

**GRADUATE
COURSE CATALOG**

2 0 1 7 - 2 0 1 8

Syracuse University

Graduate Course Catalog Table of Contents	
2	Welcome and Course Catalog Purpose
3	General Information
3	About Syracuse University
3	Tuition and Fees
3	Academic Calendar
3	Admissions and Financial Aid
4	Hours of Operation
4	University Facilities
4	Library
5	Information Technology and Services
5	Health Services
6	Career Services
6	Syracuse University Internship Opportunities
6	Interdisciplinary and Specialized Study
7	The Center for Advanced Systems and Engineering (CASE)
7	The Graduate School
7	Syracuse University Graduation Rate
8	Adjunct Faculty and Teaching Assistants
8	Syracuse University Leadership
9	Student Privacy Rights (FERPA)
10	Student Grievance Processes
10	Distance Learning Students - Information
13	Nondiscrimination and EEO Policy
14	Campus Safety
14	Academic Rules
18	Academic Offerings
23	Guide To Reading Course Descriptions
25	School of Architecture
34	College of Arts & Sciences
125	School of Education
180	College of Engineering and Computer Science
246	David B. Falk College of Sport and Human Dynamics
247	Human Development & Family Science
253	Marriage and Family Therapy
257	Public Health, Food Studies and Nutrition
270	School of Social Work
275	Sport Management
293	School of Information Studies
322	College of Law
343	Martin J. Whitman School of Management
377	Maxwell School of Citizenship and Public Affairs
428	S.I. Newhouse School of Public Communications
460	College of Visual and Performing Arts
461	Communication and Rhetorical Studies
462	Department of Transmedia
464	School of Art
465	School of Design
468	Setnor School of Music
500	University College
502	SUNY-ESF (Partner Institution)

Catalog Home

Welcome to a digital world of academic offerings that will shape your student experience here. Inside Syracuse University's searchable online course catalog, you'll find detailed information about all of the schools, colleges, and hundreds of distinct degree programs offered by Syracuse University, including descriptions of the faculty and related courses. You also will discover many special opportunities and resources to enhance your academic experience, including study abroad programs, centers for interdisciplinary learning, and immersion opportunities across the U.S. and around the world.

Some of you no doubt already are familiar with the online course catalog. But whether you have used it before or if this is your first time consulting it, we are certain you will discover new opportunities to inspire you, to challenge you, and to shape the direction you take and the choices you make on your academic journey. We want you to thrive during your time here and beyond. The robust and diverse array of courses described in this catalog demonstrate our commitment to providing you with an evolving, multifaceted, and enriching experience as you pursue your unique personal, 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.

Please be aware that the information concerning academic requirements, courses, and programs of study in the catalog does not establish an irrevocable contract between the student and the University. The University can change, discontinue, or add academic requirements, courses, and programs of study at any time, without notice. Of course, every effort will be made to provide timely notice to students in order to help in the planning process. It is the responsibility of the individual student to confirm that all appropriate degree requirements are met.

I encourage you to explore this catalog for opportunities that will make your Syracuse University experience truly unique, exciting, valuable, and unforgettable.

Michele Wheatly
Vice Chancellor and Provost

General Information

About Syracuse University

Syracuse University, located in the City of Syracuse in the center of New York State, is a private coeducational university comprising 13 undergraduate and graduate schools and colleges. Founded in 1870, the University today has an enrollment of more than 21,000 undergraduates and graduate 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.

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.

Academic Calendar

Academic Calendar for 2017-18

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. Visit our web site at admissions.syr.edu

Financial Aid

To receive information about financial aid, please contact the Office of Financial Aid and Scholarship Programs located at 200 Bowne Hall. Reach us by telephone at 315-443-1513, or send an e-mail to <http://financialaid.syr.edu/> or <mailto:financialaid@syr.edu>. 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 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

General Information

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://supolicies.syr.edu/facilities/premises.htm>

University Facilities

Syracuse University students learn, study, and play among the 300 buildings on 900 acres that make up the campus. The University's 147-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, Sims 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 primarily in Maxwell Hall and Eggers Hall with additional facilities in Lyman 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 is primarily located in the Falk College Complex. The college's 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 Sims Hall, the Henry Health Center at 111 Waverly, 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, and the Fisher Center, 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.

Libraries

On the web at library.syr.edu, the Syracuse University Libraries are an active partner in the teaching, learning, and research mission of the University. Serving over one million visitors annually, 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

General Information

reference and research help, available in-person, via email, chat, text, or phone.

The Libraries' diverse collections include more than 4.6 million printed volumes, over 170,000 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 BlackStone LaunchPad on the first floor of Bird Library is a new experiential entrepreneurship program open to students, faculty, staff, and alumni. Other new partnerships include the Center for Learning and Student Success and the Digital Scholarship Space.

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.
- Syracuse University Press
- University Archives, including the Pan Am 103 Archives

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

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; the SU Mobile app; Lynda.com (access to online education offering thousands of video courses in software, creative, and business skills); digital publishing; online teaching and learning; SU MakerSpace, GamerLab, and Digital Scholarship Space; 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 100 GB of file storage and for creating personal Web pages. Blackboard, an online learning environment, enables anytime, anywhere student engagement with almost 4,200 courses. 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 website 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 website 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.
- 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 students. SUHS provides student-centered ambulatory health care. On campus services include:

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

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 community. 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.

All full-time matriculated students will need to provide proof they have health insurance in a plan that is US based, meets the criteria of the Affordable Care Act and has coverage beyond urgent and emergency care in the Syracuse area.

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

Immunization Requirements

Proof of immunity to measles, mumps, and rubella (which may be obtained by contacting your high school or primary care physician)

General Information

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

Career Services

Suite 235, Schine Student Center
(315) 443-3616
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,

General Information

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 Center for Advanced Systems and Engineering (CASE)

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.

CASE serves as an access point for industry to engage Syracuse University, supporting programs for students, a prototype development lab and fleet of UAVs/drones, and university-industry collaborative 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

Peter A. Vanable, Associate Provost for Graduate Studies and Dean
Gabrielle Chapman, Associate Dean
304 Lyman Hall, 315-443-2543
graduateschool.syr.edu

gradschool@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 2010, 82.2 percent had earned their bachelor's degrees as of August 2015. 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

General Information

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	3
A & S - Writing Program	2
Architecture	6
Art & Music Histories	4
Arts & Sciences - Honors	15
Chemistry	2
Civil & Envirnmntal Engineering	2
Communication Rhetorical Study	2
Communication Sciences & Dis	6
Counseling and Human Services	1
Cultural Fndtn-Intergrp Dialog	3
Cultural Foundations Ed Curric	1
CVPA-Drama	27
CVPA-School of Music	46
Economics	1
Ed-Instructional Technology	1
Ed-Teaching & Leadership	2
Ed-Teach & Leadership Music	1
Elec Eng & Computer Science	8
English	3
Exercise Science	28
FALK Child & Family Studies	2

FALK Food Studies	3
Falk - Human Dev and Fam Science	6
FALK Marriage & Family Therapy	1
FALK Nutrition Sci & Dietetics	8
FALK Public Health	1
FALK Social Work	12
FALK Sport Management	2
Forensic Science Institute	10
Information Studies-Dean	31
Languages, Lit & Linguistics	17
Law College	5
Mathematics	4
Newhouse in NY - Fisher Ctr	1
Philosophy	5
Psychology	2
Public Admin & International Affairs	3
Public Communications	37
Reading & Language Arts	1

Religion	1
School of Design	11
School of Art at Comart	8
School of Art at Shaffer	12
School of Management	16
Sociology	1
Transmedia Studies	14
University College - BPS	3
University College-Fin Stdt Sp	3
University College-SCP Gen Ad	16

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	9
Agng Studies Institute	4
Analysis & Resolution Conflict	1
Anthropology	14
Architecture	26
Art & Music Histories	4
Biology	32
BMC Engineering	11
Chemistry	54
Civil & Environmental Engineering	16
Communication Rhetorical Study	11
Communication Sciences & Dis	5
Counseling & Human Services	5
Cultural Foundations Ed Curric	5
C-VPA School of Music	12
Earth Sciences	18
Economics	25
Ed-Instructional Technology	4
Ed-Teach & Ldrshp-Art Eductn	3
Ed-Teach & Ldrshp Math	2
Ed-Teach & Ldrshp Music	2
Ed-Teach & Ldrshp Sci Teach	4
Ed - Teaching and Leadership	12
Elec Eng & Computer Science	49
Engineering Dean P/T	1
English	41
Exercise Science	7
FALK BMW Child Dev. School	2
FALK Food Studies	2
FALK Human Dev and Fam Science	6
FALK Nutrition Science & Dietics	7
FALK Public Health	4
FALK Sport Management	3
Geography	16
History	22

Information Studies - Dean	1
International Relations	1
Languages, Lit & Linguistics	20
Mathematics	47
Maxwell Dean's Office	8
Mech and Aerospace Engineering	13
Philosophy	23
Physics	25
Political Science	35
Project Advance	1
Psychology	26
Public Communications	3
Reading & Language Arts	7
Religion	17
School of Art - Shaffer	1
School of Design	11
School of Management	15
Science Teaching	2
Social Science	3
Sociology	14
SU Abroad - Summer	3
Transmedia Studies	11
University Bands Office	2
University College - FIN Stdt Sp	1
University College - SCP Gen Adm	43

Syracuse University Leadership

University Leadership

1. Kent Syverud (Chancellor and President)
2. Anthony Callisto (Senior Vice President for Safety, Chief Law Enforcement Officer)
3. Lisa Dolak (Senior Vice President, University Secretary)
4. Daniel J. French (Senior Vice President, General Counsel)
5. Dolan Evanovich, (Senior Vice President for Enrollment and the Student Experience)
6. Bea González (Vice President for Community Engagement)
7. Andrew Gordon (Senior Vice President, Chief Human Resources Officer)
8. J. Michael Haynie (Vice Chancellor for Strategic Initiatives)
9. Brian E. Konkol (Dean of Hendricks Chapel)
10. Zhanjiang "John" Liu (Vice President for Research)
11. Amir Rahnamay-Azar (Senior Vice President, Chief Financial Officer)
12. Dara J. Royer (Senior Vice President and Chief Communications Officer)
13. Matthew Ter Molen (Senior Vice President,

General Information

Chief Advancement Officer)

14. Michele Wheatly (Vice Chancellor and Provost)

15. John Wildhack (Director of Athletics)

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. Upon reasonable request, information contained in education records will be explained and interpreted to students by University personnel designated by the appropriate office. Students have the right to review only their own records. When a record contains information about more than one student, the University will limit access to that part of the record which pertains only to the student requesting access unless information regarding the other student(s) cannot be segregated and redacted without destroying the meaning of the record insofar as it pertains to the requesting student.

II. The right to challenge the content of the student's education records the student considers the information contained therein to be inaccurate, misleading, or in violation of the student's privacy rights.

Students have a right to challenge the content of their education records if they consider the information contained therein to be inaccurate, misleading, or in violation of their rights of privacy. A student challenging information in his or her records should obtain a Request to Amend or Remove Education Records form from the Registrar's Office and clearly identify the part of the record he or she wants amended and specify why it is inaccurate, misleading or in violation of his or her rights of privacy. The Registrar may concur that an amendment is appropriate, and will take steps to make the amendment. If not, the student will be notified within a reasonable period of time that the records will not be amended and will be informed by the Registrar of the right to a formal hearing. If the hearing results

in a final determination not to amend the record, the student will be 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. The right to challenge information in education records 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, in which case the record will be corrected.

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.

The University may disclose education records without a student's prior written consent to school officials with legitimate educational interests. The University may make such disclosures in these and other circumstances as and to the extent permitted by FERPA.

A school official is: a person employed by the University in an administrative, supervisory, academic or research or support staff position; a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; 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 a person volunteering or otherwise performing services for the University. A contractor, consultant, volunteer, or other party to whom the University has outsourced institutional services or functions may be considered a school official under this exception only if he/she/it performs an institutional service or function for which the University would otherwise use employees, is under the direct control of the University with respect to the use and maintenance of education records, and agrees to use the education records only for the purposes for which they were disclosed.

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. This includes performing tasks specific to job, contractual, or volunteer duties and provision of a service or benefit relating to the student or the student's family. The information sought and provided must be pertinent to and used within the context of official University business and not for a purpose

extraneous to the official's area of responsibility.

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.

The University may disclose education records without consent to parents of a dependent student as defined by the Internal Revenue Code, 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.)

The University may make such disclosures in the case of emergencies to appropriate persons, if the knowledge of such information is necessary to protect against an articulable and significant threat to the health or safety of a student or other persons.

IV. The right to prevent disclosure of personally identifiable information that Syracuse University has designated as "Directory Information." Unless a student has followed the steps described below, the University may disclose "directory information" without consent in accordance with the provisions of FERPA. Directory information is defined as that information which would not generally be considered harmful or an invasion of privacy if disclosed. Syracuse University considers the following to be directory information:

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

Students have the right to have some or all of this directory information withheld from the public if they so desire. To prevent disclosure of Directory Information, students must file a *Request to Prevent Disclosure of Directory Information* form with the Registrar's Office, 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.

Any student who has reason to believe that the University is not complying with FERPA or this policy 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:

General Information

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202

For additional information about the University's FERPA policy, see <http://supolicies.syr.edu/ethics/ferpa.htm>.

Related Policy: Computing and Electronic Communications Policy

Student Grievance Process

The Syracuse University Grievance Procedures Policy is available at <http://supolicies.syr.edu/studs/grievance.htm>. Student Grievance Processes information may be found at <https://www.syracuse.edu/life/students/grievance-processes/>

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).

The State Authorization Reciprocity Agreement (SARA) is a national initiative to provide more access to online courses while maintaining compliance standards with state regulatory agencies. SARA allows institutions to provide online courses outside of their own state borders by seeking and maintaining state approvals via a streamlined process. To learn more about SARA, visit: nc-sara.org. New York State joined SARA on December 9, 2016. On February 15, 2017, the National Council for State Authorization Reciprocity Agreements (NC-SARA) approved institutional participation for Syracuse University.

The University is not required to be authorized in the three non-SARA states (California, Florida, and Massachusetts).

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 Grievance Process" for additional information.

However, if the complaint is not resolved through these processes, students may use the following list (current as of June 2017) to identify the office(s) to which complaints may be directed in the state in which they reside.

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 the Middle States Commission on Higher Education, the University's accrediting agency. See "Student Grievance Process" for additional information.

Alabama

Alabama Commission on Higher Education
PO Box 302000
Montgomery, AL 36130-2000
<http://www.ache.state.al.us/Content/Departments/NRI/federal-reg.pdf>
Alabama Community College System
P.O. Box 302130
Montgomery, AL 36130-2130
<https://www.accs.cc/index.cfm/school-licensure/complaints/>

Alaska

Alaska Commission on Postsecondary Education
PO Box 110505
Juneau, AK 99811-0505
EED.ACPE-IA@alaska.gov
http://acpe.alaska.gov/ABOUT_US/Consumer_Protection

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
423 Main St., Suite 400
Little Rock, AR 72201
ADHE_Info@adhe.edu
<http://www.adhe.edu/institutions/academic-affairs/institutional-certification-advisory-committee/grievance-form>

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

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

Colorado

Colorado Department of Higher Education
1560 Broadway, Suite 1600
Denver, Colorado 80202

<http://higher.ed.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

Connecticut Department of Consumer Protection, 165 Capitol Avenue, Room 110, Hartford, CT 06106
trade.practices@ct.gov
http://www.ct.gov/dcp/lib/dcp/Consumer_Statement_CPF2-2.pdf
Consumer Complaint Hotline: (800) 842-2649

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

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.shtml>

Georgia

The right of appeal of the final institutional decision may be made to:

Georgia Nonpublic Postsecondary Education Commission
2082 E Exchange Pl. #220
Tucker, GA 30084-5334
(770) 414-3300

<https://gnpec.org/consumer-resources/gnpec-authorized-school-complainant-form/>

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
http://www.boardofed.idaho.gov/priv_col_univ/

General Information

student_complaint.asp

Illinois

Illinois Board of Higher Education
1 North Old State Capitol Plaza, Suite 333431
East Adams, 2nd Floor
Springfield, Illinois 62701
complaints@ibhe.org
Institutional Complaint Hotline: (217) 557-7359

Indiana

Indiana Commission for Higher Education
101 W. Ohio Street, Suite 670
Indianapolis, IN 46204
<http://www.in.gov/che/2744.htm>
complaints@che.in.gov

Iowa

Iowa Student Aid Commission
430 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/academic_affairs/private_out_of_state/complaint_process

Kentucky

Kentucky Council on Postsecondary Education
1024 Capital Center Dr. #320
Frankfort, KY 40601-7512
<http://mailto:cpeconsumercomplaint@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/family/consumerprotection/complaints/Pages/default.aspx>

Louisiana

Louisiana Attorney General Office
Consumer Protection Section
PO Box 94005
Baton Rouge, LA 70804
ConsumerInfo@ag.state.la.us , 1-800-351-4889, 225-326-6465
<http://www.ag.state.la.us/Complaint.aspx?articleID=16&catID=15>

Louisiana Board of Regents
Attn: Nancy Beall or Dr. Larry Tremblay
P.O. Box 3677
Baton Rouge, LA 70821-3677
<http://www.regents.la.gov/assets/docs/2013/03/Board-of-Regents-SARA-Student-Complaint-Form.pdf>

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

Maryland

Maryland Higher Education Commission

6 North Liberty Street, 10th Floor
Baltimore, MD 21201
(410) 767-3388
http://mhec.maryland.gov/institutions_training/Documents/acadaff/MHECStudentComplaintForms.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/forstufam/complaints/complaintform.asp>

Michigan

Michigan Department of Licensing and Regulatory Affairs
Bureau of Commercial Services, Licensing Division
PO Box 30018
Lansing, MI 48909
http://www.michigan.gov/documents/lara/LCE-992_0715_494884_7.pdf

Minnesota

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/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
<https://protectthegoodlife.nebraska.gov/file-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 Department of Education
101 Pleasant Street
Concord, NH 03301
Patricia.Edes@doe.nh.gov
New Jersey

New Jersey Higher Education
PO Box 542
Trenton, NJ 08625
nj_che@che.state.nj.us
<http://www.state.nj.us/highereducation/OSHEComplaintInstructions.shtml>

New Jersey Division of Consumer Affairs
124 Halsey Street,
New Jersey 07102
<http://www.njconsumeraffairs.gov/Pages/File-a-Complaint-old.aspx>

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>

General Information

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

Director of Distance Education and State Authorization
North Dakota University System
1815 Schafer St., Ste. 202
Bismarck, ND 58501-1217
tanya.spilovoy@ndus.edu
<http://www.ndus.edu/system/state-authorization/>

Ohio

Ohio Dept. of Higher Education
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
1162 Court St. NE
Salem, OR 97301-4096
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.pa.gov/Documents/Postsecondary-Adult/College%20and%20Career%20Education/Private%20Licensed%20Schools/Student%20Complaint%20Form.pdf>
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/

Rhode Island

Rhode Island Office of the Postsecondary Commissioner
Shepard Building, 80 Washington Street, Suite 524
Providence, RI 02903

Rhode Island Department of Attorney General,
Consumer Protection Unit
150 South Main Street
Providence, RI 02903
<https://riag.wufoo.com/forms/q1851amb1bdd4d5/>

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

South Dakota

South Dakota Secretary of State Jason M. Gant
State Capitol, 500 East Capitol Avenue
Pierre, SD 57501-5070
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://consumer.sd.gov/complaintform.aspx>

Tennessee

Tennessee Higher Education Commission
404 James Robertson Parkway, Suite 1900
Nashville, TN 37243
<http://www.tn.gov/assets/entities/thec/attachments/ComplaintForm.pdf>

Texas

Texas Higher Education Coordinating Board
1200 E. Anderson Lane
Austin, TX 78752
<https://www1.thecb.state.tx.us/WWW/comments/>

Office of the Attorney General, Consumer Protection Division
PO Box 12548
Austin, TX 78711-2548
<https://www.texasattorneygeneral.gov/cpd/file-a-consumer-complaint>

Utah

Utah Division of Consumer Protection
160 East 300 South
Salt Lake City, Utah 84111
consumerprotection@utah.gov
<http://consumerprotection.utah.gov/complaints/index.html>

Vermont

Vermont Agency of Education, State Board of Education
120 State Street
Montpelier, VT 05620-2501
AOE.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
<http://www.schev.edu/index/students-and-parents/resources/student-complaints>

Washington

Washington Student Achievement Council
917 Lakeridge Way
PO Box 43430
Olympia, WA 98504-3430
complaints@wsac.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

Wisconsin

Wisconsin Educational Approval Board
431 Charmany Dr., Suite 102
Madison, WI 53719
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

General Information

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

U.S. Virgin Islands

Government of the United States Virgin Islands
Department of Education, Office of the
Commissioner
1834 Kongens Gade
St. Thomas, V.I. 00802

Nondiscrimination and EEO Policy

Syracuse University does not discriminate on any protected basis. This includes in admission, treatment, or access to its programs and activities or in employment in its programs and activities. The University prohibits harassment or discrimination related to any protected categories. The protected categories 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.

