu of thesis only if a substantial portion of the work cannot be presented in written form.

### ENA 997 - Masters Thesis

#### *College of Visual and Performing Arts*

0-6 credit(s) Every semester  
Repeatable

## Fashion Design

### FAS 526 - Cultural Aspects of Clothing

#### *School of Art and Design*

3 credit(s) Irregularly  
Global cultures; how dress and adornment enhance understanding of these cultures.

### FAS 530 - Problems in Environmental Arts

#### *School of Art and Design*

3 credit(s) Irregularly  
Research in design, color, historic backgrounds applied to costume. Permission of Instructor.  
Repeatable

## Fiber Arts

### FIB 620 - Fiber Arts Research Problems

#### *School of Art and Design*

1-12 credit(s) At least 1x fall or spring  
Designed by student and faculty to involve student in program of personal research in fiber arts (whether on- or off-loom) stressing development of concept and technique.  
Repeatable

### FIB 720 - Fiber Arts Research Problems

#### *School of Art and Design*

1-12 credit(s) At least 1x fall or spring  
Continuation of FIB 620.

### FIB 996 - Final Presentation

#### *School of Art and Design*

3 credit(s) Every semester  
Final presentation accompanied by written statement, culminating in oral examination for M.F.A. or M.I.D. degree. Taken during final semester upon advisor's approval.

### FIB 997 - Masters Thesis

#### *School of Art and Design*

0-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## Film

### FIL 520 - Film Studies Seminar

#### *School of Art and Design*

3 credit(s) Every semester  
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

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Modes of filmmaking such as experimental, narrative, expository; or technical areas such as cinematography, lighting, or art design.  
PREREQ: FIL 223  
Repeatable 2 time(s), 9 credits maximum

### FIL 523 - Cinema Acting&Directing

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Exercises in filming fictional dramatic scripts. Required of B.F.A. acting students and all film drama directors.  
PREREQ: FIL 223 AND DRA 105 AND DRA 305

### FIL 527 - Critical Problems Film&Video

#### *School of Art and Design*

3 credit(s) Irregularly  
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

### FIL 620 - Filmmaking:Graduate Project

#### *School of Art and Design*

0-6 credit(s) Upon sufficient interest  
First-year graduate filmmaking. Required of all M.F.A. film candidates. Meets weekly. Individual and group filmmaking projects. Permission of Instructor.

### FIL 623 - Film Script Writing

#### *School of Art and Design*

3 credit(s) Upon sufficient interest  
Students produce scripts based on problems of adaptation as well as original work. Problems in dramatic structure, diegesis and dialogue. Permission of Instructor.

### FIL 625 - Intro Film Theory&Criticism

#### *School of Art and Design*

3 credit(s) Upon sufficient interest  
Individual and group graduate research projects in topics of film theory and criticism. Permission of Instructor.

### FIL 626 - Problems of Film Perception

#### *School of Art and Design*

3 credit(s) Upon sufficient interest  
Additional graduate research in topics of film theory. Required of all M.F.A. candidates.  
PREREQ: FIL 625

### FIL 720 - Filmmaking:Graduate Project

#### *School of Art and Design*

0-6 credit(s) Every semester  
Advanced graduate filmmaking, required of all M.F.A. candidates. Meets weekly. Individual and group filmmaking projects.  
PREREQ: FIL 620

### FIL 725 - Film Theory: Topics

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

### FIL 726 - Film Theory: Topics

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

### FIL 996 - Final Presentation

#### *School of Art and Design*

3 credit(s) Every semester  
Written statement to accompany final project,

## GRADUATE COURSE CATALOG

culminating in oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.

### FIL 997 - Masters Thesis

#### *School of Art and Design*

0-6 credit(s) Every semester

Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

### Fashion Illustration

#### FSH 570 - Fashion Illustration Res Prob

#### *School of Art and Design*

3 credit(s) Upon sufficient interest

Individual development in specialized areas of fashion illustration.

PREREQ: FSH 471

### Illustration

#### ILL 561 - Illustration Concept

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

Visiting faculty. The creative process, working procedures from concept to finish, and relationship between illustrator and client. Studio assignments.

#### ILL 562 - Illustration Concept

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

Visiting faculty. The creative process, working procedures from concept to finish, and relationship between illustrator and client. Studio assignments.

#### ILL 565 - Electronic Illustration

#### *School of Art and Design*

3 credit(s) Every semester

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.

#### ILL 660 - Illustration Research Problems

#### *School of Art and Design*

1-18 credit(s) Upon sufficient interest

Research into application of illustration.

#### ILL 760 - Illustration Communication

#### *School of Art and Design*

1-12 credit(s) Upon sufficient interest

Historical and contemporary aspects of illustration as they relate to the communication process.

PREREQ: ILL 660

#### ILL 996 - Final Presentation

#### *School of Art and Design*

3 credit(s) Every semester

Written statement to accompany final project, culminating in oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.

#### ILL 997 - Master's Thesis

#### *School of Art and Design*

0-6 credit(s) Every semester

Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

### Industrial Design

#### IND 571 - Industrial Design: Product Practicum

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

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 IND 578)

#### IND 572 - Industrial Design: Advanced Problems

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

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 IND 573 AND (IND 577 OR IND 578)

COREQ: IND 574

#### IND 573 - Industrial Design: Thesis Research

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

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 IND 578)

#### IND 574 - Industrial Design: Thesis

#### *School of Art and Design*

6 credit(s) At least 1x fall or spring

Research, analysis, and solution of a major design problem selected by the student to further his or her professional career.

PREREQ: IND 571 AND IND 573 AND (IND 577 OR IND 578)

COREQ: IND 572

#### IND 577 - Industrial Design: Philosophy and Ethics

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

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

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

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.

#### IND 671 - Design Information Research

#### *School of Art and Design*

1-12 credit(s) At least 1x fall or spring

Acquisition of available information and academic resources as the basis for a design project or thesis.

#### IND 672 - Basic Data Research

#### *School of Art and Design*

1-12 credit(s) At least 1x fall or spring

Systematic investigations using conceptual and/or physical models.

#### IND 673 - Human Factors For Designers

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

Double Numbered with: IND 375

Human factors, ergonomics, and anthropometric considerations in the human-product-environment relationship.

#### IND 676 - Digital Surface Modeling

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring

Double Numbered with: IND 376

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

## GRADUATE COURSE CATALOG

manufacturers.

### IND 679 - Industrial Design Interface

#### *School of Art and Design*

3 credit(s) Every semester  
Double Numbered with: IND 479  
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.

### IND 996 - Final Presentation

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Final presentation accompanied by written statement, culminating in oral examination for M.I.D. degree. Taken during final semester upon advisor's approval.

### IND 997 - Master's Thesis

#### *School of Art and Design*

0-6 credit(s) At least 1x fall or spring  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of departmental thesis advisor.

## Interior Design

### ISD 553 - Interior Design: Philosophy and Research

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
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

#### *School of Art and Design*

1-12 credit(s) Upon sufficient interest  
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. Repeatable

### ISD 648 - Design Analysis

#### *School of Art and Design*

1-12 credit(s) At least 1x fall or spring  
Examination and organization of material from the research phase with schematic interior design studies of the problem to set parameters. PREREQ: ISD 647

### ISD 651 - Environmental Design Focus Studio

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
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: ISD 352

### ISD 654 - Advanced Detailing and Construction

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Crosslisted with: DES 562  
Advance detailing and construction techniques, documentation, shop drawings, computer-aided construction methods for fabrication. PREREQ: ISD 653/ISD 453

### ISD 747 - Design Synthesis

#### *School of Art and Design*

1-12 credit(s) At least 1x fall or spring  
Development of two- or three-dimensional interior design solutions to the thesis problem with accompanying original research and testing documentation. PREREQ: ISD 648

## Jewelry and Metalsmithing

### JAM 600 - Selected Topics

#### *School of Art and Design*

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### JAM 620 - Jewelry and Metalsmithing Research Problems

#### *School of Art and Design*

1-12 credit(s) Every semester  
Involves student in program of personal creative research in jewelry and metalsmithing. Broadens technical background and applies experience in jewelry and metalsmithing to individual visual issues and critical thinking. Repeatable

### JAM 671 - History of Jewelry and Metalsmithing

#### *School of Art and Design*

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: JAM 471  
Study the history of jewelry/metalsmithing from prehistoric to contemporary pieces. Differences and similarities among cultures is discussed.

### JAM 674 - Jewelry and Metalsmithing Contemporary Issues

#### *School of Art and Design*

3 credit(s) Even Academic Yr e.g. 2004-5  
Double Numbered with: JAM 474  
Reading, research and discussion of the issues that face contemporary studio jewelers, metalsmiths, collectors, curators, critics and the jewelry industry.

### JAM 720 - Jewelry and Metalsmithing Graduate

#### *School of Art and Design*

1-9 credit(s) Every semester  
Advanced graduate creative research and critical discussion that focus on studio work in preparation for entry into the field as a studio artist, educator, writer and/or critic. Graduate Standing. Repeatable

### JAM 996 - Final Presentation

#### *School of Art and Design*

3 credit(s) Every semester  
Final presentation accompanied by written statement, culminating in oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.

### JAM 997 - Master's Thesis

#### *School of Art and Design*

1-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## Museum Studies

### MUS 500 - Selected Topics

#### *School of Art and Design*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### MUS 503 - Introduction to Museum Studies

#### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
The museum's historical development and its role in modern society. Curatorial methodologies, research techniques, professional ethics, and effective writing. Permission of instructor

## GRADUATE COURSE CATALOG

### **MUS 504 - Administrative Challenge and Change in Museums**

#### ***School of Art and Design***

3 credit(s) Only during the summer  
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**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Problems and responsibilities of the curator. Care, interpretation, and presentation of objects. Exhibition programming, history of collecting, curatorial ethics. Permission of instructor

### **MUS 600 - Selected Topics**

#### ***School of Art and Design***

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

### **MUS 603 - Practicum I**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Theory and practical application of procedures concerning the temporary exhibit. Registration, preparation and handling of works of art, environmental considerations, exhibition design and installation, packing and shipping art. Permission of instructor

### **MUS 604 - Practicum II**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Continuation of MUS 603. Students assume greater responsibility in all aspects of exhibition preparation and installation.  
PREREQ: MUS 603

### **MUS 607 - Collections Management**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Double Numbered with: MUS 407  
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 670 - Experience Credit**

#### ***School of Art and Design***

1-6 credit(s) Irregularly

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.  
Repeatable

### **MUS 703 - Advanced Curatorship**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Application of principles developed in MUS 506 to specific problems in exhibition planning and organization, publication preparation, and interpretation of individual works of art in their historical context.  
PREREQ: MUS 506

### **MUS 704 - Museum/Gallery Internship**

#### ***School of Art and Design***

0 credit(s)  
Eight weeks or more of full-time work in an approved museum or gallery under close supervision of senior staff. Permission of department chair

### **MUS 705 - Print Curatorship**

#### ***School of Art and Design***

3 credit(s) Upon sufficient interest  
Double Numbered with: MUS 405  
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 708 - Public Learning in Museums**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Double Numbered with: MUS 408  
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 709 - Museum Management**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Double Numbered with: MUS 409  
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 712 - Museum Development**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Double Numbered with: MUS 412  
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 750 - Advanced Problems in Museum Studies**

#### ***School of Art and Design***

1-6 credit(s)  
Individual projects of substantial complexity addressing specific problems in the field. Permission of instructor  
Repeatable 1 time(s), 6 credits maximum

### **MUS 896 - Graduate Research Project**

#### ***School of Art and Design***

3 credit(s)  
Final presentation of research project accompanied by written statement and oral examination. Taken in final semester upon advisor's approval. Permission of chair

## **Printmaking**

### **PRT 551 - Hand Papermaking Workshop**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
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**

#### ***School of Art and Design***

3 credit(s) At least 1x fall or spring  
Continued investigation in hand papermaking, simple bookbinding, and letterpress printing.