EOIRS is charged with ensuring compliance with a broad array of laws, statutes, and administrative policies regarding gender and racial equity, discrimination, and sexual harassment including Title VI, Title IX, Title VII, the Americans with Disabilities Act as amended (ADAAA), Sections 503 and 504 of the Rehabilitation Act, NY Human Rights laws and Affirmative Action Planning. The scope of responsibility is much broader than compliance, however. It includes a core educational mission for the campus that involves staff, faculty and departmental training; policy review; analysis of compensation and recruitment practices; conflict resolution; facilitating reasonable accommodations for people with disabilities; and affirmative action planning. For more information, visit the Equal Opportunity, Inclusion and Resolution Services website.

Any complaint of discrimination or harassment related to any of these protected categories (including any concern of sexual or relationship violence) should be shared with the University's Interim Chief Equal Opportunity and Title IX Officer, Sheila Johnson-Willis, who is responsible for coordinating compliance efforts under the various laws including Titles VI and VII of the Civil Rights Act, Title IX* of the Education Amendments, and Sections 503 and 504 of the Rehabilitation Act. You can contact Ms. Johnson-Willis at Equal Opportunity, Inclusion and Resolution Services, 005 Steele Hall, Syracuse University, Syracuse, NY 13244-1520; OR by email: sjohnson@syr.edu; or by telephone: 315-443-1520.

If you have questions about compliance with the ADA, the Rehabilitation Act, the New York

Human Rights Law, or interpretation of its provisions, such as the obligation to provide reasonable accommodations, please contact the University's ADA\503\504 Coordinator, Aaron Hodukavich, by email: ajhoduka@syr.edu OR by telephone: 315-443-2377.

*Title IX prohibits harassment or discrimination based on sex, gender, sexual orientation, gender expression, or gender identity. Titles VI and VII prohibit harassment or discrimination based on race, national origin, or color. Sections 503 and 504 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 in compliance with a federal law known as the Clery Act, 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

These rules and regulations are based on the requirements of the Graduate School. Departments, schools, and colleges may have additional rules that apply, that may be more restrictive. Academic rules and regulations for the College of Law may be found on their website. The general rules contained in the Undergraduate Academic Rules and Regulations also apply to graduate students.

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:

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

Academic Record

19.0 Advanced Credit Examinations

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 Syracuse University 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 Advanced Credit Exam is B.

20.0 Transfer Credit

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 Syracuse University 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.

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

School/College Rules

Information Studies	<p>A minimum grade of B is required in any transferred course, and credits from courses transferred must have been earned within seven (7) years of when the student is going to graduate with their iSchool degree.</p> <p>If international students have a non-STEM visa coming into a STEM program at the School, or are transferring into a program with a higher or lower number of credits needed to graduate, the student must notify the Slutzker Center for International Services so that the Center can report the facts of the student's present situation to US Immigration for potential visa adjustment.</p> <p>Students may transfer a maximum of six credits of elective courses into the M.S. program in information management, or the M.S. program in Library and Information Science, from outside of the School or University.</p> <p>Students may transfer up to a maximum of 15 credits to the M.S. program in information management under articulation agreements with the following institutions. The agreements are available for review on the School of Information website. National Defense University. University of Virginia School of Continuing and Professional Studies Certificate in Cybersecurity Management. US Army Signal Center School.</p>
Management	<p>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.</p>
Public Communications	<p>A maximum of 20 percent of credits counted toward any 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.</p>

Academic Rules

21.0 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. However, an undergraduate-level course does not fulfill graduate degree requirements.

22.0 Restricted

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.

24.0 Retaking Courses

Graduate Students may retake a course in which he/she earned a grade of C+, C, C- or F, with the approval of his/her department/college and the Graduate School. Graduate courses may be retaken only once. A repeated course replaces the original course on the student's degree program of study, but both the original course and the repeated course will appear on the student's transcript and both courses will calculate, unless the original course is flagged.

25.0 Flagging Courses

A student may petition his/her department/college to flag the following:

- undergraduate or remedial courses that are not part of the student's graduate program, such as English as a Second Language
- courses taken while non-matriculated
- when officially changing degree programs, courses that do not apply to the student's new degree program under certain conditions.
- when retaking a course in which the student earned a grade of C+, C, C- or F, with the approval of his/her department/college. 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.)

26.0 Grades P/F (Pass/Fail)

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

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.

23.0 Conversion to Graduate Credit

A student may apply to have up to 12 credits of restricted graduate credit converted to graduate credit if the student meets *all* of the following conditions:

- becomes matriculated in a graduate degree or certificate program
- overall average in all Syracuse University graduate work is at least 2.8
- earned a B or better in each course
- courses are part of a degree or certificate program approved by the student's department
- coursework has been completed within the time limit allowed for the degree

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

Academic Status

27.0 Minimum GPA to Continue Graduate Work

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.

28.0 Student Status

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

If the student is not registered for any coursework, including registration for master's

thesis or doctoral dissertation credits, the student must be registered for GRD 998 Degree in Progress.

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

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

Part-Time (Fall, Spring, and Summer)

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

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.

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.

Academic Actions

29.0 Internal Transfer

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. Internal transfer requests must be received before the financial drop deadline of the current term.

Degree and Certificate Programs

30.0 Graduate Degree and Certificate Programs

Master's degree candidates must take at least 70 percent of Syracuse University credit hours for the degree. 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 a Syracuse University registered graduate degree program. Experiential learning credit and professional experience courses don't count toward the residency requirement.

31.0 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 School.

Time to Degree

Students must meet all requirements for the master's degree within seven years from the time the student registers for the first course to be used in the master's degree program. If a student does not meet this requirement, the student may petition his/her school/college for reinstatement of credits that were completed outside the seven-year timeframe.

Comprehensive Examinations

The student's school/college will determine the nature of any comprehensive examination or examinations that apply toward his/her master's degree. Such exams may or may not be directly related to the content of particular courses that the student has 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 the subject area. The school/college will conduct the examination in the manner it considers

most effective; the student should contact his/her 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 regulations and declared policies are followed.

The student's 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.

32.0 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 the student's 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 the student's 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

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

Advancement to Candidacy/Time to degree

The student will be admitted to candidacy when he/she has 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 the student matriculated into the doctoral program. The student's department/college must notify the Graduate School when he/she has 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 the student is admitted to candidacy.

Exceeding Time to Degree Requirements

If the student has exceeded the seven-year limit for achieving ABD status, the student must

register for GRD 991, which requires a minimum of one credit hour per semester, each fall and spring semester until ABD status is achieved. If the student fails to register for GRD 991, for a given term, the student will be withdrawn from the program.

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

Dissertation Advisor

A faculty member from the department or program will be identified as the student's dissertation advisor. The dissertation advisor should be a Syracuse University tenured or tenure-track faculty member in the program of study of student's dissertation. In exceptional cases, where faculty emeriti or others with outstanding qualifications in the student's area of research will direct the dissertation, a member of the Syracuse University faculty from the department/college must jointly oversee the preparation of the student's dissertation.

Oral Examination

The academic unit appoints a six-member oral examination committee, including a chair, at the recommendation of the student's 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 Syracuse University 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.

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

Prior to the exam, the Graduate School must verify that the student has been admitted to candidacy, and that all supporting documentation has been filed. The student's dissertation advisor and academic unit will determine the scheduling of the exam with the approval of the Graduate School. 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

Academic Rules

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

The student is entitled to an explanation from the committee concerning the outcome of the defense.

33.0 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.

34.0 Counting Credits Toward Multiple Degrees and/or Programs

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

The student must be admitted to the degree program in each of the awarding department/college.

In no instance shall course credit be counted more than twice in satisfaction of the requirements for multiple degrees and/or programs.

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 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.).

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 Syracuse University concurrent study

Syracuse University and SUNY ESF have agreements that encourage concurrent master's study in environmental science and forestry with Syracuse University degree work in public communications, law, management, public administration, and certain education programs. Other Syracuse University fields may also qualify. Students should contact the school/college, the Graduate School and SUNY ESF for specific requirements and procedures regarding

concurrent degree work and counting of credits.

35.0 Diplomas and Certificates

Reference general academic rule section Diplomas and Certificates.

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.

Academic Offerings

Graduate Offerings

OFFERING	MINIMUM CREDITS REQUIRED
Accounting J.D./MBA	
Addiction Studies	
M.A.	36
C.A.S.	24
Advertising	
M.A.	36
Aerospace Engineering/Business Administration (3-2 program)	
B.S./M.B.A.	182
Aerospace Engineering BS/Mech & Aerospace Eng MS	
Anthropology	
M.A.	30
Ph.D.	72
Applied Data Science	
M.S.	36
Applied Statistics	
M.S.	33
Architecture - First Professional M.Arch I	
M. Arch.	110
Architecture	
M.S.	30
Art Education: Preparation	
M.S.	45
Art Education: Professional Certification	
M.S.	30
Art History	
M.A.	30
Art Photography	
M.F.A.	60
Art Video	
M.F.A.	60
Arts Journalism	
M.A.	36
Arts Leadership Administration	
C.A.S.	15
M.A.	39
Audio Arts	
M.A.	36
Audiology	
Au.D.	92
AuD/Ph.D.	110
Ph.D.	83
Bioengineering	
M.S.	30
Ph.D.	42
Bioengineering BS/MS	

Bioengineering/Business Administration (3-2 program)	
B.S./M.B.A.	174
Biology	
M.S.	30
Ph.D.	48
Biomedical Forensic Sciences	
M.S.	36
Broadcast and Digital Journalism	
M.S.	40
Business Administration	
M.B.A.	54
Ph.D.	72
Business Administration (iMBA)	
M.B.A.	54
Business Analytics	
M.S.	36
Chemical Engineering	
M.S.	30
Ph.D.	42
Chemical Engineering BS/MS	
Chemical Engineering/Business Administration (3-2 program)	
B.S./M.B.A.	174
Chemistry	
M.S.	30
Ph.D.	48
Child Therapy	
C.A.S.	
Civil Engineering	
M.S.	30
Ph.D.	48
Civil Engineering/Business Administration (3-2 program)	
B.S./M.B.A.	173-174
Civil Society Organizations	
C.A.S.	15
Clinical Mental Health Counseling	
M.S.	60
Clinical Psychology	
Ph.D.	90
College Science Teaching	
Ph.D.	90
Communications (Distance Format)	
M.S.	33
Communication and Rhetorical Studies	
M.A.	33
Communications Management	
M.S.	36

Academic Offerings

Composition and Cultural Rhetoric		Disabilities Studies	
Ph.D.	75	C.A.S.	15
Computational Journalism		Documentary Film and History	
M.S.	36-37	M.A.	38
Computational Linguistics		Early Childhood Special Education	
M.S.	36	M.S.	36
Computer and Information Sci. & Engineering		Earth Sciences	
Ph.D.	52	M.A.	30
Computer Art		M.S.	30
M.F.A.	60	Ph.D.	72
Computer Engineering (Distance Format)		Econometrics	
M.S.	30	C.A.S.	15
Computer Engineering BS/MS	154	Economics	
Computer Engineering/Business Administration (3-2 program)		M.A.	30
B.S./M.B.A.	184	Ph.D.	72
Computer Science		Economics and International Relations	
M.S.	30	M.A.	
Computer Science (Distance Format)		Educational Leadership	
M.S.	30	C.A.S.	60
Computer Science (3-2 program)		Ed.D.	
B.S./M.S.	150	M.S.	
Computer Science/Business Administration (3-2 program)		Educational Technology	
B.S./M.B.A.	178	C.A.S.	15
Conducting		E-Government Management and Leadership	
M. Mus.	34	C.A.S.	12
Conflict Resolution		Electrical & Computer Engineering	
C.A.S.	12	Ph.D.	52
Counseling and Counselor Education		Electrical Engineering	
Ph.D.	90	M.S. (Distance Format)	30
Creative Writing		M.S.	30
M.F.A.	48	Electrical Engineering BS/MS	156
Cultural Foundations of Education		Electrical Engineering/Business Administration (3-2 program)	
M.S.	30	B.S./M.B.A.	186
Ph.D.	90	Engineering Management	
J.D./M.S.		M.S.	
Cultural Heritage Preservation		English	
C.A.S.	15	M.A.	30
Cybersecurity		Ph.D.	
M.S.	30	Enterprise Data Systems	
C.A.S.	12	M.S.	36
Data Science		Entrepreneurship (Distance Format)	
M.S.	30	M.S.	30
C.A.S.	15	Entrepreneurship & Emerging Enterprises	
Defense Comptrollership Program MBA/EMPA	60	M.S.	30
Design		Environmental Engineering	
M.F.A.	60	M.S.	30
Designing Digital Instruction		Environmental Engineering Science	
C.A.S.	15	M.S.	30
Dietetic Internship Program		Environmental Engineering/Business Administration (3-2 program)	
C.A.S.	13	B.S./M.B.A.	183-184

Academic Offerings

Environmental Health		D.P.S.	51
C.A.S.	12	Information Science and Technology	
European Union & Contemporary Europe		Ph.D.	78
C.A.S.	12	Information Security Management	
Exercise Science		C.A.S.	15
M.S.	36	Information Systems and Telecommunications Management	
Experimental Psychology		C.A.S.	15
Ph.D.	90	Information, Technology, and Policy, and Mgt.	
Film		C.A.S.	12
M.F.A.	60	Instructional Design Foundations	
Finance		C.A.S.	12
M.S.	30	Instructional Design, Development, and Evaluation (IDD&E)	
Finance JD/MBA		C.A.S.	60
Firearm and Toolmark Examination		M.S.	30
C.A.S.	12	Ph.D.	
Food Studies		Instructional Technology	
M.S.	36	M.S.	30
C.A.S.	12	Intercollegiate Athletic Advising and Support	
Forensic Science		C.A.S.	15
M.S.	36	International Relations	
French and Francophone Studies		M.A.	40
M.A.	30	International Relations (Executive)	51
Geography		International Relations, MA/Political Science, Ph.D.	79
M.A.	30	International Relations/Public Administration	
Ph.D.	72	M.A./MPA	58
Global Health		Language Teaching: TESOL/TLOTE	
M.S.	36	C.A.S.	12
C.A.S.	19	Latin American Studies	
Health Services Management and Policy		C.A.S.	12
C.A.S.	12	Latin American/Caribbean Studies	
Higher Postsecondary Education		C.A.S.	12
M.S.		Law J.D.	87
Ph.D.		Law LLM	24
History		Law/Advertising J.D./M.A.	
M.A.	30	Law/Arts Journalism J.D./M.A.	
Ph.D.	72	Law/Computer Science J.D./M.S.	
Human Development and Family Science		Law/Documentary Film & History J.D./M.A.	
M.A.	30	Law/Forensic Science J.D./M.A.	
Human Development and Family Science		Law/History J.D./M.A.	
M.S.	30	Law/International Relations J.D./M.A.	
Human Development and Family Science		Law/Magazine, Newspaper, & Online Journalism J.D./M.A.	
Ph.D.	72	Law/Media Management J.D./M.S.	
Illustration		Law/Media Studies J.D./M.A.	
M.F.A.	60	Law/Philosophy J.D./Ph.D.	
Inclusive Special Educ (Generalist) Grades 7-12		Law/Photography J.D./M.S.	
MS	30-43	Law/Political Science J.D./M.S.	
Inclusive Special Ed: 1-6 Preparation		Law/Political Science J.D./Ph.D.	
MS	32	Law/Public Administration J.D./M.P.A.	
Inclusive Special Educ. Severe/Multiple Disabilities		Law/Public Relations J.D./M.S.	
M.S.	31	Law/Social Work (Licensed Clinical) J.D./MSW	
Information Management			
M.S.	42		

Academic Offerings

Law/Social Work (Licensed Master)	
Law/Television, Radio, & Film	
Leadership of International and Non-Governmental Organizations	
C.A.S.	12
Library and Information Science	
M.S.	36
J.D./M.S.	
Library and Information Science: School Media	
M.S.	37
Linguistic Studies	
M.A.	30
Literacy Education	
M.S.	36
Ph.D.	90
Literacy Education Birth to Grade 12	
M.S.	30
Magazine, Newspaper, and Online Journalism	
M.A.	36
Marketing	
M.S.	30
Marriage and Family Therapy	
M.A.	60
Ph.D.	72
Mass Communications	
Ph.D.	90
Mathematics	
M.S.	30
Ph.D.	90
Mathematics Education	
Ph.D.	90
Mechanical and Aerospace Engineering	
M.S.	30
Ph.D.	48
Mechanical Engineering, BS/Mechanical & Aerospace Engineering, MS	128
Mechanical Engineering/Bus Admin (3-2 program)	
B.S./MBA	182
Media and Education	
M.A.	36
C.A.S.	15
Media Studies	
M.A.	36
Medicolegal Death Investigation	
M.S.	36
C.A.S.	12
Microwave Engineering	
C.A.S.	
Middle Eastern Affairs	
C.A.S.	12
Museum Studies	
M.A.	33

Music Composition	
M. Mus.	34
Music Education Professional Certification	
M. Mus.	33
M.S.	33
Music Education Preparation	
M.S.	47
Music Industry	
BMus/MBA	165
National Security and Counterterrorism Law	
C.A.S.	15
New Media Management	
M.S.	42
Nutrition Science	
M.A.	36
M.S.	30
Organ	
M. Mus.	34
Pan African Studies	
M.A.	30
Percussion	
M. Mus.	34
Philosophy	
M.A.	30
Ph.D.	63
Photography	
M.S.	30-33
Physics	
M.S.	30
Ph.D.	48
Piano	
M. Mus.	34
Political Science	
M.A.	30
Ph.D.	72
Post-Conflict Reconstruction	
C.A.S.	12
Professional Accounting	
M.S.	30
Professional Accounting (Distance Format)	
M.S.	30
Public Administration	
M.P.A.	40
Public Administration (Executive)	
M.P.A.	30
Public Administration - Executive (Distance Learning Format)	
M.P.A.	30
Public Administration	
Ph.D.	81
J.D./M.P.A.	
Public Administration	

Academic Offerings

C.A.S.	12
Public Diplomacy M.A./M.S.	58
Public Health	
M.P.H.	42
Public Health	
M.S.	42
Public Health	
C.A.S.	15
Public Health, BS/Global Health, MS	144
Public Health, BS/MS	150
Public Infrastructure Management and Leadership	
C.A.S.	15
Public Management and Policy	
C.A.S.	12
Public Relations	
M.S.	36
Religion	
M.A.	30
Ph.D.	
School Counseling	
M.S.	48
School Counseling	
C.A.S.	60
School District Business Leader (Professional Certification)	
C.A.S.	60
School Media	
C.A.S.	21
School Psychology	
Ph.D.	90
Science Education	
C.A.S.	60
Ph.D.	
Security Studies	
C.A.S.	12
Social Psychology	
Ph.D.	90
Social Science	
Ph.D.	72
Social Work	
M.S.W.	60
Social Work J.D./M.S.	
Social Work Advanced Standing Program	
M.S.W.	36
Social Work and Marriage and Family Therapy Dual Degree	
M.A., M.S.W.	96
Sociology	
M.A.	30
Ph.D.	72
South Asia Studies	
C.A.S.	12

Spanish Language, Literature, and Culture	
M.A.	33
Special Education	
Ph.D.	
Speech Language Pathology	
M.S.	46 - 53
Ph.D.	83
Sport Venue & Event Management	
M.S.	36
Strings	
M. Mus.	34
Structural Biology, Biochemistry, and Biophysics	
Ph.D.	
Student Affairs Counseling	
M.S.	48
Studio Arts	
M.F.A.	
Supply Chain Management	
M.S.	30
Sustainable Enterprise	
C.A.S.	15
Teaching and Curriculum	
M.S.	30
Ph.D.	90
Teaching English Language Learners (First Certification)	
M.S.	40
Teaching English Language Learners	
M.S.	30
Television-Radio-Film	
M.A.	36
Trauma-Informed Practice	
C.A.S.	15
Voice	
M. Mus.	34
Voice Pedagogy	
M. Mus.	32
Wind Instruments	
M. Mus.	34
Women's and Gender Studies	
C.A.S.	12

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 All 500-level courses are defined as being joint undergraduate and graduate courses. The course syllabus must provide a description of additional activities and grading policies for graduate students	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 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.

Guide to Reading Course Descriptions

- **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
- **INDEPENDENT STUDY**
 (Subject) (Catalog Number) Independent Study 1-6 credits
 In-depth exploration of a problem or problems.
- **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 st 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. 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 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

School of Architecture

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.

Master of Science in Architecture degrees are not reviewed or accredited by NAAB.

Graduate Education

Chair Brian Lonsway, 225 Slocum Hall

Contact Lauren Mintier, 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 Master of Architecture is a fully accredited professional degree open to students with non-architecture as well as architecture backgrounds. The Syracuse Architecture Master of Science in Architecture degree supports independent, timely, and innovative research projects in the field of architecture and urbanism.

Merit Scholarships and Assistantships

In addition to competitive scholarships for incoming students, the school of architecture is committed to offering merit-based financial assistance to continuing students who maintain satisfactory academic progress through a variety of channels. You can find an overview of our

programs here: <http://soa.syr.edu/admissions/graduate/financial-aid.php/>.

We offer approximately 30 assistantships every semester to continuing graduate students. These positions are available in the areas of teaching or research, depending on the needs of the school and faculty. To qualify for a teaching assistantship in a particular course area, students must have appropriate experience, in the areas of design, architectural history, theory, building technology, drawing, structures, and computing. Students maintaining at least a 3.0 GPA are eligible for assistantship positions annually. Students who are not serving in a TA position are eligible for scholarship assistance each semester. Additionally, we offer hourly research internships, subsidize the cost of travel for required field trips, and offer a number of named scholarships.

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

Off Campus Programs

The Programs

Students in the Master of Architecture program spend a summer of study in one of our two prestigious off-campus programs: at the New York City Fisher Center, or in our Three Cities: Asia program. In addition, M.Arch. students have the option of extending their program duration by one semester in order to study in our Florence or London programs in their second year of study. Special scholarship opportunities exist to aid students in taking advantage of study away programs.

Florence

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

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

School of Architecture

from the wide range of nonprofessional courses available to satisfy elective requirements. The program is staffed by Syracuse and London-based faculty and includes guest lecturers and visiting critics drawn from the extensive London architecture community.

New York City

The University's Fisher Center is based at 136 Madison Avenue in Midtown Manhattan and offers opportunity to study in one of the most architecturally rich and culturally vibrant cities in the world. The summer curriculum focuses on the city's history, and morphology, and directly engages the creative challenges of the architect's role in planning, and real estate development. The program draws on NYC-based architecture faculty and critics, and includes 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 off campus opportunities are available. Options vary from year to year and are designed to introduce students to architecture, urban cities and the disciplinary cultures that create them. India, France, Turkey, Greece, Germany, Russia, Spain, Austria, China, South America and Japan have been the subjects of study for such programs in the recent past.

All students wishing to study in our global campus programs must have a minimum 2.5 cumulative GPA and be in good judicial standing.

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 containing 60 latest-generation 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.

An output room provides an assortment of plotters, printers, and large and small format scanners available to students throughout the school from school or personal computers.

A digital fabrication suite includes 3D printers using various media (liquid and solid polymers, paper and starch), laser cutters, large and small format CNC mills and a vacuum former.

A fully equipped workshop is staffed by a full-time professional instructor and includes a full suite of woodworking equipment including 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

Contact

Lauren Mintier, Graduate Program Manager
225 Slocum Hall
ph. (315) 443-1041
e.lmintier@syr.edu

Chair

Brian Lonsway, 225 Slocum Hall

Faculty

Maya Alam, Amber Bartosh, Jean-François Bédard, Lori Brown, Junho Chun, Mitesh Dixit, Britt Eversole, Joseph Godlewski, Henderson, Roger Hubeli, Lawrence Liberatore, Mark Linder, Brian Lonsway, Nicole McIntosh, Marcos Parga, Daniele Profeta, David Shanks, Yutaka Sho, Michael Speaks, Fei Wang

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 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.

Studios in design and media, lecture courses and seminars in theory and history, and courses in structures and technology during the first three semesters of the M.Arch curriculum constitute the "core" of the program.

The final four semesters, including a summer intensive term, each offer distinct experiences. In the fourth semester, all students have the option to select from a range of studios taught by distinguished visiting critics. In the summer of the second year, students may choose to study at a summer intensive program in New York City or in one of our "Three Cities" global study programs. Students also have the option of studying abroad at the university's centers in Florence and London in the spring of their second or third years by extending their study into an additional fall term.

The design focus of the final year is structured

School of Architecture

around our Integrative Studio, designed to synthesize knowledge garnered across the curriculum in a highly detailed building design, and a faculty-directed research project defined and developed by the student in tandem with faculty advisors.

A rich array of professional and history electives allows students to study specific topics in seminars and lecture courses.

Completion of the degree typically requires three academic years and one summer. Students with four-year baccalaureate degrees in architecture, architectural engineering, or related fields may qualify for advanced standing in the program, which could shorten the program to two years (including full-time study in the summer between the first and second year). Determination of qualification for advanced study is made at the time of admission. Participation in the Teaching Assistantship program or study abroad in our London or Florence programs requires the extension of the program by one additional term.

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. The program seeks students with a wide range of experiences. 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 or IELTS scores are required for all applicants whose native language is not English.

Student Learning Outcomes

As a professional architecture program, the M.Arch degree is accredited by the National Architectural Accrediting Board (NAAB), and is required to deliver the learning objectives identified in their Student Performance Criteria. Please visit this link to view these learning outcomes: <http://soa.syr.edu/school/student-learning-outcomes/index.php>.

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.

The following courses are listed in the catalog, but the school also offers a variety of Selected Topics (ARC 500) courses each term. The descriptions of recent offerings can be found on the School of Architecture website, under the M.Arch and M.S. in Architecture curriculum pages.

- 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 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. The following courses are listed in the catalog, but the school also offers a variety of Selected Topics (ARC 500) courses each term. The descriptions of recent offerings can be found on the School of Architecture website, under the M.Arch and M.S. in Architecture curriculum pages.

- ARC 500 - Selected Topics 1-6 credit(s)
- ARC 511 - Advanced Structural Resolution 3 credit(s)
- ARC 536 - Italian Urbanism: 100 Cities 3 credit(s)
- ARC 538 - Artistic Patronage of Medici 3 credit(s)
- ARC 551 - Le Corbusier 1887-1965 3 credit(s)
- ARC 555 - Introduction to Building Information Modeling 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 566 - Introduction to Preservation 3 credit(s)
- ARC 567 - Dwelling and the Modern Home 3 credit(s)
- ARC 568 - Real Estate Design and Development 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 six credits of open elective courses, offered by schools and colleges other than the School of Architecture, are required.

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 at the time of admission after a complete review of the applicant's portfolio by representatives of the faculty. Students who are admitted with advanced standing will receive credit for ARC 604, ARC 605, ARC 681, and ARC 650.3, along with 1 history elective, 1

School of Architecture

technology elective, 2 professional electives, and 2 open electives.

All admitted students are eligible to sit for equivalency exams in the areas of Architectural History, Building Technology, and Structures. These are offered during the orientation week prior to the first week of classes. Students who receive a grade of “B” or better on these exams will receive equivalency credits in these subject areas that can be applied to the total number of credits required to graduate. Students entering with advanced standing who receive a grade of “B” or better will be able to waive specific courses in these subject areas, but will need to substitute elective credits, as they will still be required to complete 76 credits at Syracuse University to meet the degree requirements.

Architecture, MS

Contact

Lauren Mintier, Graduate Program Manager
225 Slocum Hall
ph. (315) 443-1041
e. lmintier@syr.edu

Chair

Brain Lonsway, 225 Slocum Hall

MS Program Coordinator

Fei Wang, fwang100@syr.edu

Faculty

Amber Bartosh, Roger Hubeli, Elizabeth Krietemeyer, Julie Larsen, Brian Lonsway, Daekwon Park, Terek Rakha, David Shanks, Michael Speaks, Fei Wang

Description

Design | Energy | Futures is a concentrated research + design program that leads to a post-professional master of science (MS) in Architecture degree. The program focuses on energy and the built environment with research + design projects ranging across many scales, from urban design to high performance buildings, from VR and computational simulation to building material research and product design, and across a range of disciplinary and practice areas. The Master of Science degree seeks theoretically or speculatively inclined architects and emerging scholars whose research can be applied to pressing contemporary problems and opportunities. This 30-credit course of study, completed in three semesters, admits a limited number of students whose areas of interest can be matched with the expertise and ongoing research of the school’s faculty.

Students’ first semester consists of one design studio in the area of Design | Energy | Futures complemented by a seminar in architectural research methods and applications designed to

support a student’s preliminary investigations of an individual design/research project. The second semester is dedicated to elective coursework from both within the school of architecture and across campus, selected specifically to support a student’s individual project. And, in the culminating term, a student will complete their independent within the collaborative framework of a directed research course and affiliated research seminar.

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.

Student Learning Outcomes

1. Develop a student’s applied understanding of research and design research skills relevant to future practices in the built environment.
2. Advance a student’s design thinking skills, including the ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards
3. Develop a student’s ability to apply contemporary design research tools and techniques to model the energy performance of building designs for the purposes of visualization,

assessment, and/or design.

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 research.

Study Abroad

Students interested in off campus study should discuss how off campus study may 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

The Master of Science in Architecture is a “post-professional” degree, typically earned after completing a NAAB-accredited B.Arch. or M.Arch., and it alone does not qualify as a professional degree leading to eligibility for the Architectural Registration Exam or licensure in the USA.

School of Architecture

School of 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 511 - Advanced Structural Resolution

School of Architecture

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

Structural analyses to compare and contrast design solutions for a given project. Presents appropriate techniques, regulatory codes and software to facilitate such analyses and subsequent design decisions.

PREREQ: ARC 311 OR ARC 612

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 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 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 553 - NYC City Planning

School of Architecture

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

Using New York City as its laboratory, this seminar will explore the role of urban design in shaping the city, comprising site visits, meetings with key stakeholders and assignments addressing contemporary urban design issues.

ARC 555 - Introduction to Building Information Modeling

School of Architecture

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

Introduction to uses of Building Information Modeling in architecture through a series of case studies or drawing and analysis of building components in real time demonstrations.

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

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 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 567 - Dwelling and the Modern Home

School of Architecture

3 credit(s) Upon sufficient interest

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

School of Architecture

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

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

School of Architecture

ARC 631 - Studies in Architectural Histories

School of Architecture
3 credit(s) At least 1x fall or spring
Studies of global architectural histories.

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 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 651 - Language and Discourse in Architecture

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

ARC 681 - Media I

School of Architecture
3 credit(s) At least 1x fall or spring
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
6-9 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
6-9 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 734 - London's Built Environment

School of Architecture
3 credit(s) At least 1x fall or spring
Double Numbered with: ARC 434
Presents a social and political history of the built environment in London, focusing on times of destruction and (re)construction. Additional

work required of graduate students.

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

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.

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, 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 by March 15. Students who are currently enrolled at Syracuse University should contact Professor Pinyuen Chen at pinchen@syr.edu for further information.

Student Learning Outcomes

1. Basic Probability: Concepts and skills in working with basic probability formulas
2. Working knowledge of one computing technique from the list: MATLAB, MINITAB, R, SAS, and SPSS and the ability to use the output of the software
3. Data analysis ability in one of the following subjects: regression analysis, design of experiment, survey sampling, contingency table, engineering statistics, stochastic processing, and time series analysis
4. Statistical application in one of the following areas: biology, computer science, earth science, environmental science, communications, economics, engineering, forestry, geography, public affairs, political science, management, psychology, sociology, and social work

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.

College of Arts and Sciences

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, 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:

emphasize statistical applications, or

involve consulting or advisement about statistical applications.

Degree:

Master of Science in Applied Statistics

Total Credits: 33

Art History, MA

Romita Ray, Chair
308 Bowne Hall
315-443-5030

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, Sally Cornelison, Wayne Franits, Samuel Johnson, Matilde M. Mateo, Jonathan Nelson, Romita Ray, Sascha Scott

M.A. in Art History, Main Campus Program

The M.A. in art history requires thirty graduate credits, taken over a period of two years, 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 are required, including ancient/medieval, Renaissance, Baroque/18th century, modern/American, and non-Western. Also required are HOA 655-Proseminar in Graduate Research Methods and Scholarly Writing and HOA 656- The Literature of Art Criticism. Colloquia and special lectures augment formal courses. With permission, a limited number of credits (up to 6) may be taken outside the department, in such disciplines as 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 a second language, including 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 (HOA 757), during which they prepare a qualifying paper and present their findings at a public symposium. Faculty specializations in medieval, Italian and Northern Renaissance, baroque, 18th- 20th century, and Native American art are reflected in library holdings that include several visual databases and a comprehensive collection of books and periodicals. The Syracuse University Art Galleries and the nearby Everson Museum of Art have notable collections of paintings, photographs, prints, ceramics, and sculpture.

Concurrent Degree with Museum Studies

Students can concurrently pursue degrees 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 51 credits, which must be the requirements for the M.A. in art history (22 credits) and the M.A. in museum studies (27 credits).

For information on the M.A. in museum studies, contact Emily Stokes-Reed, Director of the Museum Studies Program, The Warehouse Suite 135, ewstokes@syr.edu.

M.A. in Art History, Florence Program in renaissance Art

This specialized M.A. degree program devoted to the study of Italian Renaissance art requires thirty graduate credits, taken over three semesters. Successful applicants to this program typically have pursued undergraduate studies in cultural history with an emphasis on the visual arts and have a working knowledge of the Italian language. The four top-ranked candidates enter the program with Florence Fellowships that provide full tuition and a stipend; other funding opportunities are available. Students enrolled in this program must meet departmental art history and Italian language proficiency requirements during their first semester of study. Students begin their coursework in the fall semester at the University's main campus in Syracuse. If necessary, at this time they enroll in Italian classes to reach fluency sufficient to conduct scholarly work in Italy. Upon successful completion of the first semester, students register for two semesters of coursework at Syracuse University in Florence. In addition to taking a variety of graduate seminars, during their year in Florence, students enroll in HOA 622, for which they undertake capstone research projects and present the results of their research at a public symposium.

The deadline for application to M.A. programs in art history is January 15.

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.

Student Learning Outcomes

1. Recognize how arts and artists function in society and educate students about community engagement, multiculturalism, and demographic diversity
2. Demonstrate an understanding of basic business skills including: accounting, public relations, financial management, organizational theory, marketing, planning, and analysis
3. Relate issues of leadership in complex organizations to the arts
4. Establish a network of professional contacts and the opportunity for interaction with top leaders in the field
5. Develop the ability to express concepts and ideas in writing and oral presentations

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:

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

James Hewett, 315-443-9613
jhewett@syr.edu
350 Life Sciences Complex

Contact

Lynn Fall

Graduate Program Administrator
315-443-9154
lfall@syr.edu

114 Life Sciences Complex
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 and 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 analytical 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 is desirable 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.

Student Learning Outcomes

1. Develop experience in application of the scientific method to research problems in contemporary Biology. For MS students this will be expected to culminate at program conclusion in a basic knowledge of how to approach the design and execution of experiments addressing a research problem in a robust way
2. Possess knowledge of their subfield sufficient to formulate and address contemporary research questions
3. Ability to explain and analyze concepts from additional subfields of biological sciences related to their own
4. Use communication and synthetic skills for presentation in oral, poster and written formats.
5. Demonstrate an awareness of matters associated with ethics and the responsible conduct of research

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 (BIO 997) 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 2017-2018 academic year is \$ 26,750. 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

Student Learning Outcomes

1. Accurately define the field of forensic science and describe how it overlaps with their particular interests
2. Describe the relationship and interplay between forensic science and the legal system
3. Appreciate the importance of ethical standards and describe the means through which such standards are upheld in forensic science
4. Explain the goals and methods of forensic pathology and forensic toxicology and the interplay between them
5. Employ statistical methods and evaluate statistical results to solve problems in forensic science and to communicate findings

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

- FSC 635 - Medicolegal Death Investigation I 3 credit(s)
- FSC 636 - Medicolegal Death Investigation II 3 credit(s)
- FSC 644 - Forensic Chemical Analysis 4 credit(s)
- FSC 645 - Forensic Biochemical Analysis 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 - Latent Print Processing 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 669 - Science of Countering Weapons of Mass Destruction 3 credit(s)
- FSC 671 - Firearms and Impressions Evidence II

3 credit(s)

- FSC 672 - Advanced Light Microscopy 3 credit(s) *

FSC 674 Forensic DNA Analysis* (Double numbered FSC 474/674)

FSC 675 Latent Prints II (Double numbered with FSC 475/675)

- FSC 676 - Cold Cases 3 credit(s)
- FSC 690 - Independent Study 1-6 credit(s)
- ANT 633 - Human Osteology 3 credit(s)
- ANT 634 - Anthropology of Death 3 credit(s)
- ANT 636 - Bioarchaeology 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 631 - Population Genetics 3 credit(s)
- BIO 638 - Open Problems in Soft Interfaces 3 credit(s)
- BIO 643 - Seminar in Epigenetics 3 credit(s)
- BIO 650 - Seminar in Evolutionary Genetics 3 credit(s)
- BIO 656 - Seminar in Human Disease Genomics 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 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)
- 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)
- FSC 640 - Special Topics in Advanced Forensics 3 credit(s)

Total: 36 credits

Degree: Master of Science

Chemistry, MS

Chair:

Timothy M. Korter
1-014 Center for Science and Technology,
315-443-0269, tmkorter@syr.edu

Faculty

Mark S. Birman, Carlos A. Castañeda, Joseph Chaiken, Arindam Chakraborty, John D. Chisholm, Robert P. Doyle, John M. Franck, James L. Hougland, Bruce S. Hudson, Tara Kahan, James Kallmerten, Ivan V. Korendovych, Timothy M. Korter, Yan-Yeung Luk, Olga V. Makhlynets, 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.

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.

Student Learning Outcomes

NO THESIS:

1. Develop knowledge in a specialized area of chemistry
2. Develop broad overview of the current state of chemical knowledge outside one's own area of specialization
3. Demonstrate knowledge of graduate level chemistry

THESIS:

1. Develop knowledge in a specialized area of chemistry
2. Develop broad overview of the current state of chemical knowledge outside one's own area of specialization
3. Use instrumentation and techniques for problem solving in chemistry
4. Organize and interpret scientific data for written and oral presentation
5. Critically analyze and evaluate one's own findings and those of others
6. Extend the state of scientific knowledge in one's own area of specialization

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 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

Student Learning Outcomes

1. Apply techniques that are being widely used in search engines, digital libraries, speech recognition systems, and NLP data mining toolkits
2. Engage in recent data-driven scholarship in computational social sciences and digital humanities
3. Use NLP tools to analyze and create large document collections, identify the main themes

and opinions of different parties

4. Apply syntactic and semantic analysis to natural language

5. Engage in speech synthesis and in machine translation

Computational Linguistics

Gerald Greenberg

ggreenbe@syr.edu

441 Hall of Languages

315-443-2875

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 includes 3 or 6 credits in 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 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

Christopher Kennedy, Director of Creative Writing, 416 Hall of Languages, ckennedy@syr.edu,

315-443-3755

Faculty

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

College of Arts and Sciences

The MFA program in Creative Writing at Syracuse 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 with their online application through CollegeNet no later than December 15, as well as complete the online graduate application for graduate study. 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.

Submit online Graduate Application via CollegeNet by DECEMBER 15th.

- **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 CollegeNet, 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 CollegeNet application by December 15. Do NOT mail in your poetry writing sample.

Candidates must complete 48 credits of coursework, which includes 9 credits of workshop, a minimum of 9 credits in forms courses, a 3-credit second-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).

For more information about our graduate programs, visit our department web site at english.syr.edu.

Student Learning Outcomes

1. Writing, editing and revision in student's primary literary genre, leading to a creative manuscript of publishable quality
2. Reading in ways that contribute to a student's writing

MFA Graduate Awards

First year MFAs come in on an award which carries no teaching duties. The award comes with a stipend of \$15,125 and a 24 credit hour tuition scholarship.

Second and third year students are funded by teaching assistantships. Teaching assistantships

include a 24 credit hour tuition scholarship and a stipend of \$15,125. Second year TAs will have full responsibility for teaching three sections a year in the Writing Department. They are expected to attend regular staff meetings and workshops and participate in a mentoring group. There is a review of each teaching assistant's performance as a teacher. Third year students will teach in the English Department, courses to be determined on an as needed basis.

Earth Sciences, MA

Laura K. Lautz Chair
204 Heroy Geology Laboratory,
315-443-2672

Faculty

Suzanne L. Baldwin, Marion E. Bickford, Daniel Curewitz (lecturer), 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, Jay Thomas, 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.

Student Learning Outcomes

1. Develop deeper knowledge than the BS or BA degree in the Earth Sciences, with multidisciplinary emphasis outside EAR

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

Laura K. Lutz, Chair
204 Heroy Geology Laboratory,
315-443-2672

Faculty

Suzanne L. Baldwin, Marion E. Bickford, Daniel Curewitz (lecturer), Paul G. Fitzgerald, Gregory D. Hoke, Linda C. Ivany, Christopher Junium, Jeffrey A. Karson, Laura K. Lutz, Zunli Lu, Robert Moucha, Cathryn R. Newton, Scott D. Samson, Christopher A. Scholz, Donald I. Siegel, Jay Thomas, 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.

Student Learning Outcomes

1. Conduct scientific research at the specialist level
2. Communicate scientific research in writing at the specialist level
3. Present and communicate Earth Science information to a general audience through undergraduate teaching of laboratories and recitations
4. Analyze and evaluate research results
5. Describe fundamental concepts in Earth sciences relevant to the area of specialization

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:

Harvey Teres, Director of Graduate Studies, 401 Hall of Languages, hmteres@syr.edu, 315-443-2174;

Faculty

Crystal Bartolovich, Dorri Beam, Michael Burkard, Dymna Callaghan, Jonathan Dee, 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, Patricia Roylance, George Saunders, Will Scheibel, Stephanie Shirilan, Bruce Smith, Dana Spiotta, Scott Stevens, Harvey Teres, Silvio Torres-Saillant, Meina Yates-Richard, Christopher Eng

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/>

Student Learning Outcomes

1. Work independently, including a capacity to generate research questions and to revise their own writing
2. Produce sustained article-length logical arguments about literature, film, and other cultural texts, and as a culminating exercise, to select three such essays for presentation in a portfolio connected by a common theme

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. 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 630/730) 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 \$14,826 to \$15,789. 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 (CCR 632) 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.