### **PRT 650 - Printmaking Research Problems**

#### ***School of Art and Design***

1-12 credit(s) Every semester  
Designed by student and faculty to involve student in personal research program in printmaking technology (lithography, intaglio, papermaking, silk screen, and related areas). Permission of instructor  
Repeatable

## GRADUATE COURSE CATALOG

### **PRT 750 - Printmaking Research Problems**

#### ***School of Art and Design***

1-12 credit(s) Every semester  
Continuation of PRT 650.  
Repeatable

### **PRT 996 - Final Presentation**

#### ***School of Art and Design***

3 credit(s) Every semester  
Final presentation accompanied by written statement, culminating in an oral examination for M.F.A. degree. Taken during final semester upon advisor's approval.

### **PRT 997 - Master's Thesis**

#### ***School of Art and Design***

0-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## **Painting**

### **PTG 503 - Drawing and Painting for Non-Art Majors**

#### ***School of Art and Design***

1-3 credit(s) Every semester  
Crosslisted with: DRW 503  
Fundamental concepts and techniques of painting and drawing.

### **PTG 504 - Drawing and Painting for Non-Art Majors**

#### ***School of Art and Design***

1-3 credit(s) Every semester  
Crosslisted with: DRW 504  
Fundamental concepts and techniques of painting and drawing.

### **PTG 555 - Drawing Research**

#### ***School of Art and Design***

1-6 credit(s) Every semester  
Crosslisted with: DRW 555  
Drawing as an expression and creative art form.  
PREREQ: PTG 455 OR 456

### **PTG 582 - Painting Research**

#### ***School of Art and Design***

1-6 credit(s) Every semester  
Advanced research.

### **PTG 585 - Painting Materials Techniques**

#### ***School of Art and Design***

1-3 credit(s) Irregularly  
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.

### **PTG 650 - Drawing, Graduate**

#### ***School of Art and Design***

1-12 credit(s) Every semester  
Crosslisted with: DRW 650  
Drawing as self-contained expression through contemporary and historical investigation of materials and techniques.

### **PTG 660 - Painting, Graduate**

#### ***School of Art and Design***

1-12 credit(s) Every semester  
Studio work and in-depth examination of professional practice through individual and group critiques with faculty and visiting artists. Includes scholarly investigations through readings in contemporary and historical criticism. Permission of instructor  
Repeatable

### **PTG 661 - Color and Pictorial Design Research Problems**

#### ***School of Art and Design***

3 credit(s) Irregularly  
Color focused pictorial design projects or paintings directed by student/faculty interaction and guidance. Emphasis on personal research in chromatic space and form, either two- or three-dimensional, utilizing pigments or colored light. Permission of instructor

### **PTG 666 - Materials and Techniques Research Problems**

#### ***School of Art and Design***

3 credit(s) Irregularly  
A program of individual technical research that delves into the diverse methods and materials of both the past and present, used in the production of two dimensional art forms. Permission of instructor

### **PTG 760 - Painting, Graduate**

#### ***School of Art and Design***

1-12 credit(s) Every semester  
Continuation of PTG 660.

### **PTG 996 - Final Presentation**

#### ***School of Art and Design***

3 credit(s) Every semester  
Final presentation accompanied by written statement, culminating in an oral examination for M.F.A. or M.I.D. degree. Taken during final semester upon advisor's approval.

### **PTG 997 - Masters Thesis**

#### ***School of Art and Design***

0-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

## **Sculpture**

### **SCU 507 - Sculpture Survey**

#### ***School of Art and Design***

1-9 credit(s) Every semester  
Modeling from life, casting, composition problems.  
PREREQ: SCU 207 AND 208

### **SCU 508 - Sculpture Survey**

#### ***School of Art and Design***

1-9 credit(s) Every semester  
Modeling from life, casting, composition problems.  
PREREQ: SCU 207 AND 208

### **SCU 591 - Wood and Mixed-Media Research**

#### ***School of Art and Design***

1-9 credit(s) Every semester  
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**

#### ***School of Art and Design***

1-9 credit(s) Every semester  
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**

#### ***School of Art and Design***

1-9 credit(s) Every semester  
Advanced research.  
PREREQ: SCU 295 AND 296

### **SCU 660 - Sculpture, Research Problems**

#### ***School of Art and Design***

1-12 credit(s) Every semester  
Professional problems in sculpture; advanced study in technique and theory. Development of a consistent body of work. Permission of instructor



## GRADUATE COURSE CATALOG

### SCU 760 - Sculpture, Research Problems

#### *School of Art and Design*

1-12 credit(s) Every semester  
Continuation of SCU 660.  
Repeatable

### SCU 996 - Final Presentation

#### *School of Art and Design*

3 credit(s) Every semester  
Final presentation accompanied by a written statement, culminating in oral examination for M.F.A. or M.I.D. degree. Taken during final semester upon advisor's approval.

### SCU 997 - Master's Thesis

#### *School of Art and Design*

0-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

### Surface Pattern Design

#### SPD 527 - Advanced Textile Printing

##### *School of Art and Design*

3 credit(s)  
Individual research of advanced dyeing and printing methods.  
PREREQ: TXT 314

#### SPD 643 - Design Analysis&Synthesis I

##### *School of Art and Design*

1-12 credit(s) At least 1x fall or spring  
Individual projects undertaken with instructor's consultation and guidance, directed toward professional decorative and repeat pattern design as related to the wall covering, textile, and allied industries. For first-year graduate surface pattern design majors.

#### SPD 743 - Design Analysis and Synthesis II

##### *School of Art and Design*

1-12 credit(s) At least 1x fall or spring  
Research problems in surface pattern design for graduate majors. Individual projects undertaken with instructor's consultation and guidance. Research directed toward professional decorative and repeat pattern design as related to the wall covering, textile, and allied industries. For first-year graduate surface pattern design majors.

#### SPD 996 - Final Presentation

##### *School of Art and Design*

3 credit(s) Every semester  
Written statement to accompany final project, culminating in oral examination for M.F.A. degree.

Taken during final semester upon advisor's approval.

#### SPD 997 - Masters Thesis

##### *School of Art and Design*

0-6 credit(s) Every semester  
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

### Transmedia

#### TRM 601 - Practicing in Public

##### *School of Art and Design*

3 credit(s) At least 1x fall or spring  
Crosslisted with: ART 601  
This course brings together graduate students from across VPA for interdisciplinary graduate critique. Critique of exhibition of student work is led by a visiting artist, curator, and/or critic. Repeatable 2 time(s), 9 credits maximum

#### TRM 610 - Literacy, Community and Media

##### *School of Art and Design*

3 credit(s)  
Double Numbered with: TRM 310  
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. Repeatable 1 time(s), 6 credits maximum

#### TRM 701 - TransMedia Graduate Seminar

##### *School of Art and Design*

3 credit(s) Irregularly

### Textiles

#### TXT 537 - Advanced Computer-Aided Pattern Design

##### *College of Visual and Performing Arts*

3 credit(s) At least 1x fall or spring  
Individual research of advanced computer-aided design methods.  
Repeatable 1 time(s), 6 credits maximum

#### TXT 600 - Selected Topics

##### *College of Visual and Performing Arts*

1-6 credit(s) Irregularly  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

#### TXT 612 - Interior Furnishings

##### *College of Visual and Performing Arts*

3 credit(s) At least 1x fall or spring  
Double Numbered with: TXT 312  
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 614 - Textile Handprinting

##### *College of Visual and Performing Arts*

3 credit(s) At least 1x fall or spring  
Double Numbered with: TXT 314  
Screen printing repetitive and engineered designs on fabric. Design process, color formulas, and screen preparation. Additional work required of graduate students.

#### TXT 616 - Computer-Aided Pattern Design

##### *College of Visual and Performing Arts*

3 credit(s) Every semester  
Double Numbered with: TXT 316  
Digital design for the development of decorative patterns. Motif manipulation, color selection, repeat techniques, and presentation methods. Additional work required of graduate students.

#### TXT 624 - Textiles Synthesis

##### *College of Visual and Performing Arts*

3 credit(s) Every semester  
Double Numbered with: TXT 324  
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 626 - Environmental Textiles

##### *College of Visual and Performing Arts*

3 credit(s) At least 1x fall or spring  
Double Numbered with: TXT 326  
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 627 - Textiles in Context

##### *College of Visual and Performing Arts*

3 credit(s) At least 1x fall or spring  
Double Numbered with: TXT 327  
Research textile parameters from the perspective of student's design specializations. Design and fabricate cloth and finished projects for those

## GRADUATE COURSE CATALOG

applications. Emphasis on creative problem solving and investigating qualities of textiles within different mediums. Additional work required of graduate students.  
Repeatable 1 time(s), 6 credits maximum

### **TXT 690 - Independent Study**

#### **School of Art and Design**

1-6 credit(s) Irregularly

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.

Repeatable

### **Drama**

#### **DRA 515 - Play Analysis and Introduction to Mise-en-Scène**

##### **Drama**

3 credit(s) At least 1x fall or spring

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**

##### **Drama**

0-3 credit(s) Every semester

Problems in characterization, period, and language posed by masterworks of prose drama. Scenes from Ibsen, Chekhov, Shaw, etc.

Repeatable 1 time(s), 9 credits maximum

#### **DRA 523 - Audition Technique**

##### **Drama**

3 credit(s) Every semester

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

Repeatable 1 time(s), 6 credits maximum

#### **DRA 524 - Acting: Drama in the Elizabethan and Romantic Modes**

##### **Drama**

0-3 credit(s) At least 1x fall or spring

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

Repeatable 3 time(s), 12 credits maximum

#### **DRA 525 - Acting: Drama in Classic and Classicist Mode**

##### **Drama**

0-3 credit(s) At least 1x fall or spring

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

Repeatable 3 time(s), 12 credits maximum

#### **DRA 526 - Acting: Drama in the Naturalistic Mode**

##### **Drama**

0-3 credit(s) At least 1x fall or spring

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

Repeatable 3 time(s), 12 credits maximum

#### **DRA 527 - Dialects**

##### **Drama**

3 credit(s) Irregularly

Standard foreign dialects for dramatic purposes using phonograph records and phonetic transcriptions of foreign dialects.

#### **DRA 528 - Dialects Workshop**

##### **Drama**

3 credit(s) Irregularly

Continuation of DRA 527.