One Ph.D. University Fellowship is awarded to a new applicant of exceptional quality and determined by the Graduate committee and the department also competes for other various fellowships such as African American Fellowships, Ronald E. McNair Fellowships. All fellowships include tuition scholarships for full-time study as well as stipends from \$15,125 to \$25,290.

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.

Student Learning Outcomes

Forensic Science MS

1. Accurately define the field of forensic science and describe how it overlaps with their particular interests
2. Describe the relationship and interplay between forensic science and the legal system
3. Appreciate the importance of ethical standards and describe the means through which such standards are upheld in forensic science
4. Recognize the need for research in forensic science and know the process by which research is proposed and executed
5. Propose how the professional performance of forensic analyses may be elevated through research
6. Explain the importance and structure of quality assurance protocols and standards
7. Employ statistical methods and evaluate statistical results to solve problems in forensic science and to communicate findings

Forensic Science MS (Advanced Track)

1. Demonstrate how evidence is identified, processed, and collected at crime scenes
2. Explain how the chain of custody is preserved and documented
3. Demonstrate how evidence is analyzed in a laboratory, including presumptive testing and confirmatory testing with various instruments
4. Apply QA standards and protocols in laboratory or crime scene settings

Forensic Science MS (Nuclear Forensics Track)

1. Demonstrate safety measures and analysis procedures regarding nuclear materials

Program Requirements

Advanced Track

I. Gateway Courses - 19 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 668 - Crime Scene Investigation 3 credit(s)

II. Electives - 14 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

- FSC 640 - Special Topics in Advanced Forensics 3 credit(s)
- FSC 645 - Forensic Biochemical Analysis 3 credit(s)
- FSC 672 - Advanced Light Microscopy 3 credit(s)
- FSC 674 - Forensic DNA Analysis 3 credit(s)
- FSC 676 - Cold Cases 3 credit(s)
- BCM 678 - Perspectives in Biochemistry 3 credit(s)
- BIO 631 - Population Genetics 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)

Crime Scene Investigation Concentration

- 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)

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 664 - Latent Print Processing 3 credit(s)
- FSC 665 - Latent Prints 3 credit(s)
- FSC 671 - Firearms and Impressions Evidence II 3 credit(s)
- FSC 675 - Latent Prints 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 759 - Computer Crimes 3 credit(s)

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 669 - Science of Countering Weapons of Mass Destruction 3 credit(s)
- 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 640 Regulation and Compliance
- FSC 640 Drug Development, Testing, and Approval
- 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

- 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)
- FSC 640 Forensic Analysis of Biological Evidence
- FSC 645 - Forensic Biochemical Analysis 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 - Latent Print Processing 3 credit(s)
- FSC 665 - Latent Prints 3 credit(s)
- FSC 667 - Forensic Photography 3 credit(s)
- FSC 669 - Science of Countering Weapons of Mass Destruction 3 credit(s)
- FSC 671 - Firearms and Impressions Evidence II 3 credit(s)
- FSC 672 - Advanced Light Microscopy 3 credit(s)
- FSC 674 - Forensic DNA Analysis 3 credit(s)
- FSC 675 - Latent Prints II 3 credit(s)
- FSC 676 - Cold Cases 3 credit(s)
- FSC 690 - Independent Study 1-6 credit(s)
- 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 678 - Perspectives in Biochemistry 3 credit(s)
- BIO 631 - Population Genetics 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)
- IST 602 - Digital Forensics
- LAW 604 - Criminal Law 3 credit(s)

College of Arts and Sciences

- LAW 708 - Constitutional Criminal Procedure - Investigative 3 credit(s)
- LAW 718 - Evidence 4 credit(s)
- LAW 759 - Computer Crimes 3 credit(s)
- 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 626 - Persons in Social Context 3 credit(s)
- SWK 724 - Psychopathology 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

- FSC 640 - Special Topics in Advanced Forensics 3 credit(s) Forensic Analysis of Biological Evidence
- FSC 645 - Forensic Biochemical Analysis 3 credit(s)
- FSC 672 - Advanced Light Microscopy 3 credit(s)
- FSC 674 - Forensic DNA Analysis 3 credit(s)
- FSC 676 - Cold Cases 3 credit(s)
- BCM 678 - Perspectives in Biochemistry 3 credit(s)
- BIO 631 - Population Genetics 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)

Crime Scene Investigation Concentration

- 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

- FSC 644 - Forensic Chemical Analysis 4 credit(s)
- FSC 657 - Principles of Human Toxicology 3 credit(s)
- CHE 575 - Organic Spectroscopy 3 credit(s)
- CHE 677 - Proteins and Nucleic Acids Lab 3 credit(s)

Impressions Evidence Concentration

- FSC 661 - Firearms and Impression Evidence 3 credit(s)
- FSC 664 - Latent Print Processing 3 credit(s)
- FSC 665 - Latent Prints 3 credit(s)
- FSC 671 - Firearms and Impressions Evidence II 3 credit(s)
- FSC 675 - Latent Prints 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 759 - Computer Crimes 3 credit(s)

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 669 - Science of Countering Weapons of Mass Destruction 3 credit(s)
- 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 640 Regulation and Compliance
- FSC 640 Drug Development, Testing and Approval
- 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

- 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)

FSC 640 Forensic Analysis of Biological Evidence

- FSC 644 - Forensic Chemical Analysis 4 credit(s)
- FSC 645 - Forensic Biochemical Analysis 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 - Latent Print Processing 3 credit(s)
- FSC 665 - Latent Prints 3 credit(s)
- FSC 667 - Forensic Photography 3 credit(s)

College of Arts and Sciences

- FSC 668 - Crime Scene Investigation 3 credit(s)
 - FSC 669 - Science of Countering Weapons of Mass Destruction 3 credit(s)
 - FSC 671 - Firearms and Impressions Evidence II 3 credit(s)
 - FSC 672 - Advanced Light Microscopy 3 credit(s)
 - FSC 674 - Forensic DNA Analysis 3 credit(s)
 - FSC 675 - Latent Prints II 3 credit(s)
 - FSC 676 - Cold Cases 3 credit(s)
 - FSC 690 - Independent Study 1-6 credit(s)
 - IST 602 - Digital Forensics
 - 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 678 - Perspectives in Biochemistry 3 credit(s)
 - BIO 631 - Population Genetics 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 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

- 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)
- FSC 640 Forensic Analysis of Biological Evidence
- FSC 645 - Forensic Biochemical Analysis 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 - Latent Print Processing 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 669 - Science of Countering Weapons of Mass Destruction 3 credit(s)
 - FSC 671 - Firearms and Impressions Evidence II 3 credit(s)
 - FSC 672 - Advanced Light Microscopy 3 credit(s)
 - FSC 674 - Forensic DNA Analysis 3 credit(s)
 - FSC 675 - Latent Prints II 3 credit(s)
 - FSC 676 - Cold Cases 3 credit(s)
 - FSC 690 - Independent Study 1-6 credit(s)
 - IST 602 - Digital Forensics
 - 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)
 - BIO 631 - Population Genetics 3 credit(s)
 - BIO 662 - Molecular Genetics 3 credit(s)
 - BIO 663 - Molecular Biotechnology 4 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

- 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)
- LAW 604 - Criminal Law 3 credit(s)
- LAW 708 - Constitutional Criminal Procedure - Investigative 3 credit(s)
- LAW 718 - Evidence 4 credit(s)
- LAW 759 - Computer Crimes 3 credit(s)
- 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

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:

Jean Jonassaint

Professor of French and Francophone Studies

333 H.B. Crouse
315-443-5382
jjonassa@syr.edu

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:

An oral defense of a dossier of three term papers (one hour) or

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

Gerald Greenberg
ggreenbe@syr.edu
441 Hall of Languages
315-443-2875

Faculty

Tej K. Bhatia, Amanda Brown, Richard W. Buttny, Kevan Edwards, Gerald R. Greenberg, Jaklin Kornfilt, Elizabeth D. Liddy, Linda Milosky, 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:

Information Representation and Retrieval;

Language Acquisition;

Language, Culture, and Society;

Linguistic Theory;

Logic and Language; and

Teaching languages (English Language Teaching/ Foreign Language Teaching)

Student Learning Outcomes

1. Create claims about human communication and about the innate language competence in humans
2. Create claims about specific languages and the universal principles that underlie the knowledge of all languages
3. Create claims about social, psychological and biological aspects of language including language and thought, language acquisition, the representation of language in the human nervous system, disordered language, speech production
4. Create claims about the role of language in culture and society
5. Analyze, evaluate, and create claims about the history and structure of one or more particular languages; conduct an in-depth structural analysis of a non-Western language, or of a Western language (depending on the course)
6. Analyze, evaluate, and create claims about the relevance of all of the above to the practice of language pedagogy

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 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
Nancy McCracken
Research Associate Professor
Office: 3220 Hinds Hall
Tel: 315-443-3955
Email: njmccrac@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.

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 668 - Natural Language Processing 3 credit(s) or
- IST 637 - Digital Information Retrieval Services 3 credit(s)
- IST 664 - Natural Language Processing 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 Organization 3 credit(s)
- IST 687 - Introduction to Data Science 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 777 - Statistical Methods in Information Science and Technology 3 credit(s)
- LIN 611 - Semantics of Human Languages 3 credit(s)
- LIN 612 - Pragmatics: Meaning and Context 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)

College of Arts and Sciences

- LIN 626 - Structure of Standard Arabic 3 credit(s)
- LIN 673 - Language Variation and Change 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)
- PHI 651 - Logic and Language 3 credit(s)

Thesis Option: In substitution for six of the elective credits, the student may prepare a thesis under the supervision of the concentration advisor and other faculty participating in the Program and on a topic approved by the Program.

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.

Linguistics Core Courses (12 Credits)

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

Concentration Area Required Courses (12 Credits)

Required:

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

Choose 3 of the Following:

- CSD 616 - Introduction to Applied Phonetics 3 credit(s)
- CSD 627 - Speech and Language Disorders in Children 3 credit(s) *
- CSD 723 - Assessment of Children's Language 3 credit(s)
- LIN 591 - Second Language Acquisition 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)

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.

- 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 661 - Introduction to Historical Linguistics 3 credit(s)
- LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)
- LIN 673 - Language Variation and Change 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)
- RED 613 - Teaching Comprehension 3 credit(s)

Thesis Option: In substitution for 6 credits (2 Elective courses from Section 3, or 1 Elective course from Section 3 and 1 Language Development course from Section 2B), the student may prepare a thesis under the supervision of the concentration advisor and other faculty participating in the Program on a topic approved by the concentration advisor.

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.

Linguistics Core Courses (12 Credits)

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

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 682 - Life Histories/Narratives 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)
- 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 661 - Introduction to Historical Linguistics 3 credit(s)
- LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)
- LIN 673 - Language Variation and Change 3 credit(s)
- LIN 681 - Global Communication Through World Englishes 3 credit(s)
- LIN 691 - Universal Grammar and Second Language Acquisition 3 credit(s)
- SPA 636 - The Structure of Spanish 3 credit(s)

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.

Foreign Language Requirement (6 Credits)

The student must have the equivalent of advanced language competency in a European language or one year of non-Western language. If language competency is already achieved, you may take 2 additional elective courses.

Thesis Option: In substitution for six of the elective credits, the student may prepare a thesis under the supervision of the concentration advisor and other faculty participating in the Program and on a topic approved by 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)

College of Arts and Sciences

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.

Linguistics Core Courses (12 Credits)

- LIN 571 - Topics in Sociolinguistics 3 credit(s)
- LIN 601 - Introductory Linguistic Analysis 3 credit(s)
- LIN 631 - Phonological Analysis 3 credit(s)
- LIN 641 - Syntactic Analysis 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) *
- PHI 551 - Mathematical Logic 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 672 - Language, Culture, and Society 3 credit(s)
- CIS 668 - Natural Language Processing 3 credit(s)
- IST 664 - Natural Language Processing 3

credit(s)

- CSD 622 - Development of Speech and Language 3 credit(s)
- LIN 591 - Second Language Acquisition 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)
- LIN 626 - Structure of Standard Arabic 3 credit(s)
- LIN 671 - Dimensions of Bilingualism and Multiculturalism 3 credit(s)
- LIN 673 - Language Variation and Change 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 651 - Logic and Language 3 credit(s)
- PHI 665 - Problems in Philosophy of Language 3 credit(s)
- SPA 636 - The Structure of Spanish 3 credit(s)

Foreign Language Requirements (3 Credits) or LIN 606 Field Methods in Linguistics(3 Credits)

To fulfill the Foreign Language Requirement, a student in the Linguistic Theory concentration must enroll in a language class other than her/his native language or English designated as [LANGUAGE DESIGNATION] 620. The language must be selected in consultation with the Concentration Advisor and cannot be a language the student has significant familiarity with. The student must fulfill all the requirements of the course, will receive a grade in that course, and will earn 3 credits toward her/his degree. In addition, to complete the requirement, the student must write two papers (of approximately 15 pages each) one on the phonology and one on the syntax of the particular language. These papers are graded by the Concentration Advisor or other faculty to be designated by the Concentration Advisor. Successful completion of the language course and the two papers completes the foreign language requirement. The student will enroll in the relevant language course by her/his third semester in the MA program.

With the permission of the Concentration Advisor, this requirement can also be fulfilled by taking LIN 606 Field Methods in Linguistics, when offered.

Thesis Option: In substitution for six of the elective credits, the student may prepare a thesis under the supervision of the concentration advisor and other faculty participating in the Program and on a topic approved by the Program.

Degree Total: 30 Credits

5. Logic and Language

Concentration Advisor

Michael Rieppel

Assistant Professor

Office: 523 Hall of Languages

Tel: 315-443-5821

Email: morieppe@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.

Linguistics Core Courses (12 Credits)

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

Concentration Area Required Courses (6 Credits)

Required:

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

Formal Languages. Choose one of the following:

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

Concentration Area Elective Courses (6-12 Credits)

a. Additional Courses from list of 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

- CIS 767 - Mathematical Theory of Computation 3 credit(s)
- LIN 626 - Structure of Standard Arabic 3 credit(s)
- LIN 673 - Language Variation and Change 3 credit(s)

College of Arts and Sciences

- LIN 741 - Advanced Syntax 3 credit(s)
- 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 576 - Philosophy of Mind 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)
- SPA 636 - The Structure of Spanish 3 credit(s)

Foreign Language Requirement (0-6 Credits)

Up to 6 credits of study in a single foreign language. One year of a non-Western language is strongly recommended.

Thesis Option: In substitution for six of the elective credits, the student may prepare a thesis under the supervision of the concentration advisor and other faculty participating in the Program and on a topic approved by the Program.

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

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

Linguistics Core Courses (12 Credits)

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

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

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

Concentration Area Elective Courses (12 Credits)

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)

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 613 - Teaching Comprehension 3 credit(s)
- RED 616 - Academic Language and Reading 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 657 - Basics of Information Retrieval Systems 3 credit(s)
- IST 659 - Data Administration Concepts and Database Management 3 credit(s)
- IST 664 - Natural Language Processing 3 credit(s)
- IST 681 - Metadata 3 credit(s)
- IST 686 - Social Media in the Organization 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

College of Arts and Sciences

credit(s)

- SPA 636 - The Structure of Spanish 3 credit(s)

Thesis Option: In substitution for six of the elective credits, the student may prepare a thesis under the supervision of the concentration advisor and other faculty participating in the Program and on a topic approved by the Program.

Mathematics, MS

Chair

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

Faculty

Uday Banerjee, Pinyuen Chen, Dan Coman, J. Theodore Cox, Steven Diaz, Nicole Fonger, Jack E. Graver, Duane Graysay, Philip S. Griffin, 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, Minghao Rostami, 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.

Student Learning Outcomes

1. Demonstrate competency beyond the undergraduate level in the core areas of algebra and analysis by solving problems using advanced techniques
2. Demonstrate competency beyond the undergraduate level in an area of applicable mathematics by solving problems using advanced techniques
3. Read and construct rigorous proofs
4. Effectively communicate mathematical ideas

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), numerical linear algebra, computational fluid dynamics. Faculty: Banerjee, Lutoborski, Rostami, 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: Ucci, Wehrli, Wylie, Yuan.

Mathematics Education

Secondary mathematics education, teacher learning, mathematical representations, out-of-school mathematics practice, teacher development. Faculty: Fonger, Graysay, 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 2017-2018 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 \$17,765 to \$21,709 in addition to tuition scholarship for 24 credits per year. Additional summer support is generally available.

Syracuse University Graduate Fellowships:

Tax-free stipends are \$25,290 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 supports mathematical research over a broad range of pure and applied mathematics, as well as mathematics education, mathematical statistics, and interdisciplinary areas. Most of the non-book resources are online and includes an extensive collection of databases and journals supporting the mathematical sciences. In addition, the library provides a growing collection of ebooks.

Students may borrow course reserved textbooks, laptops, TI graphing calculators, and geometry kits from the Carnegie Library service desk. A computer lab in the library provides software for programming, statistical and data analysis, and video and multimedia.

Carnegie Library is home to collections in the sciences, including engineering and computer science, the life sciences, and the physical sciences and hosts a strong collection of databases, journals, and ebooks supporting all disciplines. The historic Reading Room gives the library a distinctive ambience and provides a quiet place for students to study.

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 English, 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.

Student Learning Outcomes

1. Accurately define the field of forensic science and describe how it overlaps with their particular interests
2. Describe the relationship and interplay between forensic science and the legal system
3. Appreciate the importance of ethical standards and describe the means through which such standards are upheld in forensic science
4. Explain the importance and structure of quality assurance protocols and standards
5. Apply QA standards and protocols in death scene settings
6. Employ statistical methods and evaluate statistical results to solve problems in forensic science and to communicate findings
7. Demonstrate how crime scenes are processed, how chain of custody is preserved and documented, and how medicolegal death investigators and crime scene investigators work together
8. Demonstrate the methods of forensic pathology
9. Explain the duties of a medicolegal death investigator

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

Herbert G. Ruffin II
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 II, S.N. Sangmpam, James G. Williams

Student Learning Outcomes

1. Demonstrate knowledge of cultural text, and expression in the Pan-African World
2. Demonstrate knowledge of Pan African ideas and movements.
3. Learn how gender functions within the contours of the Black/Pan African experience.
4. Demonstrate effective written and oral communication

College of Arts and Sciences

5. Demonstrate the ability to develop and convey complex ideas into accessible information within the field of Black/Pan African Studies

6. Develop and tests their skills in technology, methodologies and research methods in applied settings or humanist inquiries

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 & 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 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, Christopher Noble, 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 28 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.

Student Learning Outcomes

1. Write with a good degree of clarity, precision, and organization
2. Have a broad understanding of, and ability to explain clearly, an important philosophical problem and its history
3. Demonstrate familiarity with a large amount of philosophical literature relevant to their topic of study
4. Have a good ability to critically evaluate philosophical theories and arguments

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

Marina Artuso, Stefan Ballmer, Steven Blusk, Mark Bowick, Duncan Brown, Simon Catterall, Jay Hubisz, Matthew LaHaye, John Laiho, Edward D. Lipson, M. Lisa Manning, M. Cristina Marchetti, Alan Middleton, Liviu Movileanu, Joseph Paulsen, Britton Plourde, Carl Rosenzweig, Matthew Rudolph, Peter Saulson, Eric A. Schiff, Jennifer Schwarz, Tomasz Skwarnicki, Mitchell Soderberg, Paul Souder, Sheldon Stone, Gianfranco Vidali, Scott Watson

The Department of Physics has 28 faculty members, 18 postdoctoral research associates, and about 80 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.

Student Learning Outcomes

1. Developing demonstrable skills in conducting and communicating scientific research at the specialist level
2. Acquire broad knowledge of physics at graduate level specifically quantum, classical and statistical mechanics and electromagnetism
3. Acquire lab skills
4. Acquire computational skills

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 in MS program coursework.

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.

Particle Physics and Cosmology

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. Catterall, 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, 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. One postdoctoral fellow.

Biological Physics

Experimental studies of single-molecule biophysics. Methods include membrane protein reconstitution into planar lipid membranes and lipid vesicles, rational protein design, targeted chemical modification, as well as a variety of electrical and optical platforms for the analysis of transmembrane transport under a broad range of contexts. These research studies are also aimed at the design, creation, and validation of nanobiosensors for the detection of biomolecules at high temporal and spatial resolution. Movileanu.

Soft Condensed Matter

Tabletop experiments studying nonlinear and emergent behaviors in soft systems. Examples include the wrinkling, crumpling, and folding of thin elastic sheets, and the arrangements of solid particles in a sludge. These scenarios feature soft, easily deformed materials that are common in nature and industry. The overarching goal is to uncover the fundamental principles that govern their behavior when they are pushed far away from the low-energy or spatially-uniform states that they prefer. Paulsen. One postdoctoral fellow.