PREREQ: DRA 527

#### **DRA 529 - Acting for the Frame**

##### **Drama**

3 credit(s) At least 1x fall or spring

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**

##### **Drama**

3 credit(s) Every semester

Scene study. Selection by audition and interview. Repeatable 1 time(s), 9 credits maximum

#### **DRA 532 - Directing: Special Problems**

##### **Drama**

3 credit(s) Irregularly

Specific area of directing selected by the department and announced before registration.

May be repeated for credit, if problems differ.

PREREQ: DRA 515

Repeatable

#### **DRA 539 - Directors' Workshop**

##### **Drama**

3 credit(s) Irregularly

Increasing conceptual skills and rehearsal techniques by directing assigned materials under close faculty supervision. Selection by interview.

#### **DRA 540 - Theater Dance Repertory**

##### **Drama**

1-2 credit(s)

Studio study of significant choreography from the musical theater repertoire. Emphasizing technical accuracy, stylistic integrity, and performance quality. Department consent required.

#### **DRA 550 - Professional Practices**

##### **Drama**

3 credit(s) At least 1x fall or spring

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**

##### **Drama**

3 credit(s) Irregularly

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**

##### **Drama**

3 credit(s) Irregularly

Development of American theater from colonial origins to present. Emergence of a distinctive national tradition.

#### **DRA 560 - Music Theater Production**

##### **Drama**

0-3 credit(s) Every semester

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

Repeatable

#### **DRA 561 - Music and Shakespeare**

##### **Drama**

3-4 credit(s)

Crosslisted with: HOM 561

A discussion-based course investigating the place of music in Shakespeare's plays. Also considers

## GRADUATE COURSE CATALOG

the role of music in early modern English culture as well as later musical adaptations of Shakespeare.

### **DRA 581 - Intro to Playwriting**

#### **Drama**

3 credit(s) Upon sufficient interest  
Structure, characterization, dialogue. Practice in writing the short play.  
PREREQ: DRA 315 OR DRA 515

### **DRA 582 - Play Writing**

#### **Drama**

3 credit(s) Upon sufficient interest  
Continuation of DRA 581.  
PREREQ: DRA 581

### **DRA 591 - Development of the Full-Length Play**

#### **Drama**

3 credit(s) At least 1x fall or spring  
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**

#### **Drama**

3 credit(s) At least 1x fall or spring  
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

### **DRA 600 - Selected Topics**

#### **Drama**

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

### **DRA 620 - Graduate Scene Study II**

#### **Drama**

0-3 credit(s) Upon sufficient interest  
Problems in acting the classic repertoire, especially masterworks of poetic drama.  
Assignments selected from Shakespeare and other Elizabethans, French neoclassical tragedy and comedy, and more modern works presenting similar problems.  
Repeatable

### **DRA 622 - Interp Shakespeare/Perfrm**

#### **Drama**

3 credit(s) Upon sufficient interest  
An intensive study of tonal qualities and motivation in three of Shakespeare's plays as well

as discriminating oral interpretation of passages from these plays.  
PREREQ: DRA 225

### **DRA 631 - Advanced Directing**

#### **Drama**

3 credit(s) Upon sufficient interest  
Seminar and practicum. Reading, discussion in directorial concepts, and rehearsal methods. Class discussion and criticism of assigned scenes.  
PREREQ: DRA 531

### **DRA 632 - Advanced Directing**

#### **Drama**

3 credit(s) Upon sufficient interest  
Continuation of DRA 631.  
PREREQ: DRA 631

### **DRA 633 - Adaptation and Performance of Nondramatic Literature**

#### **Drama**

3 credit(s) Upon sufficient interest  
Aesthetics and techniques of interpreting drama and nondramatic literature through staged group reading. Permission of instructor

### **DRA 639 - Projects in Directing**

#### **Drama**

1-6 credit(s) Upon sufficient interest  
Directing projects proposed by advanced students, usually graduate students, for developing and/or demonstrating their skills. Projects must be approved by faculty member who serves as advisor-critic and by department.

### **DRA 651 - Graduate Seminars in Theatrical and Dramatic History**

#### **Drama**

3 credit(s) Upon sufficient interest  
Exploration of a period, stylistic development, or other aspect of history of theater and drama selected by department and announced before registration.  
PREREQ: DRA 355, 356  
Repeatable

### **DRA 652 - Graduate Seminars in Modern Theater and Drama**

#### **Drama**

3 credit(s) Upon sufficient interest  
Exploration of an aspect of the development of theater and drama of our time, selected by department and announced before registration.  
PREREQ: DRA 355, 356  
Repeatable

### **DRA 655 - Dramatic Criticism**

#### **Drama**

3 credit(s) Upon sufficient interest

Representative forms and exponents of dramatic criticism from major periods of dramatic history. Permission of instructor.

### **DRA 656 - Dramatic Criticism**

#### **Drama**

3 credit(s) Upon sufficient interest  
Representative forms and exponents of dramatic criticism from major periods of dramatic history. Permission of instructor.

### **DRA 660 - Music Theater Practicum**

#### **Drama**

1-3 credit(s) Upon sufficient interest  
Individual coaching in performance techniques. Student-proposed projects in directing and other areas related to musical productions. Permission of instructor.

### **DRA 670 - Experience Credit**

#### **Drama**

1-6 credit(s) Upon sufficient interest  
Participation in 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 of instructor.

### **DRA 690 - Independent Study**

#### **Drama**

1-6 credit(s) Upon sufficient interest  
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Permission of instructor. Repeatable

### **DRA 710 - Graduate Readings**

#### **Drama**

1-6 credit(s) Upon sufficient interest  
Repeatable

### **DRA 715 - Seminar in Mise-en-Scène**

#### **Drama**

3 credit(s) Upon sufficient interest  
For graduate directing and design students. Production theory and practical approaches to research, script analysis, and conceptualization of theatrical productions. Required of all M.F.A. candidates before beginning thesis project.  
PREREQ: DRA 355, 356, DRA 515, DRA 531, DRA 651, DRA 652

### **DRA 996 - Graduate Research Project(s)**

#### **Drama**

1-6 credit(s) Upon sufficient interest  
Project(s) demonstrating M.F.A. candidate's mastery of chosen field: theatrical design or directing. Selected with advice and consent of

## GRADUATE COURSE CATALOG

departmental advisors. Written presentation and oral defense of major paper, documenting research into relevant philosophic and historical perspectives and their use in forming production concepts and resultant performance(s). Required of all M.F.A. candidates.

Repeatable

### Design/Technical Theater

#### DRD 501 - Design for Directors

##### *Drama*

3 credit(s) Upon sufficient interest  
Basic theory and techniques of design for the stage. Communicating ideas to designers and vice versa.

#### DRD 541 - Projects in Technical Practice I

##### *Drama*

3 credit(s) Upon sufficient interest  
Solution of advanced problems in all phases of technical practice, fitted to the needs of the individual student as far as possible. Department consent required.

#### DRD 542 - Projects in Technical Practice II

##### *Drama*

3 credit(s) Upon sufficient interest  
Continuation of DRD 541. Department consent required.  
PREREQ: DRD 541

#### DRD 555 - Evolution of Stage Design

##### *Drama*

3 credit(s) Upon sufficient interest  
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 cultural and historical context.

#### DRD 599 - Internship in Theatrical Design, Technology, or Management

##### *Drama*

3-9 credit(s) Upon sufficient interest  
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.

#### DRD 617 - Advanced Practicum in Scene Painting

##### *Drama*

2 credit(s) Upon sufficient interest  
Problems and practice in scene painting for production, supervised by Syracuse Stage

professional staff and faculty advisor. Permission of instructor.

#### DRD 618 - Advanced Practicum in Properties Construction

##### *Drama*

2 credit(s) At least 1x fall or spring  
Problems and practices in the procuring or design and construction of stage properties, supervised by Syracuse Stage professional staff. Permission of instructor.

#### DRD 627 - Advanced Practicum in Costume Construction

##### *Drama*

2 credit(s) Upon sufficient interest  
Problems and practice in costume construction for production, supervised by Syracuse Stage professional staff and faculty advisor. Permission of instructor.

#### DRD 631 - Stage Lighting I

##### *Drama*

3 credit(s) At least 1x fall or spring  
Double Numbered with: DRD 331  
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 632 - Stage Lighting II

##### *Drama*

3 credit(s) At least 1x fall or spring  
Double Numbered with: DRD 332  
Continuation of DRD 631/331. Required of all majors in design/technical theater, and graduate students in stage design.  
PREREQ: DRD 631/DRD 331

#### DRD 637 - Advanced Practicum in Stage Lighting

##### *Drama*

2 credit(s) Upon sufficient interest  
Problems and practice in stage lighting for production, supervised by Syracuse Stage professional staff and faculty advisor. Permission of instructor

#### DRD 638 - Advanced Practicum in Theater Sound

##### *Drama*

2 credit(s) Upon sufficient interest  
Problems and practice in theater sound for production, supervised by Syracuse Stage professional staff and faculty advisor. Permission of instructor.

#### DRD 641 - Advanced Projects in Design and Technical Theater

##### *Drama*

3-6 credit(s) Upon sufficient interest  
Individual projects in design of sets, lights, or costumes for actual production, assigned and supervised by faculty advisor. Permission of instructor.  
Repeatable

#### DRD 692 - Production Management

##### *Drama*

3 credit(s) At least 1x fall or spring  
The role of the production manager in the process of producing a theatrical season and administering a production department.  
PREREQ: DRD 251, 340, 450

### Communication and Rhetorical Studies

#### CRS 514 - Language & Meaning

##### *Communication and Rhetorical Studies*

3 credit(s) Irregularly  
Analysis of language and social interaction in various contexts; language and social identity.

#### CRS 531 - Advances in Interpersonal Communication

##### *Communication and Rhetorical Studies*

3 credit(s) Irregularly  
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

##### *Communication and Rhetorical Studies*

3 credit(s) Irregularly  
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

##### *Communication and Rhetorical Studies*

3 credit(s) Irregularly  
Examines current concepts of interpersonal communication and their historical development. Demonstrates how interpersonal communication influences and is influenced by community contexts.  
PREREQ: CRS 331

## GRADUATE COURSE CATALOG

### **CRS 538 - Advances in Organizational Speech Communication**

#### ***Communication and Rhetorical Studies***

3 credit(s) Irregularly

Concepts and theoretical perspectives.

Organizational dynamics; communication issues and problems. Permission of Instructor.

PREREQ: CRS 338

### **CRS 545 - Issues in Argumentation**

#### ***Communication and Rhetorical Studies***

3 credit(s) Irregularly

Emerging perspectives of the field theory of argument, constructivist approaches, cognitive approaches, against traditional models of argumentation. Permission of Instructor.

PREREQ: CRS 334

### **CRS 551 - History of British Public Address**

#### ***Communication and Rhetorical Studies***

3 credit(s) Irregularly

Public address as an influence in the political, legal, social, and religious history of England.

Permission of instructor

### **CRS 552 - History of Rhetorical Theory**

#### ***Communication and Rhetorical Studies***

3 credit(s) Irregularly

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**

#### ***Communication and Rhetorical Studies***

3 credit(s) Irregularly

Public address as an influence in the political, social, legal, and religious history of America.

Permission of instructor

### **CRS 567 - Rhetoric and Philosophy**

#### ***Communication and Rhetorical Studies***

3 credit(s) Irregularly

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**

#### ***Communication and Rhetorical Studies***

3 credit(s) Irregularly

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

### **CRS 600 - Selected Topics**

#### ***Communication and Rhetorical Studies***

1-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### **CRS 601 - Proseminar in Communication**

#### ***Communication and Rhetorical Studies***

3 credit(s) At least 1x fall or spring

An introduction to selected social science communication theories and research exemplars that define the study of contemporary communication.

### **CRS 602 - Empirical Research in Social Communication**

#### ***Communication and Rhetorical Studies***

3 credit(s) At least 1x fall or spring

A survey of quantitative and qualitative empirical research methods in the study of speech communication. Topics include experimental, survey, and qualitative designs, measurements, and techniques for data analysis.

### **CRS 603 - Contemporary Theories of Rhetoric**

#### ***Communication and Rhetorical Studies***

3 credit(s) At least 1x fall or spring

British, American, and Continental rhetorical thought in 19th and 20th centuries.

### **CRS 604 - Qualitative Communication Research Methods**

#### ***Communication and Rhetorical Studies***

3 credit(s) At least 1x fall or spring

A survey of qualitative research methods including logic, philosophy, innovations, and controversies in these methods.

### **CRS 605 - Communication and Cosmopolitan Studies**

#### ***Communication and Rhetorical Studies***

3 credit(s) At least 1x fall or spring

Foundations of critical communication theory with focus on communication as a constitutive phenomenon. Social constructionist, feminist, postmodern, poststructural, historical perspectives on communication.

### **CRS 606 - Issues and Methods in Critical Communication Theory**

#### ***Communication and Rhetorical Studies***

3 credit(s) Upon sufficient interest

Applications and methodological implications of critical perspectives and frameworks introduced in CRS 605. Critical methodologies and research

strategies.

PREREQ: CRS 605

### **CRS 614 - Communication, Power & Gender**

#### ***Communication and Rhetorical Studies***

3 credit(s) Irregularly

Crosslisted with: WGS 615

Consideration of the ways in which communication structures power and gender relations. Reviewing Continental and North American literature on power, and feminist literature on gender, students study how communication produces social identities and hierarchies.

### **CRS 615 - Frontiers of Communications**

#### ***Communication and Rhetorical Studies***

3 credit(s) At least 1x fall or spring

Double Numbered with: CRS 315

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 617 - Innovation in Communication and Rhetoric**

#### ***Communication and Rhetorical Studies***

3 credit(s) At least 1x fall or spring

Double Numbered with: CRS 317

Understanding innovation as a communication and rhetorical phenomenon, and to identify how innovation emerges from different communication and rhetorical practices.

### **CRS 624 - Business Communication**

#### ***Communication and Rhetorical Studies***

1.5 credit(s)

Communication skills for oral presentations including effective public speaking, group presentation, committee reports, and critical assessments.

### **CRS 625 - Oral Communication Skills for Engineers**

#### ***Communication and Rhetorical Studies***

3 credit(s)

Instruction in effective presentational communication skills. The course includes the fundamentals of oral communication and their application and practice in different presentational contexts.

### **CRS 626 - Medieval and Modern Theories of Rhetoric**

#### ***Communication and Rhetorical Studies***

3 credit(s) Upon sufficient interest

## GRADUATE COURSE CATALOG

Theories formulated by medieval and modern rhetoricians. Decay of classical tradition in the Middle Ages. The Renaissance.

### CRS 627 - Speechwriting

#### **Communication and Rhetorical Studies**

3 credit(s) At least 1x fall or spring

Double Numbered with: CRS 327

Principles and practices of writing ceremonial and persuasive speeches for clients. Additional work required of graduate students.

### CRS 630 - Intercultural Communication

#### **Communication and Rhetorical Studies**

3 credit(s) At least 1x fall or spring

Double Numbered with: CRS 430

Principles and applications. Approaches and issues pertinent to effective communication across cultures and in multicultural societies. Verbal and nonverbal patterns. Culture shock.

### CRS 636 - Feminist Rhetoric(s)

#### **Communication and Rhetorical Studies**

3 credit(s)

Crosslisted with: CCR 636, WGS 636

Double Numbered with: CRS 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.

### CRS 655 - Rhetorical Criticism

#### **Communication and Rhetorical Studies**

3 credit(s) At least 1x fall or spring

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 670 - Experience Credit

#### **Communication and Rhetorical Studies**

1-6 credit(s) Upon sufficient interest

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.

### CRS 683 - Rhetoric of Film

#### **Communication and Rhetorical Studies**

3 credit(s) At least 1x fall or spring

Double Numbered with: CRS 483

Examination of how popular films and documentaries function rhetorically to reflect and construct social and political change.

### CRS 690 - Independent Study

#### **Communication and Rhetorical Studies**

1-6 credit(s) Upon sufficient interest

Guided independent reading, performance, and/or direction geared to interest and development of individual student. Permission of instructor  
Repeatable 5 time(s), 6 credits maximum

### CRS 744 - African American Rhetorics

#### **Communication and Rhetorical Studies**

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: CCR 744

Surveys African American discourse and its relationship to equality, resistance and participation. Examines philosophical concepts, political issues, discursive characteristics, traditions, theories, and histories of African American Rhetoric

### CRS 745 - Research Seminar in Communication and Rhetorical Studies

#### **Communication and Rhetorical Studies**

3 credit(s) Upon sufficient interest

Analyzing research studies; conducting a study to develop a methodology for graduate theses.

### CRS 746 - Queer Rhetorics

#### **Communication and Rhetorical Studies**

3 credit(s) Even Academic Yr e.g. 2004-5

Crosslisted with: CCR 746, QSX 746, WGS 746

Explores contemporary queer scholarship and activism from a rhetorical perspective. Analyzes purposes, arguments, tropes, figures, exigencies, modes of delivery, and audiences in historical and transnational contexts

### CRS 825 - Seminar in Persuasion

#### **Communication and Rhetorical Studies**

3 credit(s) Upon sufficient interest

Analysis and criticism of contemporary research in principles and methods of persuasion.

### CRS 835 - Seminar in Discussion

#### **Communication and Rhetorical Studies**

3 credit(s) Upon sufficient interest

Analysis of contemporary research in principles and methods of discussion. Permission of instructor

### CRS 862 - Seminar in Rhetoric and Public Address

#### **Communication and Rhetorical Studies**

3 credit(s) Upon sufficient interest

Analysis and criticism of contemporary research in rhetoric and public address of various historical periods and in various nations.

### CRS 996 - Faculty Guided Research Project

#### **Communication and Rhetorical Studies**

3 credit(s) At least 1x fall or spring

Student writes a research paper on a project negotiated with a faculty member based on area of expertise.

### CRS 997 - Master's Thesis

#### **Communication and Rhetorical Studies**

6 credit(s) At least 1x fall or spring

## Setnor School of Music

### Applied Music

#### AMC 525 - Keyboard Skills

##### **Setnor School of Music**

2 credit(s) Upon sufficient interest

Sight reading. Score reading. Transposition. Basic ensemble techniques. Two-piano and four-hand repertoire emphasized. Permission of instructor.

#### AMC 526 - Technq of Accompaniment

##### **Setnor School of Music**

2 credit(s) Upon sufficient interest

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

##### **Setnor School of Music**

0-1 credit(s) Every semester

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. Repeatable

#### AMC 545 - Diction in Singing

##### **Setnor School of Music**

2 credit(s) At least 1x fall or spring

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

##### **Setnor School of Music**

2 credit(s) At least 1x fall or spring

Basic phonetics (International Phonetic Alphabet). Enunciation in the foreign languages most

## GRADUATE COURSE CATALOG

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**

#### ***Setnor School of Music***

2 credit(s) At least 1x fall or spring  
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

### **AMC 799 - Capstone Project**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring  
Final research project in the Master of Music degree programs if required by degree plan or selected through advisement.

## **Bassoon**

### **BSN 560 - Bassoon/Non Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **BSN 565 - Bassoon/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **BSN 566 - Bassoon/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **BSN 665 - Bassoon/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **BSN 666 - Bassoon/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **BSN 765 - Bassoon/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **BSN 766 - Bassoon/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For performance majors.

## **Tuba**

### **BTB 550 - Tuba/Non Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **BTB 555 - Tuba/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **BTB 556 - Tuba/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **BTB 655 - Tuba/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **BTB 656 - Tuba/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **BTB 755 - Tuba/Music Majors**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **BTB 756 - Tuba/Music Majors**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Clarinet**

### **CLR 540 - Clarinet/Non Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **CLR 545 - Clarinet/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **CLR 546 - Clarinet/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **CLR 645 - Clarinet/Music Majors**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **CLR 646 - Clarinet/Music Majors**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **CLR 745 - Clarinet/Music Major**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **CLR 746 - Clarinet/Music Major**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Conducting**

### **CTG 545 - Basic Conducting**

#### ***Setnor School of Music***

2 credit(s) Every semester  
Baton technique: beat patterns, tempo indication, preparation and release, style, dynamics, cueing and eye contact.

### **CTG 546 - Intermediate Conducting Choral**

#### ***Setnor School of Music***

2 credit(s)  
Hand techniques. Vocal music techniques. Score analysis. Warm-ups. Choral literature. Elements of ensemble performance.  
PREREQ: CTG 545

### **CTG 548 - Intermediate Conducting, Instrumental**

#### ***Setnor School of Music***

2 credit(s) At least 1x fall or spring  
Hand techniques. Instrumental music techniques. Score analysis. Warm-ups. Instrumental literature.  
PREREQ: CTG 545

### **CTG 615 - Applied Music, Conducting**

#### ***Setnor School of Music***

2 credit(s)  
For graduate music students with emphasis in conducting.

### **CTG 616 - Applied Music, Conducting**

#### ***Setnor School of Music***

2 credit(s)  
For graduate music students with emphasis in conducting.

## GRADUATE COURSE CATALOG

### **CTG 640 - Advanced Conducting**

#### ***Setnor School of Music***

2 credit(s) Upon sufficient interest

For advanced students whose technical knowledge and musical scholarship is established.

### **CTG 715 - Applied Music, Conducting**

#### ***Setnor School of Music***

2 credit(s)

For graduate music students with emphasis in conducting.

### **CTG 716 - Applied Music, Conducting**

#### ***Setnor School of Music***

2 credit(s)

For graduate music students with emphasis in conducting.