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 performed 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_s, D_s, Y(1D) and made the first measurements of several very important decay modes of these objects. Artuso, Blusk, Mountain, Rudolph, 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, 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.

Graduate Awards

Figures for graduate appointments represent 2017-2018 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 \$24,250.00 (2017-2018) and tuition

College of Arts and Sciences

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 \$24,250.00 (2017-2018) 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 \$25,290.00 (2017-2018) for nine months of full-time study; tuition scholarship for a total of 30 credits during the academic year.

Religion, MA

Chair:

Philip P. Arnold
501 Hall of Languages
315-443-3863

Director of Graduate Studies:

Virginia Burrus
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, Biko M. Gray, M. Gail Hamner, Tazim R. Kassam, 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 focuses on the category "religion" as an intellectually provocative and problematic concept rather than simply as a descriptive, institutional, or phenomenological label. The Department takes 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 of the study of religion that align with the distinctive research profile of its faculty. 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.

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

Student Learning Outcomes

1. Students will develop a broad sense of the field of the academic study of religion
2. Students will be able to situate, explicate, and successfully execute interdisciplinary research within the current field of the academic study of religion
3. Students will be able to demonstrate expertise in a particular traditional or regional religious culture
4. Students will achieve proficiency in one language other than English relevant to their scholarly projects
5. Students will achieve academic excellence that will enable them, upon graduation, to enter Syracuse University's doctoral program, to enter another doctoral program in religion, to teach at a community college or independent high school, or to enter the non-profit or government employment sector

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

M. Emma Ticio Quesada
328 HBC
315-443-5488

Faculty

Gail Bulman, Kathryn Everly, Stephanie Fetta, Myrna García-Calderón, Alejandro García-Reidy, Alicia Rios, Maria Emma Ticio Quesada

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.

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

College of Arts and Sciences

instruction. They have the opportunity to obtain the Certificate in University Teaching through participation in the Future Professoriate program.

Student Learning Outcomes

1. Identify the different literary theories, analyze and criticize linguistic, literary, and cultural representations of the Spanish-speaking world
2. Recognize the language specific structures of Spanish and its dialects
3. Master the most important literary, linguistic, and cultural fields of the Spanish-speaking world
4. Conduct original research in Spanish on the linguistic, literary and cultural fields
5. Demonstrate cultural awareness of the specificity of the different areas of study

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

Faculty

Academic: Karen Doherty, Kimberly Lamparelli, Soren Lowell, Linda Milosky, Joseph Pellegrino, Jonathan Preston, Ellyn Riley, Victoria Tumanova and Kathy Vander Werff; Clinical: Megan Leece, Anita Lightburn, Meghan Lister, Sue Ellen Maxfield, Ramani Voleti, Tara Jones; Adjunct instructors for specialty areas: Bonnie Hulslander, Eileen Marrinan, Carolyn Tamayo, Will Sullivan and Lauren Westby.
Emeritus Professors: Raymond Colton, Mary Louise Edwards and Janet Ford

Program Description:

The M.S. program in speech-language pathology

is a nationally ranked, accredited program with a long history of excellence. While pursuing a speech-language pathology degree, students have the opportunity to work with researchers in state-of-the-art laboratories and to learn from certified speech-language pathologists whose expertise cover all areas of speech and language across the life span. 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. The M.S. program 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.

Students in speech-language pathology participate in a wide range of diagnostic and therapy experiences under the direct supervision of clinical faculty. After obtaining a minimum of 75 hours of on-campus clinical practicum in the department's Gebbie Speech-Language-Hearing Clinic (50 hour minimum for students who bring in 25 clock hours from their undergraduate program), students are assigned 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.

Completion of the master's program provides students with the academic and practicum qualifications for the Certificate of Clinical Competence (CCC) 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.

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, 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700.

Admission:

Admission occurs once per year for fall entry. Applicants must complete a common application by January 1 for fall admission consideration. See our website for links to the online applications: http://csd.syr.edu/admissions_info/How-To-Apply.html

Applicants are required to submit GRE scores, undergraduate transcripts, and three letters of recommendation. Although the minimum GPA is 3.0, a 3.4 or higher is recommended to be competitive. 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.

Degree requirements:

The typical master's degree program for a student with a background in communication disorders ranges from 46 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. 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.

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.

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.

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.

Doctorate

Audiology, AuD

Chair

Karen A. Doherty, Ph.D.
621 Skytop Road, Suite 1200

Contact:

Phone: 315-443-9637
Email: csd@syr.edu

Faculty

Academic: Karen Doherty, Joseph Pellegrino, Beth Prieve, Kathy Vander-Werff; Clinical Instructors: Kristen Kennedy and Tammy Kordas; Adjunct instructors for specialty areas: James Feuerstein, Lindsay Kurek, Trista Channels, Sarabeth Wojnowicz and Stefania Arduini

Program Description:

The clinical Doctor of Audiology (Au.D.) at Syracuse University is a nationally ranked, accredited programs with a long history of excellence. While pursuing an audiology degree, students have the opportunity to work with researchers in state-of-the-art laboratories and to learn from certified audiologists who have expertise that span all areas of 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.

The Au.D. program provides both substantive knowledge and practical experience through a carefully selected sequence of academic study, clinical practice, and research training. 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 the American Speech-Language-Hearing Association (ASHA), 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 communication sciences and disorders, but we highly recommend completing background coursework in the areas of anatomy & physiology of the speech and hearing mechanism and basic clinical audiology prior to entering the program.

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 large metropolitan areas and also in less populated areas that serve more rural communities.

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.) program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech Language-Hearing Association, 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700.

Admission:

Admission occurs once per year for fall entry. Applicants must complete a common 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

Applicants are required to submit GRE scores, undergraduate transcripts, and three letters of recommendation. Although the minimum GPA is 3.0, a 3.4 or higher is recommended to be competitive. 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.

Degree Requirements:

This is a four-year program that requires the completion of 67 credits of academic coursework and 25 clinical practicum credits for a total of 92 graduate credits. Students will complete the Audiology Intensive Exam at the end of their third year of study, prior to their one-year externship placement.

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.

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.

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.

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.

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

Kristen Kennedy, Tammy Kordas, 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 Stefania Arduini

Program Description

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. 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 fifth

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. Each student in the AuD/PhD program must have a faculty research sponsor, and this sponsorship must be agreed upon prior to the time of enrollment in the dual program.

Degree Requirements:

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.

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.

Audiology, PhD

Chair

Karen A. Doherty, Ph.D.
621 Skytop Road, Suite 1200
315-443-9637

Faculty

Karen Doherty, Beth Prieve, Kathy Vander Werff

Student Learning Outcomes

1. Demonstrate a basic knowledge of central concepts in Audiology
2. Apply knowledge of analytical/methodological skills used to evaluate and conduct research
3. Demonstrate ability to formulate hypotheses based on current concepts in the field and design, conduct, and interpret their own research

4. Demonstrate skills in communicating scientific research results in a clear and effective manner

5. Demonstrate skills in obtaining research funding

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, 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 Doctor of Audiology program in the department.

Biology, PhD

Graduate Program Directors:

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

James Hewett, 315-443-9613
jhewett@syr.edu
350 Life Science Complex

Contact

Lynn Fall

Graduate Program Administrator
315-443-9154
lfall@syr.edu

114 Life Sciences Complex

Faculty

David M. Althoff, Katie Becklin, 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 and 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.

College of Arts and Sciences

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 analytical 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 is desirable 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.

Student Learning Outcomes

1. Demonstrated ability in Scientific Method/ Research - ability to independently approach the design and execution of experiments addressing a research problem in a robust way
2. Possess knowledge of their subfield sufficient to formulate and address contemporary research questions
3. Ability to explain and analyze concepts from additional subfields of biological sciences related to their own
4. Develop communication and synthetic skills for presentation in oral, poster and written formats
5. Demonstrate an awareness of matters associated with ethics and the responsible conduct of research

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 2017-2018 academic year is \$ 26,750. 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:

Timothy M. Korter
1-014 Center for Science and Technology
315-443-0269, tmkorter@syr.edu

Faculty

Mark S. Braiman, Carlos A. Castañeda, Joseph Chaiken, Arindam Chakraborty, John D. Chisholm, Robert P. Doyle, John M. Franck, James L. Hougland, Bruce S. Hudson, Tara Kahan, James Kallmerten, Ivan V. Korendovych, Timothy M. Korter, Yan-Yeung Luk, Olga V. Makhlynets, Mathew M. Maye, Karin Ruhlandt, James T. Spencer, Michael B. Sponsler, Nancy I. Totah, Weiwei Zheng, Jon Zubiate

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, 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.

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.

Student Learning Outcomes

1. Develop knowledge in a specialized area of chemistry
2. Develop broad overview of the current state of chemical knowledge outside one's own area of specialization
3. Use instrumentation and techniques for problem solving in chemistry
4. Organize and interpret scientific data for written and oral presentation
5. Critically analyze and evaluate one's own findings and those of others
6. Disseminate research findings
7. Develop creativity and independence in pursuing a scientific goal
8. Extend the state of scientific knowledge in one's own area of specialization

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.

College of Arts and Sciences

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

Emily B. Ansell, Kevin Antshel, D. Bruce Carter, Catherine A. Cornwall, Amy H. Criss, Joseph W. Ditre, Tanya L. Eckert, Joshua C. Felver, Les A. Gellis, Randall S. Jorgenson, Michael L. Kalish, Lawrence J. Lewandowski, David Kellen, Stephen A. Maisto, Brian K. Martens, Leonard Newman, Tibor Palfai, Aesoon Park, Natalie Russo, Lael J. Schooler, Peter A. Vanable, Laura E. VanderDrift, and Sarah Woolf-King.

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 155 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 typically between 20-25 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.

Student Learning Outcomes

1-A-1. Become proficient in critically reviewing relevant psychological research literature demonstrating understanding of research design and analysis topics and problems

1-A-2. Be able to design and select research strategies to effectively address particular research questions

1-B-1. Understand relevant psychological theory and develop research projects on a well-conceptualized theoretical base

1-B-2. Conduct and defend a master's thesis and doctoral dissertation

1-B-3. Students will be able to make presentations at professional meetings

1-B-4. Students will have the ability to author manuscripts based on their research endeavors

2-A-1. Students will be able to conceptualize and design research projects that provide data relevant to clinically-relevant psychological problems

2-B-1. Students will be able to provide proficient psychological assessment that is conceptually relevant and capable of addressing a particular clinical question or area of inquiry

2-B-2. Students will be able to conduct psychological interviews for purpose of diagnosis and case conceptualization

2-B-3. Students will be able to provide therapeutic intervention to clients demonstrating adequate intervention skill

2-B-4. Students will be able to make choices of intervention techniques based on theory and understanding of support for the interventions

3-A-1. Students will be capable of understanding and critiquing the professional literature in areas relevant to their research and practice

3-A-2. When faced with a research or a clinically applied question, students will consult the empirical literature to generate hypotheses and formulate evidence-based responses

3-B-1. Students will be able to seek out and benefit from learning opportunities that are specifically connected to their programs of study during graduate training and will continue to seek out opportunities post-graduation

3-B-2. Students will regularly access the scientific literature related to their areas of interest

4-A-1. Students will be able to understand the influences of cultural and contextual factors on psychological functioning

4-A-2. Students will be able to provide clinical services to clientele diverse in attributes such as, but not limited to, age, ethnicity, religion, sexual orientation, and presenting problems

4-A-3. Students will be able to determine when they need consultation based on individual difference variables on a clinical case or research project because their information base or experience is not adequate to address a problem effectively

4-B-1. Students will be able to critically evaluate the literature supporting assessment and intervention methods for their adequacy of application to minority and other groups

5-A-1. Students will understand the Ethical Principles of Psychologists and will be able to think adaptively regarding how these principles apply to different situations

5-A-2. Students will cultivate an attitude of respect for other individuals and for ethical practice in their work

5-B-1. Students will become members of professional organizations and will be actively involved in them

5-B-2. Students who work in clinical practice will connect with fellow professionals and will establish relationships that will allow for adequate consultation on cases when needed

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 psychotherapy, 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 sixth year. The internships carry stipends and may be completed at any APA-accredited agency in the United States or Canada.

College of Arts and Sciences

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 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:

broad training concentrated in the natural sciences or engineering;

a combination of breadth, specialization, and integration in the sciences or engineering;

supervised college teaching experience in the candidate's science specialty, either at Syracuse University or at another college in the Syracuse vicinity;

seminars in curriculum development and methods of teaching science in higher education; and

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:

the research tools requirement;

the foundation area of 9 credits;

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, Leonard Grant, Krista Kennedy, Rebecca Moore Howard, Aja Martinez, 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 department 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.

Degree Requirements

To earn the Ph.D., a student must complete a 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.) 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 2017-2018 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 \$18,000.00, tuition scholarship for 9 credits for the fall and spring semester, and 6 credits in the summer. Teaching assistants, appointed by the department of Writing Studies, Rhetoric, and Composition 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.

Student Learning Outcomes

1. Engage with and undertake reading, research, and scholarly writing in rhetoric, composition, and writing studies, becoming familiar with and fluent in the major terms, debates, theories, methods/methodologies, genres, and histories of the field
2. Engage with and undertake reading, research, and writing that allows them to explore additional areas in the field that fall outside the core courses, including elective courses offered by the department and electives in other disciplines
3. Demonstrate their understanding of core texts in the field through a two-part written exam that takes place over two weeks; a) research and write a potentially publishable scholarly essay about an area of the field in which they have a specific interest/research question; b) work through and provide an annotated bibliography on a core set of readings that will prepare them to undertake their dissertation prospectuses and projects
4. Research and write a book-length project that makes an original contribution to scholarship in the field
5. Develop and improve as teachers and writing consultants who offer challenging college-level writing courses/consulting sessions, informed by the latest theories of writing pedagogy and writing center theory
6. Develop as professionals and acquire and practice skills and strategies that will prepare them for their future careers as faculty members

Earth Sciences, PhD

Laura K. Lautz, Chair
204 Heroy Geology Laboratory,
315-443-2672

Faculty

Suzanne L. Baldwin, Marion E. Bickford, Daniel Curewitz (lecturer), 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, Jay Thomas, 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.

Student Learning Outcomes

1. Conduct independent research in the Earth Sciences at the specialist level
2. Present and communicate Earth Science information to a general audience through undergraduate teaching of laboratories and recitations
3. Analyze and evaluate research results
4. Communicate scientific research in writing at the specialist level
5. Describe fundamental concepts in earth sciences relevant to the area of specialization

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 plasmasspectrometer, 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:

Harvey Teres, Director of Graduate Studies, 401 Hall of Languages, hmteres@syr.edu, 315-443-2174;

Faculty

Crystal Bartolovich, Dorri Beam, Michael Burkard, Dymrna Callaghan, Jonathan Dee, 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, Patricia Roynance, George Saunders, Will Scheibel, Stephanie Shirilan, Bruce Smith, Dana Spiotta, Scott Stevens, Harvey Teres, Silvio Torres-Saillant, Meina Yates-Richard, Christopher Eng

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/>

Student Learning Outcomes

1. Work independently, including a capacity to generate research questions and to revise their own writing
2. Ability to produce a sustained logical argument about literature, film and/or other cultural texts in both essay form and in a substantial dissertation (200-300) pages that makes an original contribution to the discipline of English

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-

College of Arts and Sciences

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 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). 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, 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 \$14,826 to \$15,789. 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 (CCR 632) 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.

One Ph.D. University Fellowship is awarded to a new applicant of exceptional quality and determined by the Graduate committee and the department also competes for other various fellowships such as African American Fellowships, Ronald E. McNair Fellowships. All fellowships include tuition scholarships for full-time study as well as stipends from \$15,125 to \$25,290.

Experimental Psychology, PhD

Cognition, Brain, & Behavior

Contact:

Lael Schooler, Ph.D.
509 Huntington Hall
lschoole@syr.edu
(315)443-3669

Faculty

Emily B. Ansell, Kevin Antshel, D. Bruce Carter, Catherine A. Cornwell, Amy H. Criss, Joseph W. Ditre, Tanya L. Eckert, Joshua C. Felver, Les A. Gellis, Randall S. Jorgenson, Michael L. Kalish, Lawrence J. Lewandowski, David Kellen, Stephen A. Maisto, Brian K. Martens, Leonard Newman, Tibor Palfai, Aesoon Park, Natalie Russo, Lael J. Schooler, Peter A. Vanable, Laura E. VanderDrift, and Sarah Woolf-King.

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 computational methods and theory to understand fundamental mechanisms underlying cognitive and neural processing. Cognitive and perceptual processes under study include visual perception, memory, learning, attention, knowledge development, concepts and categories, problem solving, reasoning, and decision making. Research in this area contributes to the 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 cognitive psychology. Students are assigned a core faculty member as primary advisor upon entry to the program and are required to actively participate in research through the duration of their program of study. Participation is designed to facilitate the development of research and professional skills 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.

Student Learning Outcomes

1. Explain fundamental mechanisms, underlying cognitive and neural processing
2. Develop a toolbox of computational skills
3. Synthesize the literature and develop novel

ideas, approaches, methods, or theory to advance their sub-field

4. Conduct original research in the field
5. Organize and interpret scientific data for written and oral presentation
6. Follow ethical guidelines of the American Psychological Association
7. Demonstrate expertise as a psychology instructor

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 - Bayesian Statistical Analysis 3 credit(s)

Cognitive/Neural Bases (12 credits):

- PSY 736 - Advanced Introduction to Cognitive Psychology 3 credit(s)

and 3 of the following

- 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)

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

The first year project is due by May 30th of the first year. Students are required to propose their master's thesis by September 30th of their second year and complete the master's thesis (or equivalent research project for students admitted with credit for an earned master's degree) by May 30th of their second year. Students pass the Ph.D. qualifying exam by May 30th of their third year. The Ph.D. dissertation proposal must be completed by September 30th of the 4th year. 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, research interests, skills, and experience, 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, PhD

Chair

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

Faculty

Uday Banerjee, Pinyuen Chen, Dan Coman, J. Theodore Cox, Steven Diaz, Nicole Fonger, Jack E. Graver, Duane Graysay, Philip S. Griffin, 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, Minghao Rostami, 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.

Student Learning Outcomes

1. Demonstrate mastery in the core areas of algebra/topology and analysis by solving problems using advanced techniques
2. Demonstrate advanced knowledge in their chosen specialty and in an additional area of mathematics by solving problems using advanced techniques
3. Plan and successfully conduct original research, producing results worthy of publication in peer reviewed journals
4. Effectively communicate mathematical ideas

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 Graham Leuschke, 215 Carnegie Building, or on our web site: 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.

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), numerical linear algebra, computational fluid dynamics. Faculty: Banerjee, Lutoborski, Rostami, 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: Ucci, Wehrli, Wylie, Yuan.

Mathematics Education

Secondary mathematics education, teacher learning, mathematical representations, out-of-school mathematics practice, teacher development. Faculty: Fonger, Graysay, 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 2017-2018 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 \$17,765 to \$21,709 in addition to tuition scholarship for 24 credits per year. Additional summer support is generally available.

Syracuse University Graduate Fellowships:

Tax-free stipends are \$25,290 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 supports mathematical research over a broad range of pure and applied mathematics, as well as mathematics education, mathematical statistics, and interdisciplinary areas. Most of the non-book resources are online and includes an extensive collection of databases and journals supporting the mathematical sciences. In addition, the library provides a growing collection of ebooks.

Students may borrow course reserved textbooks, laptops, TI graphing calculators, and geometry kits from the Carnegie Library service desk. A computer lab in the library provides software for programming, statistical and data analysis, and video and multimedia.

Carnegie Library is home to collections in the sciences, including engineering and computer science, the life sciences, and the physical sciences and hosts a strong collection of databases, journals, and ebooks supporting all disciplines. The historic Reading Room gives the library a distinctive ambience and provides a quiet place for students to study.

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, Christopher Noble, 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 28 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.

Student Learning Outcomes

1. Write with a good degree of clarity, precision, and organization
2. Have a broad understanding of, and ability to explain clearly, an important philosophical problem and its history
3. Demonstrate familiarity with a large amount of philosophical literature relevant to their topic of study
4. Have a good ability to critically evaluate philosophical theories and arguments

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.

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 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

Marina Artuso, Stefan Ballmer, Steven Blusk, Mark Bowick, Duncan Brown, Simon Catterall, Jay Hubisz, Matthew LaHaye, John Laiho, M. Lisa Manning, M. Cristina Marchetti, Alan Middleton, Liviu Moveleanu, Joseph Paulsen, Britton Plourde, Carl Rosenzweig, Matthew Rudolph, Peter Saulson, Eric A. Schiff, Jennifer Schwarz, Tomasz Skwarnicki, Mitchell Soderberg, Paul Souder, Sheldon Stone, Gianfranco Vidali, Scott Watson

The Department of Physics has 28 faculty members, 18 postdoctoral research associates, and about 80 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.

Student Learning Outcomes

1. Conduct original research to develop in-depth knowledge in subfield of expertise
2. Acquire broad knowledge of physics at graduate level specifically quantum, classical and

statistical mechanics and electromagnetism

3. Orally communicate research effectively to both specialist and general audiences.
4. Communicate research effectively in writing to both specialist and general audiences
5. Acquire lab skills
6. Acquire computational skills

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.