## **Double Bass**

### **DBS 540 - Double Bass/Non Mus Major**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For non-music students.

Repeatable 1 time(s), 4 credits maximum

### **DBS 545 - Double Bass/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For music students.

### **DBS 546 - Double Bass/Music Majors**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For music students.

### **DBS 645 - Double Bass/Music Majors**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For performance majors.

### **DBS 646 - Double Bass/Music Majors**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For performance majors.

### **DBS 745 - Double Bass/Music Majors**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For performance majors.

### **DBS 746 - Double Bass/Music Majors**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For performance majors.

## **Ensemble (Chamber Music)**

### **ENC 510 - Chamber Music Mixed**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENC 520 - Chamber Music/Piana**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENC 530 - Chamber Music/Strings**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENC 540 - Chamber Music/Woodwinds**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENC 550 - Chamber Music/Brass**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENC 560 - Chamber Music/Percussion**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable, 8 credits maximum

## **Ensemble (Instrumental)**

### **ENI 510 - Large Bands**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENI 520 - Small Bands**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENI 530 - Reading Band**

#### ***Setnor School of Music***

0-1 credit(s) Irregularly

Repeatable

### **ENI 540 - University Orchestra**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENI 550 - Small Orchestra**

#### ***Setnor School of Music***

0-1 credit(s) Irregularly

Repeatable

### **ENI 560 - Reading Orchestra**

#### ***Setnor School of Music***

0-1 credit(s) Irregularly

Repeatable

## **Ensemble (Vocal)**

### **ENV 510 - Large Chorus**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENV 520 - Small Chorus**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

### **ENV 530 - Reading Chorus**

#### ***Setnor School of Music***

0-1 credit(s) Irregularly

Repeatable

### **ENV 540 - Hendricks Chapel Choir**

#### ***Setnor School of Music***

0-1 credit(s) Every semester

Repeatable

## **Euphonium**

### **EUP 530 - Euphonium Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For non-music students.

Repeatable 1 time(s), 4 credits maximum

### **EUP 535 - Euphonium Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For music students.

### **EUP 536 - Euphonium Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For music students.

### **EUP 635 - Euphonium Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For performance majors.

### **EUP 636 - Euphonium Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For performance majors.



## GRADUATE COURSE CATALOG

### **EUP 735 - Euphonium Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **EUP 736 - Euphonium Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **French Horn**

### **FHN 520 - French Horn Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **FHN 525 - French Horn Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **FHN 526 - French Horn Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **FHN 625 - French Horn Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **FHN 626 - French Horn Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **FHN 725 - French Horn Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **FHN 726 - French Horn Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Flute**

### **FLT 510 - Flute Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **FLT 515 - Flute Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **FLT 516 - Flute Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **FLT 615 - Flute Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **FLT 616 - Flute/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester

### **FLT 715 - Flute Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **FLT 716 - Flute Instruction**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Guitar**

### **GTR 521 - Survey of Classical Guitar History and Literature**

***Setnor School of Music***

3 credit(s) Odd academic yr e.g. 2007-8  
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**

***Setnor School of Music***

3 credit(s)

### **GTR 523 - Transcribing and Arranging for Classical Guitar**

***Setnor School of Music***

3 credit(s)

### **GTR 524 - Classical Guitar Pedagogy**

***Setnor School of Music***

3 credit(s)

### **GTR 560 - Classical Guitar Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **GTR 565 - Classical Guitar Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **GTR 566 - Classical Guitar Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **GTR 665 - Classical Guitar Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **GTR 666 - Classical Guitar Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **GTR 671 - Classical Guitar Performance Seminar**

***Setnor School of Music***

0 credit(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 665, MHL 671

### **GTR 672 - Classical Guitar Performance Seminar**

***Setnor School of Music***

0 credit(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.  
PREREQ: GTR 671  
COREQ: GTR 666, MHL 672

### **GTR 765 - Classical Guitar Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **GTR 766 - Classical Guitar Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

## GRADUATE COURSE CATALOG

### **GTR 771 - Classical Guitar Performance Seminar**

#### ***Setnor School of Music***

0 credit(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 765, MHL 771

### **GTR 772 - Classical Guitar Performance Seminar**

#### ***Setnor School of Music***

0 credit(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. PREREQ: GTR 771  
COREQ: GTR 766, MHL 772

## **Harp**

### **HPD 530 - Harpsichord Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For non-music students.

Repeatable 1 time(s), 4 credits maximum

### **HPD 535 - Harpsichord Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For music students.

### **HPD 536 - Harpsichord Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For music students.

## **Harp**

### **HRP 550 - Harp Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For non-music students.

Repeatable 1 time(s), 4 credits maximum

### **HRP 555 - Harp Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For music students.

### **HRP 556 - Harp Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester

For music students.

### **HRP 655 - Harp Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For music majors.

### **HRP 656 - Harp Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For music majors.

### **HRP 755 - Harp Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For music majors.

### **HRP 756 - Harp Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

For music majors.

## **Music History and Literature**

### **MHL 500 - Selected Topics**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest

Selected aspect of music history or literature.

Content and method of instruction may vary for each workshop.

Repeatable

### **MHL 525 - Survey of Keyboard Literature: 1650 to 1850**

#### ***Setnor School of Music***

3 credit(s) Odd academic yr e.g. 2007-8

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**

#### ***Setnor School of Music***

3 credit(s) Odd academic yr e.g. 2007-8

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**

#### ***Setnor School of Music***

2 credit(s)

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**

#### ***Setnor School of Music***

2 credit(s) At least 1x fall or spring

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**

#### ***Setnor School of Music***

3 credit(s) Odd academic yr e.g. 2007-8

For pianists and singers. Historical survey of art song repertoire through performance, listening, and research.

PREREQ: MHL 545

### **MHL 547 - Vocal Literature II**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring

For singers/pianists. Continuation of MHL 546; 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**

#### ***Setnor School of Music***

3 credit(s) Even Academic Yr e.g. 2004-5

For pianists and instrumentalists. Historical survey of major chamber music repertoire through performance, listening, and research.

### **MHL 557 - Survey of Choral Literature I**

#### ***Setnor School of Music***

2 credit(s) Odd academic yr e.g. 2007-8

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**

#### ***Setnor School of Music***

2 credit(s) Odd academic yr e.g. 2007-8

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 267 AND MTC 246

### **MHL 560 - The Concert Experience**

#### ***Setnor School of Music***

3 credit(s) Irregularly

Repeatable

## GRADUATE COURSE CATALOG

### **MHL 566 - Topics in Music Literature and Analysis**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring  
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.  
Repeatable 2 time(s), 12 credits maximum

### **MHL 567 - Choral Literature**

#### ***Setnor School of Music***

2 credit(s) Irregularly  
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**

#### ***Setnor School of Music***

2-3 credit(s) At least 1x fall or spring  
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**

#### ***Setnor School of Music***

3 credit(s) Irregularly  
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**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest  
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.  
Repeatable

### **MHL 664 - History of American Popular Music**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring  
Double Numbered with: MHL 364  
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 666 - History of Jazz**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring  
Chrono- logical survey of the roots of jazz through the present. Open to all graduate students.

### **MHL 671 - Weekly Student Convocation Graduate**

#### ***Setnor School of Music***

0 credit(s) At least 1x fall or spring  
Repeatable 1 time(s)

### **MHL 672 - Weekly Student Convocation Graduate**

#### ***Setnor School of Music***

0 credit(s) At least 1x fall or spring  
Repeatable 1 time(s)

### **MHL 771 - Weekly Student Convocation Graduate**

#### ***Setnor School of Music***

0 credit(s) At least 1x fall or spring  
Repeatable 1 time(s)

### **MHL 772 - Weekly Student Convocation Graduate**

#### ***Setnor School of Music***

0 credit(s) At least 1x fall or spring  
Repeatable 1 time(s)

## **Music Theory**

### **MTC 500 - Workshop In Music Theory**

#### ***Setnor School of Music***

1-3 credit(s) Upon sufficient interest  
Selected aspect of music theory. Content and method of instruction may vary for each workshop.  
Repeatable 1 time(s), 6 credits maximum

### **MTC 535 - Orchestration**

#### ***Setnor School of Music***

3 credit(s) Odd academic yr e.g. 2007-8  
Scoring for individual instruments and small ensembles. Analysis of selected instrumental compositions.  
PREREQ: MTC 246

### **MTC 540 - Survey of Basic Theory**

#### ***Setnor School of Music***

1-3 credit(s) At least 1x fall or spring  
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**

#### ***Setnor School of Music***

3 credit(s) Upon sufficient interest  
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**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring  
Twentieth-century compositional methods, analysis of selected works. Introduction to 12-tone set theory.  
PREREQ: MTC 246

### **MTC 550 - Composition**

#### ***Setnor School of Music***

1-2 credit(s) Every semester  
For students not majoring in composition.  
Permission of instructor

### **MTC 551 - Songwriting**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring  
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**

#### ***Setnor School of Music***

3 credit(s) Irregularly  
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**

#### ***Setnor School of Music***

3 credit(s) Upon sufficient interest  
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**

#### ***Setnor School of Music***

1 credit(s) Every semester  
Beginning jazz theory; simple harmonic functions. Improvisation with Ionian, Dorian, and Mixolydian modes. Arranging for small ensembles. Permission

## GRADUATE COURSE CATALOG

of instructor.

### **MTC 556 - Jazz Improvisation II**

#### ***Setnor School of Music***

1 credit(s) Every semester

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**

#### ***Setnor School of Music***

1 credit(s) Every semester

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**

#### ***Setnor School of Music***

1 credit(s) Every semester

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**

#### ***Setnor School of Music***

3 credit(s) Every semester

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.

Repeatable

### **MTC 562 - Performing with Computers**

#### ***Setnor School of Music***

3 credit(s) Irregularly

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**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring

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.

Repeatable 2 time(s), 12 credits maximum

### **MTC 590 - Independent Study**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest

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.

### **MTC 625 - Evolution of Harmony**

#### ***Setnor School of Music***

3 credit(s) Irregularly

Origins and development of harmony from organum to music of the present.

### **MTC 626 - Evolution of Form**

#### ***Setnor School of Music***

3 credit(s) Irregularly

Origins and development of musical forms from the period of Gregorian chants to present.

### **MTC 635 - Advanced Orchestration**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring

Contemporary techniques. Innovative forms of instrumentation and nonstandard use of instruments.

PREREQ: MTC 535, 536

### **MTC 636 - Advanced Orchestration**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring

Contemporary techniques. Innovative forms of instrumentation and nonstandard use of instruments.

PREREQ: MTC 535, 536

### **MTC 646 - Advanced Tonal Analysis**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring

Tonal harmony and its extensions from circa 1830 to the present. Introduction to Schenker analysis.

Required of all graduate students in the School of Music.

### **MTC 651 - Composition Seminar, Graduate**

#### ***Setnor School of Music***

0 credit(s) Every semester

Listening and discussion of creative issues and strategies in music composition. Two to four presentations by visiting composers per semester.

Required of all graduate composition majors.

### **MTC 652 - Composition Seminar, Graduate**

#### ***Setnor School of Music***

0 credit(s) Every semester

Listening and discussion of creative issues and strategies in music composition. Two to four presentations by visiting composers per semester.

Required of all graduate composition majors.

### **MTC 655 - Composition**

#### ***Setnor School of Music***

1-2 credit(s) Every semester

Individual instruction emphasizing larger forms and works for larger ensembles.

### **MTC 656 - Composition**

#### ***Setnor School of Music***

1-2 credit(s) Every semester

Individual instruction emphasizing larger forms and works for larger ensembles.

### **MTC 657 - Contemporary Techniques in Composition**

#### ***Setnor School of Music***

2 credit(s) Upon sufficient interest

Styles of representative twentieth-century composers. Techniques through composition.

### **MTC 690 - Independent Study**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest

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.

Repeatable

### **MTC 746 - Advanced Topics in Music Theory**

#### ***Setnor School of Music***

3 credit(s) Upon sufficient interest

Intensive study and class discussion of contemporary writings in music theory. Students deliver an oral presentation on important periodical articles and complete a major analysis project.

PREREQ: MTC 645

### **MTC 751 - Composition Seminar, Graduate**

#### ***Setnor School of Music***

0 credit(s) Every semester

Listening and discussion of creative issues and strategies in music composition. Two to four presentations by visiting composers per semester. Required of all graduate composition majors.

## GRADUATE COURSE CATALOG

### **MTC 752 - Composition Seminar, Graduate**

#### ***Setnor School of Music***

0 credit(s) Every semester  
Listening and discussion of creative issues and strategies in music composition. Two to four presentations by visiting composers per semester. Required of all graduate composition majors.

### **MTC 755 - Composition**

#### ***Setnor School of Music***

1-2 credit(s) Every semester  
Continuation of MTC 655,656.

### **MTC 756 - Composition**

#### ***Setnor School of Music***

1-2 credit(s) Every semester  
Continuation of MTC 655,656.

### **MTC 997 - Thesis in Music Theory**

#### ***Setnor School of Music***

0-3 credit(s) Upon sufficient interest  
Repeatable

## **Music Education**

### **MUE 510 - Practicum in Children's Choir**

#### ***Setnor School of Music***

1-3 credit(s)  
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**

#### ***Setnor School of Music***

3 credit(s)  
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**

#### ***Setnor School of Music***

2 credit(s) At least 1x fall or spring  
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**

#### ***Setnor School of Music***

1-2 credit(s)  
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.

### **MUE 604 - World Music and the Interdisciplinary Curriculum**

#### ***Setnor School of Music***

3 credit(s) Only during the summer  
Crosslisted with: EDU 604  
Examination of historical and social perspectives of world music in diverse cultural contexts. Strategies for teachers to develop and facilitate interdisciplinary curricula through examination of materials and resources featuring music from around the world.

### **MUE 610 - Field Experience in Music Education**

#### ***Setnor School of Music***

1-2 credit(s) Every semester  
Double Numbered with: MUE 310  
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.  
Repeatable 1 time(s), 2 credits maximum

### **MUE 611 - Assessment in Music Education**

#### ***Setnor School of Music***

1 credit(s) At least 1x fall or spring  
Crosslisted with: EDU 611  
Examines a diverse selection of assessment methods for student learning within music education settings. Strategies for future instruction planning; instructional adaptations based on data gathered through teacher-created assessment tools.

### **MUE 614 - General Music in the Inclusive Classroom**

#### ***Setnor School of Music***

3 credit(s)

### **MUE 615 - Introduction to Research in Music**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring

Methods and techniques. Literature and research studies. Bibliographical materials and application of appropriate writing styles. Open to all music majors; nonmusic majors may elect with permission of instructor.

### **MUE 616 - Psychological and Sociological Aspects of Music**

#### ***Setnor School of Music***

3 credit(s) Irregularly  
Introduction to acoustics, the ear and hearing, musical systems, and psychosociophysiological processes involved in musical behavior. Open to all music majors; non-music majors with permission of instructor.

### **MUE 617 - Jazz Ensemble Techniques**

#### ***Setnor School of Music***

2 credit(s)  
Double Numbered with: MUE 415

### **MUE 618 - Current Problems in Music Education**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring  
Major topics and problems. Current trends. Open to all music majors; nonmusic majors may elect with permission of instructor.

### **MUE 621 - Teaching of Voice for Schools**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 321  
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 623 - Teaching of Percussion Instruments**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 423  
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 625 - Teaching of String Instruments**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring

## GRADUATE COURSE CATALOG

Double Numbered with: MUE 325  
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.  
Repeatable 1 time(s), 4 credits maximum

### **MUE 626 - Teaching of Brass Instruments**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 326  
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.  
Repeatable 1 time(s), 4 credits maximum

### **MUE 627 - Teaching of Woodwind Instruments I**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 327  
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 628 - Teaching of Woodwind Instruments II**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 328  
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 633 - Music in the Elementary School**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 333  
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.

### **MUE 634 - Methods and Materials in General Music**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 334  
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 670 - Experience Credit**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest  
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.

### **MUE 690 - Independent Study**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest  
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.  
Repeatable

### **MUE 700 - Selected Topics**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest  
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

### **MUE 711 - Advanced Choral Teaching**

#### ***Setnor School of Music***

3 credit(s) Upon sufficient interest  
Problems of choral training and organization relevant to school groups. Choral literature in terms of teaching. Open to all music majors; nonmusic majors may elect with permission instructor.

### **MUE 712 - Advanced Instrumental Teaching**

#### ***Setnor School of Music***

3 credit(s) Upon sufficient interest  
Problems of instrumental training and organization relevant to bands and orchestras in schools. Instrumental music literature in terms of teaching. Musical content and how to teach it. Open to all music majors; nonmusic majors may elect with permission of instructor.

### **MUE 715 - Administration and Supervision in Music Education**

#### ***Setnor School of Music***

3 credit(s) Irregularly

Aims and procedures in administration and supervision of school music programs. Scheduling. Evaluation and improvement of instruction. Budgets. Public relations. Research problems in planning and executing a modern program.

### **MUE 716 - Curriculum Development in Music**

#### ***Setnor School of Music***

3 credit(s) Irregularly  
Instructional design in teaching music. Systematic processes in curriculum and course design, use and evaluation of objectives, selection and construction of instructional materials, and methods of curriculum evaluation. Open to all music majors; non-music majors may elect with permission of instructor.

### **MUE 731 - Mngmt in Music Teaching**

#### ***Setnor School of Music***

1-2 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 431

### **MUE 735 - Choral Rehearsal Techniques**

#### ***Setnor School of Music***

2-3 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 435  
Principles and techniques of conducting and rehearsing choral groups. Music literature for typical choral group in schools.

### **MUE 737 - Instrumental Rehearsal Techniques in Music Education**

#### ***Setnor School of Music***

2-3 credit(s) At least 1x fall or spring  
Double Numbered with: MUE 437  
Principles and techniques of conducting and rehearsing instrumental groups. Music literature for typical instrumental groups in schools.

### **MUE 770 - Experience Credit**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest  
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.

### **MUE 970 - Experience Credit**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest  
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.

## GRADUATE COURSE CATALOG

### **MUE 990 - Independent Study**

#### ***Setnor School of Music***

1-6 credit(s) Upon sufficient interest  
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.

### **MUE 997 - Master Thesis**

#### ***Setnor School of Music***

1-6 credit(s) Every semester

## **Music Industry**

### **MUI 610 - Soyars Leadership Lecture Series**

#### ***Setnor School of Music***

1 credit(s)  
Double Numbered with: MUI 310  
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.  
Repeatable 7 time(s), 8 credits maximum

## **Oboe**

### **OBO 530 - Oboe Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **OBO 535 - Oboe Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **OBO 536 - Oboe Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **OBO 635 - Oboe Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **OBO 636 - Oboe Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **OBO 735 - Oboe Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **OBO 736 - Oboe Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Organ**

### **ORG 510 - Organ Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **ORG 515 - Organ Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **ORG 516 - Organ Instruction**

#### ***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **ORG 615 - Organ Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For Performance majors.

### **ORG 616 - Organ Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For Performance majors.

### **ORG 715 - Organ Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For Performance majors.

### **ORG 716 - Organ Instruction**

#### ***Setnor School of Music***

1-6 credit(s) Every semester  
For Performance majors.

## **Pedagogy of Theory**

### **PDG 519 - Vocal Pedagogy**

#### ***Setnor School of Music***

2 credit(s) At least 1x fall or spring  
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**

#### ***Setnor School of Music***

1 credit(s) Irregularly  
Philosophy and psychology in piano teaching  
through analysis and performance of elementary  
and secondary materials. Music by recognized  
composers.

### **PDG 522 - Vocal Pedagogy II**

#### ***Setnor School of Music***

2 credit(s) At least 1x fall or spring  
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**

#### ***Setnor School of Music***

2 credit(s) Irregularly  
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**

#### ***Setnor School of Music***

1-2 credit(s) Irregularly  
Principles, methods, and problems associated  
with teaching string instruments to young people  
individually and in groups.  
Repeatable

### **PDG 538 - Violin Pedagogy**

#### ***Setnor School of Music***

1 credit(s) Irregularly  
Violin teaching: lecture on procedure for both  
class and individual instruction, attendance  
and observation at regular class meetings, and  
practical teaching by pedagogy students.

### **PDG 625 - Pedagogy of Theory**

#### ***Setnor School of Music***

3 credit(s) At least 1x fall or spring  
Teaching of music theory. Various standard texts.  
Contemporary trends. Supervised teaching at  
freshman and sophomore levels.

## **Performance Recital**

### **PER 994 - Graduate Recital I**

#### ***Setnor School of Music***

0-1 credit(s) Every semester  
Solo recital required of all matriculated students

# GRADUATE COURSE CATALOG

in M.Mus. program with performance major.

## PER 995 - Graduate Recital II

### *Setnor School of Music*

0-1 credit(s) Every semester

Ensemble recital or second solo recital, depending upon which is most appropriate to student's major area of specialization. Matriculated students in M. Mus. program.

## PER 996 - Lecture Recital

### *Setnor School of Music*

0-1 credit(s) Every semester

Lecture demonstration recital on topic appropriate to the candidate's major area of specialization.

## Piano

### PNO 520 - Performance Honors in Piano

#### *Setnor School of Music*

1-4 credit(s) Every semester

For non-music students.

Repeatable 1 time(s), 4 credits maximum

### PNO 525 - Piano Instruction

#### *Setnor School of Music*

1-4 credit(s) Every semester

For music students.

### PNO 526 - Piano Instruction

#### *Setnor School of Music*

1-4 credit(s) Every semester

For music students.

### PNO 600 - Selected Topics

#### *Setnor School of Music*

1-6 credit(s) Upon sufficient interest

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### PNO 625 - Piano Instruction

#### *Setnor School of Music*

1-6 credit(s) Every semester

For performance majors.

### PNO 626 - Piano Instruction

#### *Setnor School of Music*

1-6 credit(s) Every semester

For performance majors.

### PNO 725 - Piano Instruction

#### *Setnor School of Music*

1-6 credit(s) Every semester

For performance majors.

### PNO 726 - Piano Instruction

#### *Setnor School of Music*

1-6 credit(s) Every semester

For performance majors.

## Percussion

### PRC 510 - Percussion Instruction

#### *Setnor School of Music*

1-4 credit(s) Every semester

For non-music students.

Repeatable 1 time(s), 4 credits maximum

### PRC 515 - Percussion Instruction

#### *Setnor School of Music*

1-4 credit(s) Every semester

For music students.

### PRC 516 - Percussion Instruction

#### *Setnor School of Music*

1-4 credit(s) Every semester

For music students.