Particle Physics and Cosmology

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. Catterall, 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, 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. One postdoctoral fellow.

Biological Physics

Experimental studies of single-molecule biophysics. Methods include membrane protein reconstitution into planar lipid membranes and lipid vesicles, rational protein design, targeted chemical modification, as well as a variety of electrical and optical platforms for the analysis of transmembrane transport under a broad range of contexts. These research studies are also aimed at the design, creation, and validation of nanobiosensors for the detection of biomolecules at high temporal and spatial resolution. Movileanu.

Soft Condensed Matter

Tabletop experiments studying nonlinear and emergent behaviors in soft systems. Examples include the wrinkling, crumpling, and folding of thin elastic sheets, and the arrangements of solid particles in a sludge. These scenarios feature soft, easily deformed materials that are common in nature and industry. The overarching goal is to uncover the fundamental principles that govern their behavior when they are pushed far away from the low-energy or spatially-uniform states that they prefer. Paulsen. One postdoctoral fellow.

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

College of Arts and Sciences

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, Rudolph, 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, 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.

Graduate Awards

Figures for graduate appointments represent 2017-2018 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 \$24,250.00 (2017-2018) 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 \$24,250.00 (2017-2018) 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 \$25,290.00 (2017-2018) for nine months of full-time study; tuition scholarship for a total of 30 credits during the academic year.

Religion, PhD

Chair:

Philip P. Arnold
501 Hall of Languages
315-443-5713

Director of Graduate Studies:

Virginia Burrus
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, 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 a unique, creative, and rigorous program of study that emphasize both research and teaching. The study of religion at Syracuse University focuses on the category "religion" as an intellectually provocative and problematic concept rather than simply as a descriptive, institutional, or phenomenological label. The Department takes two premises as a 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 of the study of religion that align with the distinctive research profile of its faculty. 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.

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

Student Learning Outcomes

1. Students will be able to articulate the history, development, and current state of the field of the academic study of religion
2. Students will be able to situate, explicate, and successfully execute interdisciplinary research within the current field of the academic study of religion
3. Students will be able to demonstrate expertise in a particular traditional or regional religious culture
4. Students will achieve proficiency in two languages other than English that are relevant to their scholarly projects
5. Students will be able to teach effectively as undergraduate religion instructors
6. Students will be able to communicate effectively, orally and in writing, to specialist audiences
7. Students will achieve academic excellence that will enable them, upon graduation, to secure professional placement as a teacher at a college or university, as an administrator at a college or university, as a teacher at a community college or independent high school, or in a position in academic publishing or national academic conferences or centers

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 course credits, with 12 additional dissertation hours. Of the 36 course credits,

College of Arts and Sciences

24 must be taken as regular seminars in the Department of Religion. The remaining 12 course credits may be distributed between graduate level courses offered in other departments within the university (or in a university in the area with whom we have reciprocal registration) and/or independent studies arranged with a faculty member in the department or the university with the approval of the advisor. Doctoral students entering from other universities are required to take the sequence 601 and 603 in their first year of study and then pass a proficiency exam in theories of religion at the end of the second semester in the Ph.D. program. (A student having passed the exam while completing an M.A. in the Syracuse Religion Department is exempt from taking the courses and the exam again). The student must demonstrate competence in at least two languages other than English, one before matriculation and the other before the beginning of the third year of the study.

After completing course work, the student is required to pass a set of three comprehensive examinations on:

1. one traditional or regional religious culture from the above list;
2. one of the three concentrations; and
3. a problem of the student's choosing, in consultation with their advisor.

The completion of a dissertation and its oral defense are required to complete the Ph.D.

School Psychology, PhD

School Psychology*

Contact:

Tanya L. Eckert, Ph.D.
430 Huntington Hall
taeckert@syr.edu
(315)443-3141

Faculty

Emily B. Ansell, Kevin Antshel, Benita A. Blachman, D. Bruce Carter, Catherine A. Cornwell, Amy H. Criss, Joseph W. Ditre, Tanya L. Eckert, Joshua C. Felver, Les A. Gellis, Randall S. Jorgenson, Michael L. Kalish, Lawrence J. Lewandowski, David Kellen, Stephen A. Maisto, Brian K. Martens, Leonard Newman, Tibor Palfai, Aesoon Park, Natalie Russo, Lael Schooler, Peter A. Vanable, Laura VanderDrift, and Sarah Woolf-King.

The school psychology program at Syracuse University is accredited by the American Psychological Association (APA Office of Program Consultation and Accreditation, 750 First Street 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

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.

Student Learning Outcomes

1. Demonstrate mastery regarding children's development in cognitive, affective, social, academic, and adaptive domains
2. Demonstrate mastery regarding school as

an organization, instructional practices, and communication that occurs in multidisciplinary systems

3. Demonstrate mastery regarding empirical research in psychology and education
4. Demonstrate mastery evaluating a variety of research methodologies
5. Demonstrate mastery regarding rigorous and creative applications of experimental design, data analysis, and interpretation skills
6. Demonstrate mastery of "best practices" in home- and school-based intervention and consultation
7. Demonstrate mastery of "best practices" in assessment and evaluation
8. Demonstrate mastery in "best practices" in counseling
9. Demonstrate mastery of diversity awareness and sensitive service delivery
10. Demonstrate mastery of how issues of diversity affect the manner and nature of interactions with others
11. Demonstrate mastery in adapting or modifying practices in response to those being served
12. Demonstrate mastery in professional skills across a wide range of settings including clinics, hospitals, and home with diverse student populations and disabilities
13. Demonstrate mastery of data-based problem solving in all professional decisions
14. Demonstrate independence and responsibility in research participation and clinical work throughout graduate training
15. Maintain certification or licensure while attending continuing education functions as necessary and required by profession
16. Demonstrate mastery of problem-solving, interpersonal influence, and implementation support skills in all consultation cases
17. Demonstrate mastery working effectively and collaboratively with people and agencies
18. Demonstrate mastery of knowledge and understanding of professional, ethical, and legal standards
19. Demonstrate mastery of upholding these standards in professional decision making to enhance the quality of services and protect the rights of all parties
20. Demonstrate mastery of sound principles of behavior change in order to design and implement prevention and intervention programs to promote positive changes in children's learning and behavior
21. Demonstrate mastery in helping parents, caregivers, and schools develop goals for children, taking into account the need to adjust expectations for individual children

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 Standards of Accreditation for Health Service 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) Intervention Models (principles of applied behavior analysis and one counseling course) (6 credits); and (c) the

Psychology Core (statistics and research design, human development, history and systems, biological bases, individual differences, cognitive and affective bases, social bases, and diversity) (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

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 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.

Student Learning Outcomes

1. Demonstrate broad knowledge of the field of social psychology and a deep understanding of its basic principles - Examine the causes, consequences, and/or remediation of social challenges
2. Conduct reviews of the social psychology literature and integrate/synthesize that literature
3. Design and conduct systematic research of important challenges facing society
4. Utilize classic and contemporary quantitative methods to conduct statistical analysis for their research
5. Present research by means of poster presentations and/or talks at professional conferences
6. Follow ethical guidelines of the American Psychological Association
7. Demonstrate expertise as a psychology instructor

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:

College of Arts and Sciences

Conceptual Courses (18 credit hours)

Note: PSY 775 may be repeated if the topics change

- PSY 640 - Psychology of Gender 3 credit(s)
- PSY 674 - Advanced Social Psychology 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)

Department Core Requirements (15 credit hours)

- PSY 655 - Experimental Design and Statistical Methods I 3 credit(s)
- PSY 756 - Experimental Design and Statistical Methods II 3 credit(s)

Additional 9 credit hours psychology-related courses outside of social psychology (which may include other statistics courses). These courses should be selected in consultation with the advisor to optimize the student's training. Whether or not a particular course not taught by SU psychology faculty would be permitted to contribute to satisfying this requirement will be determined by petition review.

Methods Courses (15 credit hours)

Required Course:

- PSY 679 - Research Methods in Social Psychology 3 credit(s)

Additional Courses:

- PSY 691 - Meta-Analysis 3 credit(s)
- PSY 990 - Independent Study 1-6 credit(s) (up to 9 hours)

Other elective courses in methods and advanced statistical methods (e.g., Structural Equation Models or Multilevel Models).

Research (24 credits)

Thesis credits (6 credits)

Dissertation credits (24 credits)

Seminar (3-6 credits)

- PSY 627 - Proseminar Methods and Topics in Social Psychology 3 credit(s)

Electives (12-15 credits)

Finally, 12-15 additional hours are required for the minimum requirement of 90 hours for the Ph.D.

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.

Optional Concentration - Neuroscience Concentration (4 required courses)

1. BIO 607 Advanced Neuroscience (3 credits)
2. PSY 777/NEU 777 Cognitive and Applied Neuroscience (3 credits)
3. NEU 613/BIO 624/CSD753/PSY 778/BEN 613 Readings in Neuroscience (0 or 3 credits)
4. NEU 614/BIO 625/ CSD754/PSY779 BEN 614 Interdisciplinary Methods of Neuroscience (0 or 3 credits)

Students can take these courses as their electives.

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

Student Learning Outcomes

1. Demonstrate a basic knowledge of central concepts in Speech Pathology
2. Apply knowledge of analytical/methodological skills used to evaluate and conduct research
3. Demonstrate ability to formulate hypotheses based on current concepts in the field and design, conduct, and interpret their own research
4. Demonstrate skills in communicating scientific research results in a clear and effective manner
5. Demonstrate skills in obtaining research funding

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 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, Roy Welch

Chemistry: Mark Braiman, Rob Doyle, Bruce Hudson, Yan-Yeung Luk, Jon Zubieta

Forensic Science: Kevin Sweder

Physics: Mark Bowick, 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.

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

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).

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 Janice Dowell, Philosophy Department, 541 Hall of Languages (443-5826; jldowell@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).

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,

College of Arts and Sciences

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 (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.

Student Learning Outcomes

1. Recognize how arts and artists function in society and educate students about community engagement, multiculturalism, and demographic diversity
2. Demonstrate an understanding of basic business skills including: accounting, public relations, financial management, organizational theory, marketing, planning, and analysis
3. Relate issues of leadership in complex organizations to the arts
4. Establish a network of professional contacts and the opportunity for interaction with top leaders in the field
5. Develop the ability to express concepts and ideas in writing and oral presentations

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:

Jan Ondrich jondrich@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

Margarita Estevez-Abe, Co-Director, Center for European Studies

Office: 308 Maxwell Hall

Telephone: 315-443-3859

E-mail: mestev02@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, culture, and economics or to prepare themselves for a career involving specialization in this region. In completing the certificate program, students are required to take 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, language study, 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/

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.

Student Learning Outcomes

For information on student learning outcomes, please contact the department.

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 1-3 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)

College of Arts and Sciences

- 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).

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.

Student Learning Outcomes

1. Accurately define the field of forensic science and describe how it overlaps with their particular interests
2. Describe the relationship and interplay between forensic science and the legal system
3. Appreciate the importance of ethical standards and describe the means through which such standards are upheld in forensic science
4. Explain the importance and structure of quality assurance protocols and standards
5. Apply QA standards and protocols in the laboratory setting
6. Describe the duties of a firearm and tool mark examiner
7. Demonstrate competence in using comparison microscopy to evaluate and report on firearm and tool mark evidence

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
323 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 than English in various contexts.

College of Arts and Sciences

- 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.

Student Learning Outcomes

1. Use empirical evidence to describe the richness and intricacy of particular languages and of the universal principles that underlie the acquisition and knowledge of all languages
2. Describe the historical development of language teaching methodologies as well as the current mainstream method
3. Employ phonological, morphological, syntactic, semantic or pragmatic analyses in their preparation for language teaching
4. Construct and implement prepared lesson plans
5. Conduct secondary source research in an area related to language teaching

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/ Caribbean Studies, CAS

Gladys McCormick, Director

Program on Latin America and the Caribbean

510 Eggers Hall

315-443-9325

Certificate Requirements:

This certificate indicates successful completion of 12 credits of graduate study 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 certificate program.

In order to receive the certificate, students must complete 12-credit hours of coursework and earn a cumulative grade point average of at least 3.0 in these courses as well as successfully complete the degree program in their primary field.

The Program of Study must be completed and signed by your advisor and the director of PLACA.

Student Learning Outcomes

For information on student learning outcomes, please contact the department.

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 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.

Student Learning Outcomes

1. Accurately define the field of forensic science and describe how it overlaps with their particular interests
2. Describe the relationship and interplay between forensic science and the legal system
3. Appreciate the importance of ethical standards and describe the means through which such standards are upheld in forensic science
4. Demonstrate how crime scenes are processed, how chain of custody is preserved and documented, and how medicolegal death investigators and crime scene investigators work together
5. Explain the duties of a medicolegal death investigator

Requirements:

I. Required Courses - 6 Credits

- FSC 635 - Medicolegal Death Investigation I 3 credit(s)

- FSC 651 - Forensic Pathology 3 credit(s)

II. Electives - 6 Credits Required

- FSC 636 - Medicolegal Death Investigation II 3 credit(s)
- FSC 640 - Special Topics in Advanced Forensics 3 credit(s)
- FSC 653 - Forensic Toxicology 3 credit(s)
- FSC 657 - Principles of Human 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
- ANT 633 - Human Osteology 3 credit(s)

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, Timur Hammond, 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:

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 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.

Student Learning Outcomes

1. Analyze main social, political and religious properties, and modern history of the Middle East or the evolution of political thought and the ways in which social theories can be applied to the study of the region
2. Demonstrate fair knowledge of one of the four main languages in the region
3. Examine the Middle East region's cultural diversity
4. Use a variety of methodological and theoretical approaches from the humanities, social sciences, and/or related professions in the study of the Middle Eastern region

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),
- Bahçesehir University (Turkey), Bogacizi University (Istanbul, Turkey), An Najah University (Nablu, 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 Young Scholar 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 Asian Studies, CAS

Faculty

Carol Babiracki, Shobha K. Bhatia, Tej K. Bhatia, Himika Bhattacharya, Tula Goenka, Ann G. Gold, Tazim R. Kassam, Radha Kumar, Prema Kurien, Chandra Talpade Mohanty, Romita Ray Kapoor, Anoop Sadanandan, Farhana Sultana, Susan Thomas, Cecilia Van Hollen, Susan S. Wadley, Joanne P. Waghorne

Affiliated Faculty:

Ahmed Abdel Meguid, Mehrzad Boroujerdi, Richard Breyer, Thomas Brutsaert, Gareth Fisher, Rashmi Gangamma, Dimitar Gueorguiev, Roger Hallas, Devashish Mitra, S.P. Raj, Sudha Raj, Lars Rodseth, Kamala Ramadoss, Jaipaul Roonarine, Yuksel Sezgin, Corri Zoli

Student Learning Outcomes

1. To analyze aspects of the history and geography of South Asia
2. To contrast and critique various social, economic, and political dimensions of South Asia including but not limited to: gender, caste, class, education, ethnicity, national identity, and religion
3. To interpret the diverse functions and cultural meanings of religion, art, and music in South Asia
4. To analyze key processes of change and globalization within and between South Asian nations
5. To develop ideas and arguments about South Asia in writing

Certificate Requirements

The Certificate of Advanced Study (CAS) in South Asian Studies 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)
- SAS 622 - Gender & Sexuality in South Asia 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)

College of Arts and Sciences

- 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 622 - Gender & Sexuality in South Asia 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 1-3 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 and Gender Studies, CAS

Department of Women's and Gender Studies
340 Sims Hall
315-443-3560

Office Coordinator

Alice Loomis, 340 Sims Hall, 315-443-3707,
Fax 315-443-9221

Administrative Specialist

Susann DeMocker-Shedd, 340 Sims Hall 315-443-3560, Fax 315-443-9221

Graduate Studies Director

Gwendolyn Pough
340J Sims Hall
315-443-6745

Faculty

Himika Bhattacharya, Pedro DiPietro, Eunjung Kim, 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.

Student Learning Outcomes

1. Apply interdisciplinary multiracial, intersectional, and transnational feminist theories and methods to investigate how gender relations and practices are embedded in and shaped by diverse social, political, material, and cultural realities
2. Recognize, interpret, and analyze issues of

power, oppression, and injustice and social, economic, and epistemic violence

3. Identify histories and contemporary forms of feminist agency and resistance, social movements, and collective action

4. Integrate feminist theory and practice to challenge social relations, representations, knowledge, institutions, and policies

5. Engage and employ multiple modes of knowledge including conventional texts as well as creative work, activism, and popular culture

6. Model feminist competencies for collaborative learning and teamwork

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)

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 that can be taken as a stand-alone certificate or as part of a graduate degree program. 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, 340 Sims 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.

College of Arts and Sciences

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 Tournon, 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 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

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.

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

College of Arts and Sciences

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 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

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 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

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.

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 631 - Population Genetics

College of Arts and Sciences

3 credit(s) Odd academic yr e.g. 2007-8

Double Numbered with: BIO 431

Models of population growth, Hardy-Weinburg equilibrium, X-linkage and two loci, subdivision, inbreeding and finite populations, quantitative characters, selection, migration, mutation, the fundamental theorem, stochastic processes, and requisite mathematics. Computer programming is part of the laboratory requirement. Additional work required of graduate students.

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

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 650 - Seminar in Evolutionary Genetics

College of Arts and Sciences

3 credit(s) Even Academic Yr e.g. 2004-5

Double Numbered with: BIO 450

Topics relating to the fundamental principles underlying the evolution and genetics of complex traits. Current and/or classic examples from the primary research literature will be chosen for discussions. 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 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

College of Arts and Sciences

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

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

College of Arts and Sciences

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.

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 533 - The Science and Artisanry of Glass

College of Arts and Sciences

1 credit(s) Every semester
Primarily for students in the science field. Covers history of scientific glass, different composition, safety and uses. Students will learn how to form glass in a flame. Additional work required of graduate students.

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

College of Arts and Sciences

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.

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

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 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..

College of Arts and Sciences

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 624 - Clinical Techniques - Language Disabilities of Early Childhood

College of Arts and Sciences

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

Application of techniques used in the assessment and treatment of young children with language disabilities. Practice of computerized analysis of language samples, standardized and informal assessment, and interventions for young children and their families.

PREREQ: CSD 650

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 - Speech and Language Disorders in Children

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, incidence, etiology of childhood speech sound disorders and language impairment. Differences versus

disorders. Principles of assessment and diagnostic. Elements of therapy, 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 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

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

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.

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 I

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 and special auditory tests.

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 - Auditory Evoked Potentials

College of Arts and Sciences

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

Foundational knowledge for objective physiological measurement of the auditory system using auditory evoked potentials. Emphasis on understanding principles underlying the recording, analyzing and interpreting electrophysiological responses from the peripheral and central auditory system. PREREQ: CSD 661
COREQ: CSD 658

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

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 671 - Advanced Clinical Audiology II

College of Arts and Sciences

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

Concepts and practice in screening and diagnostic audiology, including clinical decision analysis, otoacoustic emissions, wideband acoustic immittance, and clinical applications of auditory evoked potentials.

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 726 - Neurogenic Communication Disorders I

College of Arts and Sciences

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

Neuroanatomy, neurophysiology of motor and language systems. Characteristics and differential diagnosis of aphasia, apraxia, and dysarthria. Strategies to assess language and cognition in adults with acquired neurological disorders. PREREQ: CSD 315 OR 615

CSD 727 - Neurogenic Communication Disorders II

College of Arts and Sciences

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

Assessment of motor speech disorders and treatment of neurogenic communication disorders including aphasia, apraxia, and dysarthria. Application of basic principles of motor learning in treatment of motor speech disorders. PREREQ: CSD 726

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

College of Arts and Sciences

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 732 - Clinical Techniques - Language Disabilities of School Age Children

College of Arts and Sciences

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

Application of techniques used in the assessment and treatment of school age children with language disabilities. Computerized analysis of language samples, standardized and informal assessment, and interventions for oral and written language.

PREREQ: CSD 650

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.

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

College of Arts and Sciences

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) Odd academic yr e.g. 2007-8
Crosslisted with: ANT 639
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. Additional work required of graduate students.

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.

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 612 - Water-Energy Seminar

College of Arts and Sciences
1 credit(s) Every semester
A forum for learning about and discussing research at the water-energy interface, to network with visiting professionals, and know others working in related fields. Participants review and discuss papers and host visiting lecturers.
Repeatable 3 time(s), 4 credits maximum

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 - Paleocology

College of Arts and Sciences
3 credit(s) Upon sufficient interest
Principles and applications of paleocology, 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 paleocology, extinctions and radiations, stratigraphic paleontology, etc. Additional work required of graduate students.
PREREQ: EAR 325
Repeatable 2 time(s), 9 credits maximum

College of Arts and Sciences

EAR 630 - Topics in Thermochronology & Tectonics

College of Arts and Sciences
2 credit(s) Upon sufficient interest
Double Numbered with: EAR 430
Seminar will focus on research topics in thermochronology 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 - Thermochronology

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 thermochronology 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 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, ^{14}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 510 - Special Topics in Economics

College of Arts and Sciences

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.

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

College of Arts and Sciences

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.