### PRC 615 - Percussion Instruction

#### *Setnor School of Music*

1-6 credit(s) Every semester

For performance majors.

### PRC 616 - Percussion Instruction

#### *Setnor School of Music*

1-6 credit(s) Every semester

For performance majors.

### PRC 715 - Percussion Instruction

#### *Setnor School of Music*

1-6 credit(s) Every semester

For performance majors.

### PRC 716 - Percussion Instruction

#### *Setnor School of Music*

1-6 credit(s) Every semester

For performance majors.

## Recording and Allied Entertainment

### RAE 500 - Selected Topics

#### *Setnor School of Music*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### RAE 505 - Entertainment Industry Exploration

#### *Setnor School of Music*

1-3 credit(s) At least 1x fall or spring

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.

Repeatable 3 time(s), 12 credits maximum

### RAE 600 - Selected Topics

#### *Setnor School of Music*

1-6 credit(s) Irregularly

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable

### RAE 601 - Audio Arts Graduate Survey

#### *Setnor School of Music*

3 credit(s) Only during the summer

Foundational widescreen view of the business of audio and music in entertainment media. Creative processes, industry careers, revenue streams, and studio theory will be introduced.

### RAE 610 - Audio Arts Colloquium

#### *Setnor School of Music*

1 credit(s) Every semester

A three-phase course taught in one-credit increments designed to give Audio Arts students a grounding in the fields of culture of audio arts and music-related media.

Repeatable 2 time(s), 3 credits maximum

### RAE 675 - Audio Arts Industry Practicum

#### *Setnor School of Music*

3 credit(s) Only during the summer

Students work in a professional audio arts setting for a minimum of six weeks, while participating in online discussions and doing a research paper on the industry.

### RAE 690 - Independent Study

#### *Setnor School of Music*

1-6 credit(s) Upon sufficient interest

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.

Repeatable

## Recorder

### RDR 520 - Recorder Instruction

#### *Setnor School of Music*

1-4 credit(s) Every semester

For non-music students.



## GRADUATE COURSE CATALOG

### **RDR 525 - Recorder Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **RDR 526 - Recorder Instruction**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

## **Saxophone**

### **SXP 550 - Saxophone/Non Music Maj**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **SXP 555 - Saxophone/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **SXP 556 - Saxophone/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **SXP 655 - Saxophone/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **SXP 656 - Saxophone/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **SXP 755 - Saxophone/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **SXP 756 - Saxophone/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

## **Trombone**

### **TRB 540 - Trombone/Non Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **TRB 545 - Trombone/Music Major**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **TRB 546 - Trombone/Music Major**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **TRB 645 - Trombone/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **TRB 646 - Trombone/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **TRB 745 - Trombone/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **TRB 746 - Trombone/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Trumpet**

### **TRP 510 - Trumpet/Non Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **TRP 515 - Trumpet/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For music students.

### **TRP 516 - Trumpet/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For music students.

### **TRP 615 - Trumpet/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **TRP 616 - Trumpet/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **TRP 715 - Trumpet/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **TRP 716 - Trumpet/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Violoncello**

### **VCO 530 - Cello/Non Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **VCO 535 - Cello/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **VCO 536 - Cello/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **VCO 635 - Cello/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VCO 636 - Violoncello/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VCO 735 - Cello/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VCO 736 - Cello/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Viola**

### **VLA 520 - Viola/Non Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

## GRADUATE COURSE CATALOG

### **VLA 525 - Viola/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **VLA 526 - Viola/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **VLA 625 - Viola/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VLA 626 - Viola/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VLA 725 - Viola/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VLA 726 - Viola/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Violin**

### **VLN 510 - Violin/Non Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **VLN 515 - Violin/Music Major**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **VLN 516 - Violin/Music Major**

***Setnor School of Music***

1-4 credit(s) Every semester  
For music students.

### **VLN 615 - Violin/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VLN 616 - Violin/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VLN 715 - Violin/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VLN 716 - Violin/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **Voice**

### **VOC 510 - Voice/Non Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For non-music students.  
Repeatable 1 time(s), 4 credits maximum

### **VOC 515 - Voice/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **VOC 516 - Voice/Music Majors**

***Setnor School of Music***

1-4 credit(s) Every semester  
For performance majors.

### **VOC 520 - Vocal Coaching**

***Setnor School of Music***

1-2 credit(s) Every semester  
Private coaching of vocal repertoire for singers  
and pianists. Music majors only.  
Repeatable 7 time(s), 16 credits maximum

### **VOC 615 - Voice/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VOC 616 - Voice/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VOC 625 - Grad Voc Prfrmnc Sem I**

***Setnor School of Music***

1 credit(s) Irregularly  
Weekly seminar in studio and department-wide  
sessions on those aspects of being a professional  
singer not covered in normal coursework or  
lessons.  
Repeatable 3 time(s), 4 credits maximum

### **VOC 626 - Grad Voc Prfrmnc Sem II**

***Setnor School of Music***

1 credit(s) Irregularly  
Weekly seminar in studio and department-wide

sessions on those aspects of being a professional  
singer not covered in normal coursework or  
lessons.

Repeatable 3 time(s), 4 credits maximum

### **VOC 627 - Grad Voc Prfrmnc Sem III**

***Setnor School of Music***

1 credit(s) Irregularly  
Weekly seminar in studio and department-wide  
sessions on those aspects of being a professional  
singer not covered in normal coursework or  
lessons.

### **VOC 628 - Grad Voc Prfrmnc Sem IV**

***Setnor School of Music***

1 credit(s) Irregularly  
Weekly seminar in studio and department-wide  
sessions on those aspects of being a professional  
singer not covered in normal coursework or  
lessons.

### **VOC 715 - Voice/Music Major**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

### **VOC 716 - Voice/Music Majors**

***Setnor School of Music***

1-6 credit(s) Every semester  
For performance majors.

## **College of Visual and Performing Arts Faculty**

James S. Abbott, Professor of Practice; Sound  
Recording Technology Program  
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

Janet H. Ambrose, Associate Professor  
M.A., Syracuse University, 1990  
Textile Design

Richard Balestra, Part-time Instructor  
M.M., Ithaca College, 1992  
Jazz Guitar

Kyle Bass, Part-time Instructor  
M.F.A., Goddard College, 2006  
Playwriting, Theater History

Cooper Battersby, Assistant Professor  
M.F.A., University of Illinois at Chicago, 2003  
Art Video, TRM core/selected topics

Kathleen Baum, Part-time Instructor

## GRADUATE COURSE CATALOG

- M.F.A., Syracuse University, 2000  
Movement-based Theater, Meyerhold's Theatrical Biomechanics
- Peter Beasecker, Associate Professor  
M.F.A., Alfred University, 1987  
Ceramics
- Sharif Bey, Assistant Professor  
Ph.D., Pennsylvania State University  
Art Education
- Martha Blake, Assistant Professor  
M.F.A., Syracuse University  
Illustration
- Muriel Bodley, Part-time Instructor  
M.M., SUNY Potsdam Crane School of Music  
Music Education
- David Bowman, Part-time Instructor  
B.F.A., Syracuse University, 1993  
Lighting Design, Theater Technology
- Cornelia Brewster, Part-time Instructor  
M.M., University of Wisconsin-Madison, 1965  
Flute
- Janet Brown, Professor of Practice  
M.M., 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  
M.F.A., University of California, San Diego  
Acting, Directing
- Deette Bunn, Part-time Instructor  
M.M., University of Washington, 1982  
Harp
- Don Buschmann, Part-time Instructor  
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
- Elizabeth Carioti, Part-time Instructor  
B.S., Syracuse University, 2011  
Music and Entertainment Industries
- Donald Carr, Professor  
M.F.A., Cranbrook Academy of Art, 1992  
Industrial and Interaction design
- Edward Castilano, Part-time Instructor  
M.M., Syracuse University, 2003  
Double Bass
- Carla Cesare, Assistant Professor  
Ph.D., University of Northumbria, 2013  
Design History
- Bonnie Choi, Part-time Instructor  
D.M.A., University of Michigan, 1993  
Harpsichord, Piano, Piano Class
- Brian Cimmet, Assistant Professor  
B.A., Wesleyan University  
Musical Theater
- Gerardine 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
- Dana Cloud, Professor  
Ph.D., The University of Iowa, 1992  
Communication and Rhetorical Studies
- Felix Cochren, Associate Professor  
Carnegie-Mellon University  
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
- Michael Coldren, Part-time Instructor  
M.M., Arizona State University, 1988  
Tuba, Euphonium
- Diana Coles, Part-time Instructor  
M.A., University of Missouri, Kansas City, 1967  
Theater Management
- Jan Cohen-Cruz, Professor  
Ph.D., New York University, 1994  
Drama
- 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, Part-time Instructor  
B.A., University of Illinois at Chicago  
Museum Studies
- Stephen Cross, Associate Professor
- M.F.A., Dell'Arte International School of Physical Theatre  
Movement for Actors
- 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  
Communications Design
- Gretchen Darrow-Crotty, Part-time Instructor  
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.M., University of Missouri-Kansas City, 1998  
Drumset, Jazz Drumset, Jazz Combos, Jazz Improvisation, Brazilian Ensemble, Music Education
- William DiCosimo, Assistant Professor  
M.M., University of Southern California, 1976  
Music Industry, Jazz Studies
- 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
- Emily Dittman, Part-time Instructor  
M.A., M.S., Syracuse University  
Museum Studies
- Deborah Dohne, Associate Professor  
M.F.A., Ohio State University, 1990  
Dimensional Arts, Sculpture
- Marion Dorfer, Associate Professor  
M.F.A., Syracuse University, 1992  
Surface Pattern Design
- Joseph Downing, Associate Professor  
D.M., Northwestern University, 1985  
Composition, Music Theory
- Boryana Dragoeva, Assistant Professor

## GRADUATE COURSE CATALOG

Ph.D., Rensselaer Polytechnic Institute  
Bio-Art, Experimental Film and Video Art,  
Performance Art

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 Dudczak, Associate Professor  
Ph.D., University of Kansas, 1984  
Communication and Rhetorical Studies

Zorana Dunham, Assistant Professor  
BFA Interior Design Syracuse University  
Interior Design

Dennis Earle, Assistant Professor  
Masters Architecture U of PA - Pitt  
Interior Design

Jonathan English, Part-time Assistant Professor  
M.M., Eastman School of Music, 1984  
Voice

Bradley P. Ethington, Professor; Director, University  
Bands  
D.M.A., University of Texas at Austin, 1995  
Conducting, Wind Ensemble

James Fathers, Professor; Iris Magidson Endowed  
Chair of Design Leadership Chair  
Ph.D., University of Wales, 2012  
Design

Kathleen Feyh, Assistant Professor  
Ph.D., University of Texas at Austin, 2012  
Communication and Rhetorical Studies

Steven Frank, Part-time Instructor  
M.M., Youngstown State University, 1978  
Music Education

Melissa Gardiner, Part-time Instructor  
M.M., The Julliard School, 2010  
Jazz Trombone

Jon Garland, Part-time Instructor  
B.M., The Julliard School, 1995  
Horn

Jeff Glendenning, Assistant Professor  
B.F.A., Syracuse University  
Communications Design

Daniel S. Godfrey, Professor  
Ph.D., University of Iowa, 1982  
Composition, Music Theory

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, 2009  
Conversation Analysis, Discourse Analysis

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

Lynn Greenky, Assistant Professor  
J.D., Emory University School of Law, 1982  
Argumentation and Advocacy, Legal  
Communication

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

Rachel Hall, Associate Professor  
Ph.D., University of North Carolina at Chapel Hill,  
2004  
Communication and Rhetorical Studies

Bob Halligan Jr., Part-time Instructor  
B.A., Hamilton College, 1975  
Songwriting

Michael Hanley, Part-time Instructor  
M.M., The Pennsylvania State University, 2013  
Voice

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 Havenhand, Associate Professor  
Ph.D., Virginia Commonwealth University, 2007  
Interior Design, Design History

Lori Hawke, Assistant Professor  
M.F.A., Syracuse University  
Jewelry and Metalsmithing

Denise Heckman, Associate 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  
M.F.A., San Francisco State University  
Film

Jonathan Herter, Part-time Instructor  
B.A., SUNY Geneseo  
Sound Design

Amy 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.M., Julliard School of Music, 1982  
Piano

David Hicock, Part-time Instructor  
B.F.A., Syracuse University, 1972  
Film

Gail Hoffman, Part-time Assistant Professor  
M.F.A., Indiana University, 1980  
2-D Creative Processes

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

Stephanie James, Professor  
M.F.A., Newcastle University 1982  
Art

Arthur D. Jensen, Professor  
Ph.D., University of Massachusetts, 1982  
Organizational Communication, Small Group  
Communication

Eric Johnson, Associate Professor  
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

Patricia Johnson, Assistant Professor  
M.A., Central Saint Martins College of Art and  
Design, 2006  
Design

Patrick M Jones, Professor  
Ph.D., Pennsylvania State University, 2002  
Music Education

Juan Juarez, Associate Professor  
M.F.A., University of Wisconsin-Milwaukee

## GRADUATE COURSE CATALOG

- 2-D Creative Process  
Fred Karpoff, Professor  
M.F.A., Peabody Conservatory of Music, 1992  
Piano, Chamber Music, Vocal Coaching
- Rebecca Karpoff, Assistant Professor  
D.M.A., Eastman School of Music  
Voice
- 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, Part-time Instructor  
M.F.A., North Carolina School of the Arts, 2000  
Design and costume technology
- Holly LaGrow, Part-time Instructor  
B.S., Ball State University; Scenic Art Internship,  
Juilliard School  
Scene painting
- Kevin Larmon, Assistant Professor  
B.F.A., State University of New York at Binghamton,  
1978  
Painting
- Anne Laver, Assistant Professor; University  
Organist  
D.M.A., Eastman School of Music, 2011  
Organ
- 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
- Andrea Leigh-Smith, Assistant Professor  
Dance
- Matthew "Zeke" Leonard, Assistant Professor  
M.F.A., Rhode Island School of Design, 2008  
Design
- Jude Lewis, Associate Professor  
M.F.A., State University of New York at Albany,  
1989  
Sculpture, Dimensional Arts
- David Lowenstein, Assistant Professor  
B.F.A., Syracuse University, 1984  
Musical theater
- Patrick MacDougall, Part-time Instructor  
Recording Engineering Program Degree - Dick  
Grove School of Music, 1987  
Sound Recording
- Celia Madeoy, Assistant Professor  
M.F.A., DePaul University, 1991  
Drama
- Gregory Marinic, Assistant Professor  
M.Arch, University of Maryland  
Interior Design
- 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
- Katherine McGerr, Assistant Professor  
M.F.A., Yale School of Drama  
Drama
- Julia McKinstry, Part-time Instructor  
M.F.A., Carnegie Mellon University, 1981  
Voice
- Judith Meighan, Associate Professor  
Ph.D., Columbia University, 1997  
Art History
- Alexis Mendez, Assistant Professor  
Film
- Justin J. Mertz, Part-time Instructor; Assistant  
Director, University Bands; Director, Athletic Bands  
M.M., Syracuse University, 2003  
Marching Band, Symphonic Band, Music  
Education
- Kenneth Meyer, Part-time Instructor  
D.M.A., Eastman School of Music, 2000  
Guitar, Guitar Ensemble
- Kathryn Miranda, Part-time Instructor  
M.AmSAT, American Center for the Alexander  
Technique, 1990  
Alexander Technique
- Richard Montalbano, Part-time Instructor  
Jazz Piano
- Charles Morris III, Professor  
Ph.D., Pennsylvania State University, 1998  
Communication and Rhetorical Studies
- Edward Morris, Professor of Practice  
Transmedia
- Carmel Nicoletti, Part-time Instructor  
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 and Entertainment Industries
- William Padgett, Associate Professor  
B.F.A., Washington University, 1970  
Communications Design
- Vasilios Papaioannu, Assistant Professor  
M.F.A.  
Film
- JuneKyu Park, Assistant Professor  
M.F.A., Syracuse University, 2015  
Film
- Kendall Phillips, Professor  
Ph.D., Pennsylvania State University, 1995  
Rhetoric, American film, Public Sphere
- Alina Plourde, Part-time Instructor  
D.M.A. University of Illinois, 2000  
Oboe
- Darryl Pugh, Part-time Instructor  
M.M., Eastman School of Music, 2000  
Jazz Double Bass
- Gregory Quick, Part-time Instructor  
B.M., University of Michigan, 1976  
Bassoon
- 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, 1987  
Illustration
- John Raschella, Part-time Instructor  
Artist Diploma, Curtis Institute of Music  
Trumpet
- Sarah Gillen Redmore, Assistant Professor  
B.F.A., Syracuse University, 1990  
Interior Design
- David M. Rezak, Professor of Practice; Director,  
Bandier Program  
Music industry
- 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, 1997  
Voice
- James Rolling, Jr, Professor  
Ed.D., Ed.M., Columbia University, Teachers  
College  
Art Education
- Annina Ruest, Assistant Professor  
M.F.A., University of California, San Diego  
Computer Art and Animation
- Julianna Sabol, Associate Professor  
D.M.A., University of Cincinnati, 1992  
Voice
- Anthony Salatino, Associate Professor  
B.F.A., Juilliard School, 1969

## GRADUATE COURSE CATALOG

- Ballet, tap, performance styles, movement  
Andrew Saluti, Part-time Instructor  
M.F.A., Louisiana State University, 2002  
Drawing
- Sarah Saulson, Part-time Instructor  
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
- Ralf Schneider, Assistant Professor  
M.Des., University of Cincinnati, 2005  
Industrial and Interaction Design
- Abel Searor, Part-time Instructor  
M.M., Syracuse University, 2010  
Piano Class
- Owen Shapiro, Professor  
M.F.A., Brooklyn College, 1966  
Film, Media Theory
- Tom Sherman, Professor  
B.F.A., Eastern Michigan University, 1970  
Video, Media Theory
- Joanna Spitzner, Associate Professor  
M.F.A., Ohio State University, 2001  
Time Arts
- Randall Steffen, Part-time Instructor  
M.F.A., Yale University  
Technical Design and Production
- Jeffrey Stockham, Part-time Instructor  
M.M., Eastman School of Music, 1982  
Jazz Trumpet, Horn
- Emily Stokes-Rees, Assistant Professor  
DPhil, University of Oxford  
Museum Studies
- Miso Suchy, Associate Professor  
M.F.A., Academy of Performing Arts, Bratislava,  
Czechoslovakia, 1990  
Film
- Barbara Tagg, Part-time Instructor  
Ed.D., Syracuse University, 1997  
Music Education, Women's Choir
- 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, Assistant Professor  
M.M., Syracuse University, 1996  
Piano, Piano Class
- Nguyen Long-Nam To, Assistant Professor  
M.F.A.  
Fashion Design
- Samuel Van Aken, Associate Professor  
M.F.A., University of North Carolina, Chapel Hill  
Sculpture
- Karen Veverka, Part-time Instructor  
M.M., Syracuse University, 1988  
Violin
- Emily Vey Duke, Associate Professor  
M.F.A., University of Illinois at Chicago  
Department of Transmedia, Art Video, TRM core/  
selected topics
- 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
- Matthew Warne, Part-time Instructor  
Ph.D., Brown University, 2013  
Music Theory
- John Warren, Associate Professor; Director, Choral  
Activities  
D.M.A, University of Miami  
University Singers, Hendricks Chapel Choir,  
Conducting, Choral Literature
- Carolyn Weber, Part-time Instructor  
M.Mus, Syracuse University, 1990  
Voice
- Jeffrey Welcher, Part-time Instructor,  
M.M.E., West Chester University, 1982  
Windjammer Vocal Jazz Ensemble, Jazz Voice,  
Music Education
- Joseph Whelan, Part-time Instructor  
B.A., Empire State College  
Theater History
- Christopher Wildrick, Associate Professor  
M.F.A., University of Wisconsin-Madison  
2-D Creative Process
- David Wilber, Part-time Instructor  
M.S., Syracuse University, 1986  
Music Education
- 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
- Gregory Wood, Part-time Instructor  
B.M., Cincinnati College, Conservatory of Music,  
1978  
Cello, String Chamber Ensembles
- Robert Wysocki, Assistant Professor  
M.F.A., Yale University, 1995  
Sculpture
- Rebecca Xu, Assistant Professor  
M.F.A., Syracuse University  
Computer Art
- Stephen Zaima, Professor  
M.F.A., University of California, Davis, 1971  
Painting, Art Theory
- Ralph Zito, Professor, Chair  
A.B., Harvard University  
Dialect, Text, Voice

# University College

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.

## 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.

## Graduate Programs

### Part-Time Graduate Education at UC

If you would like to pursue a graduate degree but are unsure of the area of study, meet with a UC academic advisor to get an overview of SU programs. You will then be referred to the appropriate academic department. If you want to take SU graduate courses as a non-matriculated graduate student, you must enroll through UC.

### Important Note for Non-matriculated Graduate Students

The SU Graduate School's regulations strongly

encourage anyone enrolling at the graduate level to take no more than two courses (six credits) before being admitted to a graduate program of study. There are limitations on credits completed on a non-matriculated basis that may later be applied toward a specific graduate program. Students should consult the specific academic department. If you are about to enroll for courses that will take you beyond an accumulated total of 12 graduate credits (four three-credit courses), you should (1) take immediate steps to become a matriculated degree candidate, and (2) secure written permission from the appropriate academic department to continue to take its graduate courses as a non-matriculated student.

For an application for graduate study, call 315-443-4492 or visit the web site.

## 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, or visit the web site.

### Summer Start

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, 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, 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 Laws). 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 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)**

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.

See the current issue of Academic Rules for a complete statement of University policies and requirements.

## **University College Faculty**

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)

1 Forestry Drive, Syracuse, NY 13210  
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.

## GRADUATE COURSE CATALOG

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 engineering.

Sustainable Construction Management and Wood Science (HEGIS Code 0999) with areas of study in construction management, sustainable construction and wood science.