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

College of Arts and Sciences

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 OR FSC 651

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 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 645 - Forensic Biochemical Analysis

College of Arts and Sciences

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

Lecture and laboratory course in forensic biochemistry. Concepts and theory behind bioanalytical techniques, along with direct experience in many of the commonly used forensic biochemical analysis techniques. Students must have undergraduate level general chemistry experience.

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

College of Arts and Sciences

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 664 - Latent Print Processing

College of Arts and Sciences
3 credit(s) At least 1x fall or spring
Double Numbered with: FSC 464
Provides practical knowledge of how to search for, develop, document, and preserve latent prints in a mock crime scene and laboratory setting. Utilizes visual, physical, and chemical methods. 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
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/armorer's 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 674 - Forensic DNA Analysis

College of Arts and Sciences
3 credit(s) At least 1x fall or spring
Double Numbered with: FSC 474
Explores the present-day state of forensic DNA analysis with a focus on the workflow, instrumentation and methods for data interpretation. Includes a computer laboratory component. Additional work required of graduate students.

FSC 675 - Latent Prints II

College of Arts & Sciences
3 credit(s) At least 1x fall or spring
Double Numbered with: FSC 475
Advanced level coverage of latent print: advanced analysis, comparison, identification; distortion, understanding causes of error; understanding forms of bias; courtroom preparation and testimony; topics research and presentation. Additional work required of graduate students.
PREREQ: FSC 665

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

FSC 990 - Independent Study

College of Arts and Sciences
1-6 credit(s)
Repeatable

Geography

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

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)
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 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 521 - Michelangelo

College of Arts and Sciences

College of Arts and Sciences

3 credit(s) At least 1x fall or spring
Seminar explores various aspects of Michelangelo Buonarroti's long and vibrant career by focusing on his techniques, patrons, innovative style, unparalleled influence and fame, and primary sources that document them. Additional work required of graduate students.

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 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

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

College of Arts and Sciences

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

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

College of Arts and Sciences

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 615 - History of Recorded Sound

College of Arts and Sciences

3 credit(s) Irregularly

Double Numbered with: HOM 415

The history of sound recording technology from its origins to the present day. Additional work required of graduate students.

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 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.

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 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

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

College of Arts and Sciences

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 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.

LAS 623 - Effects of Globalization in Latin America

College of Arts and Sciences
3 credit(s) Odd academic yr e.g. 2007-8
Crosslisted with: ANT 623
Double Numbered with: LAS 423
A grassroots view of major transformations in Latin America due to globalization/global change, including adaptations to global warming, effects of and reactions to neo-liberal policies, internal and international migration, ethnic movements and social revolutions.

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
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

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 503 - Matrix Methods for Data Science

College of Arts and Sciences

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

Matrix methods required for data analysis with an emphasis on applications and using software. Matrix norms, orthogonality, eigendecomposition, SVD, LS, QRD, LDA, PCA. Not for math majors or minors. Additional work required of graduate students.

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

College of Arts and Sciences

Orthogonal functions, Fourier series, Fourier transforms-continuous and discrete, Haar wavelets and multiresolution analysis, applications to signal processing. Additional work required of graduate students.
PREREQ: MAT 331 OR MAT 485 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 523 - Statistical Methods for Data Science

College of Arts and Sciences
3 credit(s) At least 1x fall or spring
Statistical methods (such as hypothesis testing, parameter estimation, regression, ANOVA, sampling, experimental design) required for data science. Emphasis on applications and using software. Additional work required for graduate students.

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

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

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,

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 695 - Fundamentals of Data Science

College of Arts and Sciences

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

Double Numbered with: MAT 495

Fundamental methods for data science, such as regression, linear discriminant analysis, k-nearest neighbors, support vector machine, k-means, principal component analysis, and nonlinear dimension reduction. Performance evaluation and model selection. Additional work required of graduate students.

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

College of Arts and Sciences

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
Working with real data taken from case studies, published papers, and current projects in the statistical laboratory.
PREREQ: (MAT 525 OR MAT 652) AND (MAT 654 OR APM 630 OR MAS 766)
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 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

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 - Numerical Optimization I

College of Arts and Sciences
3 credit(s) Irregularly
Newton methods, interior point methods, proximal point algorithms, alternating direction method of multipliers, coordinate descent method, and stochastic/randomized algorithms.
PREREQ: (MAT 682 AND MAT 683) OR GRADUATE STANDING IN MATHEMATICAL SCIENCES

MAT 782 - Numerical Optimization 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

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

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: MPH 664, 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
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,

College of Arts and Sciences

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

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)

College of Arts and Sciences

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.

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, Boltzmann's integrodifferential equation, Gibbs' 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

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

College of Arts and Sciences

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

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
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 627 - Proseminar Methods and Topics in Social Psychology

College of Arts and Sciences
3 credit(s) At least 1x fall or spring
Discussion of methods, theories, and findings for student-selected and faculty-selected topics in social psychology.
Repeatable 1 time(s), 6 credits maximum

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

College of Arts and Sciences

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.

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 - Advanced Introduction to Cognitive

College of Arts and Sciences

Psychology

College of Arts and Sciences

3 credit(s) Odd academic yr e.g. 2007-8

A broad and general introduction to the empirical and theoretical foundations of cognitive psychology. The course will explore the ways in which cognition and affect come together to drive behavior.

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 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

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 - Bayesian Statistical Analysis

College of Arts and Sciences

3 credit(s) Even Academic Yr e.g. 2004-5

An introduction to Bayesian data analysis, with an emphasis on designs typically encountered in

the behavioral and social sciences.

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

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

College of Arts and Sciences

PSY 899 - Projects in Psychology

College of Arts and Sciences
3-6 credit(s) At least 1x fall or spring
Permission of Instructor.
Repeatable

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

QSX 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. 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: MPH 664, 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

College of Arts and Sciences

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 Muslims 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

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

College of Arts and Sciences

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.

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 685 - Buddhism, Culture, Modernity

College of Arts and Sciences

3 credit(s) Every semester

Explores the diversity of adaptations by Buddhist adherents to the global condition of modernity and the ways in which modernity has created what we think of as Buddhism today.

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 698 - Anthropology of Religion

College of Arts and Sciences

3 credit(s) Every semester

Surveys contributions to theories by anthropologists on the role of religion in societies from the founding of the discipline to the present day.

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

College of Arts and Sciences

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

Sociology

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

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.

College of Arts and Sciences

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.

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

College of Arts and Sciences

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 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

Working with real data taken from case studies, published papers, and current projects in the statistical laboratory.

PREREQ: (MAT 525 OR MAT 652) AND (MAT 654 OR APM 630 OR MAS 766)

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

College of Arts and Sciences

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 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.

College of Arts and Sciences

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 crafts 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. 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 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

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

School of Education

Dr. Joanna Masingila, Dean
230 Huntington Hall
soe.syr.edu

About the School

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.

The School of Education aspires to increased distinction for its innovative pedagogies, inclusive practices, and synergistic partnerships. The SOE seeks to deepen the significance of its work in learning and human development, research and scholarship, equity, and professional leadership for education and human performance contexts.

The mission of the Syracuse University School of Education is to prepare thoughtful and socially just leaders who bridge scholarship and practice. Through collaborative partnerships and multifaceted inclusive approaches, we enhance student learning and success, physical activity and health, and mental health and wellbeing across communities. We enact our mission through the following nine core commitments.

- To graduate highly skilled and knowledgeable practitioners, teachers, administrators, counselors, scholars, and other professionals who are leaders in their respective fields and are committed to inclusion in policy and practice
- To operate from a social justice philosophy that includes advocating for the rights of historically marginalized populations and for educational, health, and broader forms of equity
- To pursue rigorous scholarship, including evolving forms of intellectual and creative work that has an impact in local and global contexts
- To promote wellness across communities including multiple dimensions of physical health and activity, and socio-emotional wellbeing
- To prepare leaders in multiple fields including through intensive field experiences informed by theory, scholarly evidence, exemplary practices, and reciprocal university-community relations
- To stimulate student success through transformative pedagogy, student-centered learning, and effective integration of technology-based and other resources
- To recognize that diversity and academic excellence are inseparable. Diversity is embraced in its varied dimensions including but not limited to a diverse community of faculty, students, and staff; multiculturalism; and work in diverse schools and social environments.
- To foster interdisciplinary scholarship and

collaborative partnerships, and to promote a climate in the School of Education and the broader university community characterized by mutual respect and democratic and sustainable practices

- To nurture a vibrant, close-knit community of scholars and students who enrich as well as draw from the breadth of resources and opportunities of a research university.

Accreditation

The Syracuse University Unit for Preparing School Professionals (Unit) is accredited by the National Council for Accreditation of Teacher Education (NCATE), which is now part of the Council for the Accreditation of Educator Preparation. The Syracuse University 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 visit in spring 2018.

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.), Master of Art (M.A.), or Master of Music (M.Mus.) is the first degree beyond the bachelor's degree. Each master's 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 beyond the master's degree, or an opportunity for specialized study that is less than a master's degree.

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 a variety of 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's 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.

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

School of Education

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 School Counseling, Educational Leadership and School District Business Leadership 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, the School's Departments of Cultural Foundations of Education (CFE), Instructional Design, Development and Evaluation Department (IDD&E) and Teaching and Leadership (T&L) 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.

IDD&E offers three Certificate of Advanced Study programs in Designing Digital Instruction (15 credits), Educational Technology (15 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.

T&L offers a 15 credit C.A.S. in Media & Education as a joint venture with the Newhouse School. 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.

ir 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 a limit of 6-9 credits of 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.

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.

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.

Graduate Advising

The Office of Academic and Student Services provides advice and guidance on School of Education and Syracuse University policies, advocates for student concerns, and offers a range of services to assist students as they work toward their academic and career goals.

The mission of Academic and Student Services is to help students succeed by providing information, fostering personal development and responsibility, and offering supportive services. Students have an open invitation to stop by with questions or concerns regarding academic programs, advising, career issues, and certification. If an answer is not provided here, our staff is dedicated to helping students find what they need.

Services available to graduate students through the Office of Academic and Student Services include the following:

- Advising (faculty and staff)
- Admissions
- Academic and Personal Support
- Career Services
- Teacher Certification

Students will be assigned faculty advisors in addition to professional advisors in the Office of Academic and Student Services.

Career Services

- Teacher Certification

Students will be assigned faculty advisors in addition to professional advisors in the Office of Academic and Student Services.

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

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

School of Education

Syracuse, NY 13244
Phone (315) 443-9319
Fax (315) 443-5732

Career Services and Certification 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 and cover letter assistance, on-campus employer info sessions and fairs, and New York State Teacher Certification recommendation. All of our teacher-prep programs are integrated with New York State Teacher Certification requirements. For more information, visit: http://soe.syr.edu/current/student_services/career_services.aspx

Explore career opportunity websites.

Study Abroad

The School of Education supports and encourages study abroad for graduate students enrolled in any of our programs. The faculty and program advisors work very closely with students on appropriate course sequencing to facilitate this.

School of Education students have the opportunity to study abroad for a summer or semester through the nine SU Abroad centers, as well as multiple short-term programs with School of Education faculty. For more information, visit: http://soe.syr.edu/current/study_abroad/default.aspx

Community, Collaboration and 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, 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.
- Comstock Art Facility, 1055 Comstock Ave is the main building for Art Education.

- Crouse College houses an auditorium, and faculty, classrooms and practice space for Music Education.
- Carnegie is home to Math Education.
- Sims houses the Counseling and Human Services Department, and the Psycho-educational evaluation teaching laboratory.
- 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 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
- 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 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.

Student Learning Outcomes

1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.
2. Know the content they are responsible for teaching, and plan instruction that ensures growth and creative achievement for all students.
3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.
4. Work with all students to create a dynamic learning environment that supports creative achievement and growth.
5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.
6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning
7. Set informed goals and strive for continuous professional and creative growth

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.

Student Learning Outcomes 1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.

2. Know the content they are responsible for teaching, and plan instruction that ensures growth and creative achievement for all students.

3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.

4. Work with all students to create a dynamic learning environment that supports creative achievement and growth.

5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.

6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning

7. Set informed goals and strive for continuous professional and creative growth

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

Contact:

Caroline O'Hara, Ph.D., Coordinator of Clinical Mental Health Counseling, Sims Hall Suite 440 315-443-2266

Core Faculty

Dr. James Bellini, Professor & Department Chairperson

Dr. Melissa Luke, Professor

Dr. Derek Seward, Associate Professor

Dr. Caroline O'Hara, Assistant Professor

Student Learning Outcomes

1. Synthesize an understanding of historical and contextual dimensions of professional orientation, assessment, research, career, theory, and lifespan development

2. Explain an understanding of group dynamics and construct clinical interventions that foster development

3. Apply ethical, empirically grounded, and culturally relevant strategies and models in counseling practice

4. Develop advocacy and leadership principles and practically apply them in the context of professional clinical mental health counseling

School of Education

5. Apply social and cultural diversity theories, models, and multicultural competencies in counseling practice and research

6. Construct and implement a comprehensive clinical needs assessment that investigates the needs of diverse clients and provides a pathway to develop systemic methods of clinical intervention

7. Demonstrate application of knowledge of biopsychosocial assessment, treatment planning, cultural genogram, and documentation. Complete a comprehensive assessment, treatment plan, and case note based on knowledge of and interaction with the client.

Program Description

Master of Science in Clinical Mental Health Counseling prepares professional counselors to offer a broad range clinical mental health counseling services and interventions focused on wellness and advocacy. These therapeutic services are designed to enhance the growth and development of all clients and can be delivered in a variety of settings such as community agencies, private practice, residential treatment, community hospitals, Veterans Affairs Clinics, and human service organizations.

Students develop skills in clinical mental health counseling, multicultural/social justice counseling, career counseling, substance abuse services 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. Our 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. 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 practices and research 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. We provide constructivist and experiential learning environments in our classes and are committed to reflexive leadership. We seek 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 2017:

The Department of Counseling and Human Services is focused on program quality which is exemplified through our commitment to accreditation by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). CACREP accreditation provides recognition of the quality and scope of training as well as assures students that the program is stable and committed to meeting professional benchmarks of quality. Our three master's programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling) and our Counselor Education Ph.D. program are currently accredited by CACREP. We are pursuing re-accreditation, and as is expected of accredited programs, we are currently completing the self-study process in preparation for an accreditation site visit. CACREP accreditation is critical as you compare programs in that counselors must be graduates of a CACREP program as of 2022 to be credentialed as a National Certified Counselor. Accreditation also streamlines licensure and credentialing processes for professional counselors.

Admission

In our admission process, we consider multiple facets of an applicant's portfolio and background because we believe that successful counselors need to be interpersonally skilled, highly self-aware, professionally mature, academically prepared for graduate work, and committed to the values and philosophies of the counseling profession and the Department of Counseling and Human Services at Syracuse University. Therefore, academic, interpersonal, professional, leadership, and personal components are integrated in our admission decision process.

The Department of Counseling and Human Services faculty seeks to admit individuals who are personally and academically prepared to be successful in completing the master's degree program in Counseling. Within these parameters, the faculty is committed to admitting students who represent diverse backgrounds or who have special abilities to serve a diverse population. Admission is highly competitive and conducted three times a year.

Major Requirements

- The 60 credit Master of Science degree prepares graduates to successfully pursue licensure in the state of New York and other states and credentialing as a Nationally Certified Counselor. For full-time students, the program is designed to be completed in 2.3 years.
- COU 612 - Professional Orientation & Ethical Practice 3 credit(s)
- COU 614 - Group Work in Counseling 3 credit(s)
- COU 624 - Theories of Counseling 3 credit(s)
- COU 626 - Social and Cultural Dimensions of Counseling 3 credit(s)

- COU 628 - Life-Span Human Development 3 credit(s)
- COU 642 - Career Development 3 credit(s)
- COU 644 - Counseling Prepracticum 3 credit(s)
- COU 645 - Counseling Prepracticum II: Advanced Multicultural Counseling Skills 3 credit(s)
- COU 646 - Assessment in Counseling 3 credit(s)
- COU 651 - Crisis Counseling 3 credit(s)
- COU 675 - Substance Abuse Counseling 3 credit(s)
- COU 723 - Psychological, Social, and Cultural Aspects of Disability 3 credit(s)
- COU 727 - Foundations of Mental Health Counseling 3 credit(s)
- COU 600 - Selected Topics in Counseling 1-6 credit(s)
- MFT 625 - Family Systems and Therapy 3 credit(s)
- COU 750 - Practicum in Counseling 3 credit(s)
- COU 758 - Research Methods 3 credit(s)

COU 790 - Internship in Counseling 3-6 credit(s)

Students can complete the Clinical Mental Health Counseling program on a part-time basis. Consultation with the advisor about which courses to take which semester is especially needed for part-time study.

Students can complete the Clinical Mental Health Counseling program on a part-time basis. Consultation with the advisor about which courses to take which semester is especially needed for part-time study.

Transfer Credit

The Graduate School at Syracuse University allows students to transfer in up to 30% of the credits required for a master's degree from other academic institutions. Only courses taken within the last seven years in which grades of "B" or better were earned can be transferred. Once matriculated, decisions about transfer of specific courses, as well as decisions about whether any course may be used to waive a required course, are made by the student's advisor in consultation with appropriate faculty. Some courses (for example, **Practicum**) taken elsewhere may not be used to substitute for the same course at SU.

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

School of Education

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.

Student Learning Outcomes

1. Describe historical, philosophical, and/or sociological foundations of educational practice and policy.
2. Analyze the way in which schools reproduce or reduce inequality in schooling and schools.
3. Analyze and critique research that explores the taken-for-granted assumptions and values underlying education
4. Analyze qualitative research studies, apply qualitative methods to a research project and have familiarity with a number of paradigms within qualitative studies.

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. The program consists of either 30 credits and a Master's Intensive Exam or 24 credits and a Master's Thesis (6 credits). In either option there is one required course: EDU 603: Introduction to Qualitative Research.

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, glesner@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 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.

- This program 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.

- The requirements of this program include several undergraduate liberal arts concentration and/or distribution courses. 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 but must be completed before a degree can be granted.
- A liberal arts major or concentration of at least 30 credits, of which at least 15 credits represent upper division courses. The program does work with students who have non-liberal arts majors to construct a complete an appropriate liberal arts concentration.
- A college writing course completed with a grade of B- or higher or an equivalent.
- Two appropriate college-level mathematics courses, with grades averaging at least B- and neither grade below C.
- 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.

Student Learning Outcomes

1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.
2. Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.
3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.
4. Work with all students to create a dynamic learning environment that supports achievement and growth.
5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.
6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning

School of Education

7. Set informed goals and strive for continuous professional growth

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 Session

- 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)

EDU 606 - Understanding Learning and Teaching 4 credit(s)

(Includes field experience)

(if necessary, requirement can be satisfied with online coursework from other institutions - typically for a total of 6 credits)

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
- 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

- 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)

6 credits 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. 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. May be taken in an earlier term.

MFT 625 - Family Systems and Therapy 3 credit(s)

Second Summer Session

- EDU 508 - Student Teaching 2-15 credit(s) ECSE (offered at the Jowonio School) 6 credits required

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) Kindergarten and Gradws 1-2) 5 credits required.
- 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

While the ECSE program accepts and seeks to accommodate graduate students who are working, it is essential that working schedules allow day-time hours when required practica and field placements can be satisfied in the fall, spring and summer terms. Otherwise, it is not possible to complete the ECSE degree. We strongly recommend against full-time work and full-time study in the same semester/term.

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.

Student Learning Outcomes

- Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.

Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.

- Implement instruction that engages and challenges all students to meet or exceed the learning standards
- Work with all students to create a dynamic learning environment that supports achievement and growth
- Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction
- Demonstrate professional responsibility and engage relevant stakeholders to maximize
- Set informed goals and strive for continuous professional growth 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

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) / Candidacy (3 credits)*

RED 614 - Teaching 21st Century Writers In and Out of School 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.

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 American Sign Language (completion of high school Foreign Language Level 3 or higher may be substituted.)

Educational Leadership, MS

(For International Applicants Only)

Contact:

Joseph Shedd, 150 Huntington Hall, 315-443-2685, jshedd@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.

Student Learning Outcomes

1. ELCC Standard 1.0: An education leader applies knowledge that promotes the success of every student by collaboratively facilitating the development, articulation, implementation, and stewardship of a shared school vision of learning through the collection and use of data to identify school goals, assess organizational effectiveness, and implement school plans to achieve school goals; promotion of continual and sustainable school improvement; and evaluation of school progress and revision of school plans supported by school-based stakeholders.

2. ELCC Standard 2.0: An education leader applies knowledge that promotes the success of every student by sustaining a school culture and instructional program conducive to student learning through collaboration, trust, and a personalized learning environment with high expectations for students; creating and evaluating a comprehensive, rigorous and coherent curricular and instructional school program; developing and supervising the instructional and leadership capacity of school staff; and promoting the most effective and appropriate technologies to support teaching and learning within a school environment.

3. ELCC Standard 3.0: An education leader applies knowledge that promotes the success of every student by ensuring the management of the school organization, operation, and resources through monitoring and evaluating the school management and operational systems; efficiently using human, fiscal, and technological resources in a school environment; promoting and protecting the welfare and safety of school students and staff; developing school capacity for distributed leadership; and ensuring that teacher and organizational time is focused to support high-quality instruction and student learning.

4. ELCC Standard 4.0: An education leader applies knowledge that promotes the success of every student by collaborating with faculty and community members, responding to diverse

community interests and needs, and mobilizing community resources on behalf of the school by collecting and analyzing information pertinent to improvement of the school's educational environment; promoting an understanding, appreciation, and use of the diverse cultural, social, and intellectual resources within the school community; building and sustaining positive school relationships with families and caregivers; and cultivating productive school relationships with community partners.

5. ELCC Standard 5.0: An education leader applies knowledge that promotes the success of every student by acting with integrity, fairness, and in an ethical manner to ensure a school system of accountability for every student's academic and social success by modeling school principles of self-awareness, reflective practice, transparency, and ethical behavior as related to their roles within the school; safeguarding the values of democracy, equity, and diversity within the school; evaluating the potential moral and legal consequences of decision making in the school; and promoting social justice within the school to ensure that individual student needs inform all aspects of schooling.

6. ELCC Standard 6.0: An education leader applies knowledge that promotes the success of every student by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context through advocating for school students, families, and caregivers; acting to influence local, district, state, and national decisions affecting student learning in a school environment; and anticipating and assessing emerging trends and initiatives in order to adapt school-based leadership strategies.

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.

Exercise Science, MS

Contact:

Tom Brutsaert, Chair, 201 Women's Building, 315-443-9696, tbrutsa@syr.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.

Student Learning Outcomes

1. Explain how metabolic, muscle, cardiovascular, and pulmonary systems underlie human physical performance.
2. Interpret and critique research findings in the exercise sciences
3. Apply basic research design to the study of exercise science.
4. Apply quantitative skills to analyze research data (their own collected data or secondary data analysis).
5. Present research findings (their own or the findings of others) in a professional and informative manner.
6. Write a research report/manuscript following established conventions in the field.
7. Achieve proficiency in 1 advanced areas of focus within exercise science.
8. Achieve proficiency in 1 area of faculty research expertise

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 Postsecondary Education, MS

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.

Student Learning Outcomes

1. Identify, synthesize, and analyze the historical, philosophical, and legal foundations of higher education and student affairs
2. Understand and apply ethical standards and principles of practice sanctioned by professional associations in student affairs (e.g. ACPA, NASPA)
3. Identify and apply appropriate developmental theories and helping skills that support student learning and advising
4. Understand and analyze the characteristics and K-12 experiences that influence student access to college and the effects of campus programs, policies, and practices on student success
5. Understand and apply leadership, organizational, and administrative theories and practices that assist institutions in accomplishing their mission
6. Understand systems of inequity in higher education and the experiences of under-represented groups, and how to develop policies and practices that advocate and support diverse students
7. Understand basic principles of educational research designs, methods and procedures for analysis, and how to review and evaluate research

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, 330 Huntington Hall, 315-443-3330, ceashby@syr.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

School of Education

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 and planning, based on the perspectives of these individuals themselves.

This 30-43 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.

Student Learning Outcomes

1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students
2. Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students
3. Implement instruction that engages and challenges all students to meet or exceed the learning standards
4. Work with all students to create a dynamic learning environment that supports achievement and growth
5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction
6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning
7. Set informed goals and strive for continuous professional growth

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) 4 credits required
- DSP 614 - Critical Issues in Dis/Ability and Inclusion 3 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.

- 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 required
- EDU 508 - Student Teaching 2-15 credit(s) (fall) 3 credit(s) required
- 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) 3 credit(s) required

- 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: 30-43 depending on background

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, 150 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). Applicants must hold or be expected to have met requirements for the New York State initial childhood 1-6 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..

Student Learning Outcome 1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.

2. Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.

3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.

4. Work with all students to create a dynamic learning environment that supports achievement

School of Education

and growth.

5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.

6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning

7. Set informed goals and strive for continuous professional growth

- 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)
- 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 1 credit required

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)

- 3 credit(s) required

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 1-6 4 credit(s) required

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 met requirements for one of the New York State(NYS) Initial Certificates 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.

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 professional certificate(s) for their previously earned Students with Disabilities certificate and any other teaching certificates. 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.

Student Learning Outcome 1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.

2. Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.

3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.

4. Work with all students to create a dynamic learning environment that supports achievement and growth.

5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.

6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning

7. Set informed goals and strive for continuous professional growth

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 665 - Positive Behavior Supports in Secondary Schools 3 credit(s)
- SPE 705 - Practicum in Psychoeducational Evaluation and Planning for Exceptional Children 3-6 credit(s) 3 credit(s) required

SPE 690 - Independent Study 1-6 credit(s) (Final Capstone Program Project) 3 credits required

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 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)
- SPE 609 - Teaching Children and Adolescents with Autism 3 credit(s)
- SPE 633 - The High-Risk Infant: Medical Treatment and Educational Interventions 3 credit(s)

RED 621 - Literacy Intervention for Special Educators, Grades K-12 3 credit(s)

Total Credits Required: 31

Safe and Healthy Learning Environments Requirement

To be eligible for this New York State teacher certification, students in this program must complete or must have completed training

School of Education

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 (DASA). One or more of these requirements, if needed, can be completed through a non-credit courses, Safe and Healthy Learning Environments. Students who have only the DASA requirement to meet will have opportunity to complete this requirement separately.

Instructional Design, Development and Evaluation, MS

Contact:

Jing Lei, Chair, 265 Huntington Hall, 315-443-1362, jlei@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.

Student Learning Outcomes

1. Describe foundational areas of instructional analysis, design, development, implementation, evaluation.
2. Demonstrate foundational skills in instructional design practices
3. Develop practices in self-reflection and professional development
4. Select, use, and evaluate appropriate technologies to enhance-instructional practices and learning

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, 259 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.

Student Learning Outcomes

1. Describe foundational areas of instructional analysis, design, development, implementation, evaluation
2. Demonstrate foundational skills in instructional design practices
3. Develop practices in self-reflection and professional development
4. Select, use, and evaluate appropriate technologies to enhance K-12 teaching

productivity, & learning

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)
- 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 Literacy 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. Graduates meet the academic requirements for New York State Literacy Birth - grade 6 and Literacy grades 5-12 teaching certificates.

The program can be pursued full time over a year, in a fall-spring-summer sequence, or part time over several years. It is open only to those who hold or will qualify before beginning the program for a New York State initial teaching certificate in another certificate title.

Student Learning Outcome 1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.

2. Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.

3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.

4. Work with all students to create a dynamic learning environment that supports achievement and growth.

5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.

6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning

7. Set informed goals and strive for continuous professional growth

Program Requirements

Total Credits Required: 30

Required Courses

- RED 512 - Children's and Adolescent Literature 3 credit(s)
- RED 613 - Teaching Comprehension 3 credit(s)
- RED 614 - Teaching 21st Century Writers In and Out of School 3 credit(s)
- RED 615 - Teaching Academic Writing in K-12 Classrooms 3 credit(s)
- RED 616 - Academic Language and Reading 3 credit(s)
- RED 626 - Early Intervention for Children's Reading Problems 3 credit(s)
- ELL 645 - Issues in Educating English Language Learners 3 credit(s)
- RED 629 - Data-Driven Early Literacy Intervention and Coaching 3 credit(s)
- RED 747 - Literacy Clinic 6 credit(s)

Students will complete a professional portfolio requiring the integration of research and practice at two different points in the program--one following the completion of four courses (RED 613, Teaching Comprehension; RED 614, Teaching Twenty First Century Writers In and Out of School; RED 616, Teaching Academic Language and Reading; RED 626, Early Intervention for Children's Reading Problems), and the other following the completion of the capstone course, RED 747, Literacy Clinic.

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
- 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

Duane Graysay, 103C Carnegie Library, 315-443-1485, dtgraysa@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) 4 credits required*

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 required)*

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 required)*

SED 616 - Assessment & Data-Driven Instruction 3 credit(s)

Second Summer

Mathematics course (3 credits) Mathematics education course (3 credits)

School of Education

Intensive Examination

A written master's degree intensive examination is also required.

Liberal Arts Course requirements

The requirements of this program include several undergraduate mathematics 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

Michael Schoonmaker, Co-director, M&E; Chair, TRF, msschoon@syr.edu, 315-443-2150

Jeffrey Mangram Co-director, M&E; Program Coordinator, Social Studies Education, jamangra@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.

Student Learning Outcomes in Media and Education

In addition to the learning outcomes listed in the Newhouse School mission statement, students in the Magazine, Newspaper and Online Journalism Master's program are expected to achieve the following educational goals:

1. Explain foundational history, theories and research around the convergence of media and education
2. Explain and critically assess the legal, cultural, institutional and ethical dimensions of education and media
3. Propose and produce an independent media production project that will address an educational issue
4. Explain and use conventional and emerging visual media and demonstrate skill in storytelling
5. Play a role as a change agent using creative screenwriting and project development solutions for educational environments

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 to 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.

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):

- CFE 662 - Youth, Schooling and Popular Culture 3 credit(s)
- TRF 655 - Screenwriting and Production Workshop 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.
- EDU 603 - Introduction to Qualitative Research 3 credit(s)

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

School of Education

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)

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):

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 553 - Women and Social Change 3 credit(s)
- 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)

Education Elective - (3 credits) One course from:

- 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)
- EDU 610 - The American School 3 credit(s)
- EDU 778 - Narrative Inquiry in Research and Creative Practice 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)

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:

Speranza Migliore, Graduate Admissions Recruiter, School of Education, 111 Waverly Avenue, Suite 230, 315-443-2505, e-gradrcrt@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 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 preparation program is designed for students who have earned a bachelor's degree in music (i.e., with a major field in music) from a program accredited by the National Association of Schools of Music (NASM), and seek certification to teach music at all grade levels. 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 minimum 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

School of Education

continued study with accomplished musicians from diverse fields of music.

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice
2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures
3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program
4. Evaluate best teaching practices when observing teacher-student interactions within a music class/rehearsal with a diverse population of students
5. Demonstrate knowledge of best teaching practices when designing and implementing learning segments with three lesson plans that purposefully address student learning assessments within diverse populations of students
6. Demonstrate professional teaching readiness when engaging in a full-time student-teaching experience at both elementary and secondary levels

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)
- SED 616 - Assessment & Data-Driven Instruction 3 credit(s)
- SPE 612 - Adapting Instruction for Diverse Student Needs 3 credit(s)
- Student Teaching Seminar

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:

Speranza Migliore, Graduate Admissions Recruiter, School of Education, 111 Waverly Avenue, Suite 230, 315-443-2505, e-gradrcrt@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).

Student Learning Outcome 1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.

2. Know the content they are responsible for

teaching, and plan instruction that ensures growth and achievement for all students.

3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.

4. Work with all students to create a dynamic learning environment that supports achievement and growth.

5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.

6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning

7. Set informed goals and strive for continuous professional growth

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
 - 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, lecture recital, 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:

Speranza Migliore, Graduate Admissions Recruiter, School of Education, 111 Waverly Avenue, Suite 230, 315-443-2505, e-gradrcrt@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 Science 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).

Student Learning Outcomes

1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.
2. Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.
3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.
4. Work with all students to create a dynamic learning environment that supports achievement and growth.
5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.
6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning
7. Set informed goals and strive for continuous professional growth

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, lecture recital, 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., Sims Hall, Suite 440, 315-443-2266, mmluke@syr.edu

Core Faculty

Dr. James Bellini, Professor & Department Chairperson

Dr. Melissa Luke, Professor

Dr. Derek Seward, Associate Professor

Dr. Caroline O'Hara, Assistant Professor

Student Learning Outcomes

1. Synthesize an understanding of historical and contextual dimensions of professional orientation, assessment, research, career, theory, and lifespan development
2. Explain an understanding of group dynamics and construct clinical interventions that foster development
3. Apply ethical, empirically grounded, and culturally relevant strategies and models in counseling practice
4. Develop advocacy and leadership principles and practically apply them in the context of professional school counseling
5. Apply social and cultural diversity theories, models, and multicultural competencies in counseling practice and research
6. Demonstrate an understanding of the history and current best practices of school counseling, as well as the roles and responsibilities of a school counselor across grade levels
7. Identify and respond to characteristics, risk factors, and warning signs for students at risk for learning mental health, behavioral disorders

Program Description

- 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 practices and research 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. We provide constructivist and experiential learning environments in our classes and are committed to reflexive leadership. We seek 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 2017:

The Department of Counseling and Human Services is focused on program quality which is exemplified through our commitment to accreditation by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). CACREP accreditation provides recognition of the quality and scope of training as well as assures students that the program is stable and committed to meeting professional benchmarks of quality. Our three master's programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling) and our Counselor Education Ph.D. program are currently accredited by CACREP. We are pursuing re-accreditation, and as is expected of accredited programs, we are currently completing the self-study process in preparation for an accreditation site visit. CACREP accreditation is critical as you compare programs in that counselors must be graduates of a CACREP program as of 2022 to be credentialed as a National Certified Counselor.

School of Education

Accreditation also streamlines licensure and credentialing processes for professional counselors.

Admission

In our admission process, we consider multiple facets of an applicant's portfolio and background because we believe that successful counselors need to be interpersonally skilled, highly self-aware, professionally mature, academically prepared for graduate work, and committed to the values and philosophies of the counseling profession and the Department of Counseling and Human Services at Syracuse University. Therefore, academic, interpersonal, professional, leadership, and personal components are integrated in our admission decision process.

The Department of Counseling and Human Services faculty seeks to admit individuals who are personally and academically prepared to be successful in completing the master's degree program in Counseling. Within these parameters, the faculty is committed to admitting students who represent diverse backgrounds or who have special abilities to serve a diverse population. Admission is highly competitive and conducted three times a year.

Major Requirements

- The Master of Science in School Counseling is a 48 credit hour program.
 - COU 612 - Professional Orientation & Ethical Practice 3 credit(s)
 - COU 614 - Group Work in Counseling 3 credit(s)
 - COU 624 - Theories of Counseling 3 credit(s)
 - COU 626 - Social and Cultural Dimensions of Counseling 3 credit(s)
 - COU 628 - Life-Span Human Development 3 credit(s)
 - COU 642 - Career Development 3 credit(s)
 - COU 644 - Counseling Prepracticum 3 credit(s)
 - COU 646 - Assessment in Counseling 3 credit(s)
 - COU 729 - The Counselor in the Schools 3 credit(s)
 - COU 749 - Leadership and School Counseling Program Implementation 3 credit(s)
 - COU 750 - Practicum in Counseling 3 credit(s)
 - COU 758 - Research Methods 3 credit(s)
- COU 790 - Internship in Counseling 3-6 credit(s)

Two Electives

Students can complete the School Counseling program on a part-time basis. Consultation with the advisor about which courses to take which semester is especially needed for part-time study.

Transfer Credit

The Graduate School at Syracuse University allows students to transfer in up to 30% of the credits required for a master's degree from other academic institutions. Only courses taken within the last seven years in which grades of "B" or better were earned can be transferred. Once matriculated, decisions about transfer of specific courses, as well as decisions about whether any

course may be used to waive a required course, are made by the student's advisor in consultation with appropriate faculty. Some courses (for example, **Practicum**) taken elsewhere may not be used to substitute for the same course at SU.

Science/Biology Education: Preparation (7-12), MS

Contact:

Sharon Dotger, 150 Huntington Hall, 315-443-9138, sdotger@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.

For decades, science education at Syracuse University 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: 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: children are born investigators; teaching science means students use core scientific ideas and practices; students' understanding develops over time; science requires both knowledge and practice; science education should connect students' interest and experiences; 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.

Student Learning Outcomes

- Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote

achievement for all students.

- Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.
- Implement instruction that engages and challenges all students to meet or exceed the learning standards.
- Work with all students to create a dynamic learning environment that supports achievement and growth.
- Use multiple measures to assess and document student growth, evaluate instructional effectiveness and modify instruction.
- Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development and learning.
- Set informed goals and strive for continuous professional growth

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) required*

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)

School of Education

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 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.

Science Content

This program requires: A major in biology or chemistry or earth science 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 include:

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/Chemistry Education: Preparation (7-12), MS

Contact

Sharon Dotger, 150 Huntington Hall, 315-443-9137, sdotger@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.

For decades, science education at Syracuse University 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: 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: children are born investigators; teaching science means students use core scientific ideas and practices; students' understanding develops overtime; science requires both knowledge and practice; science education should connect students' interest and experiences; 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.

Student Learning Outcomes

Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.

- Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.
- Implement instruction that engages and challenges all students to meet or exceed the learning standards.
- Work with all students to create a dynamic learning environment that supports achievement and growth.
- Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.
- Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning

Set informed goals and strive for continuous professional growth

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) required*

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.

School of Education

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 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.

Science Content

This program requires: A major in biology or chemistry or earth science 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 include:

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

Sharon Dotger, 150 Huntington Hall, 315-443-9138, sdotger@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. For decades, science education at Syracuse University 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: 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: children are born investigators; teaching science means students use core scientific ideas and practices; students' understanding develops overtime; science requires both knowledge and practice; science education should connect students' interest and

experiences; 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 Earth Science 7-12. There are also application, tests, and other requirements.

Student Learning Outcomes

- Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.
- Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.
- Implement instruction that engages and challenges all students to meet or exceed the learning standards.
- Work with all students to create a dynamic learning environment that supports achievement and growth.
- Use multiple measures to assess and document student growth, evaluate instructional effectiveness and modify instruction.
- Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning
- Set informed goals and strive for continuous professional growth
- 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) required*

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)

School of Education

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 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.

Science Content

This program requires: A major in biology or chemistry or earth science 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 include:

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/Physics Education: Preparation (7-12), MS

Contact:

Sharon Dotger, 150 Huntington Hall, 315-443-9138, sdotger@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. For decades,

science education at Syracuse University 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: 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: children are born investigators; teaching science means students use core scientific ideas and practices; students' understanding develops over time; science requires both knowledge and practice; science education should connect students' interest and experiences; 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 Physics 7-12. There are also application, tests, and other requirements.

Student Learning Outcomes

- Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.
- Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.
- Implement instruction that engages and challenges all students to meet or exceed the learning standards.
- Work with all students to create a dynamic learning environment that supports achievement and growth.
- Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.
- Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning
- Set informed goals and strive for continuous professional growth
- 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

School of Education

(courses with * include field experience)

EDU 606 - Understanding Learning and Teaching 4 credit(s) *

RED 625 - Literacy Across the Curriculum 3-4 credit(s) required*

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 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.

Science Content

This program requires: A major in biology or chemistry or earth science 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 include:

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 adolescence 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 shared 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 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. Content knowledge.

Inclusive and culturally relevant pedagogy.

Assessment of student learning and development of social studies literacy. Professional conduct and collaboration.

Student Learning Outcomes

- Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.
- Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.
- Implement instruction that engages and challenges all students to meet or exceed the learning standards.
- Work with all students to create a dynamic learning environment that supports achievement and growth.
- Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.
- Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning
- Set informed goals and strive for continuous professional growth

School of Education

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) 4 credit(s) required *

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) 3 credit(s) required*

SED 640 - Participation in the Professional Development School 0-1 credit(s) (Social Studies Academy)

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 required *

EDU 622 - International Education for Transformation 3 credit(s)

SED 640 - Participation in the Professional Development School 0-1 credit(s) (Social Studies Academy) required

SED 616 - Assessment & Data-Driven Instruction 3 credit(s) 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 (appropriate level) 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:

Derek Seward, PH.D., Sims Hall, Suite 440 315-443-2266, dxseward@syr.edu

Core Faculty

Dr. James Bellini, Professor & Department Chairperson

Dr. Melissa Luke, Professor

Dr. Derek Seward, Associate Professor

Dr. Caroline O'Hara, Assistant Professor

Program Description

- The Master of Science in Student Affairs Counseling prepares counselors for post-secondary educational settings who will have the knowledge and skills to promote and enhance the healthy development of all students in those settings. With the current context of higher education and some of the challenges present, it is a critical time for counselors to be engaged in the services and supports offered to undergraduate and graduate students. Our program emphasizes critical counseling skills that provide a foundation for professionals to meet the needs of both students in crisis and those

who are engaged in developmental transitions during the collegiate experience.

- 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

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 practices and research 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. We provide constructivist and experiential learning environments in our classes and are committed to reflexive leadership. We seek 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.

Student Learning Outcomes

1. Synthesize historical and contextual dimensions of professional orientation, assessment, research, career, theory, and lifespan development
2. Explain group dynamics and construct clinical interventions that foster development
3. Apply ethical, empirically grounded, and culturally relevant strategies and models in counseling practice
4. Develop advocacy and leadership principles and practically apply them in the context of professional college counseling and student affairs
5. Apply social and cultural diversity theories, models, and multicultural competencies in counseling practice and research
6. Explain the history, roles and responsibilities,

School of Education

current trends, and ethical and legal considerations of college counseling and student affairs

7. Apply student development theories, and assessments specific to college counseling and student affairs to devise strategies to assist individuals in higher education settings

S.U. Re-Accredited through 2017:

The Department of Counseling and Human Services is focused on program quality which is exemplified through our commitment to accreditation by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). CACREP accreditation provides recognition of the quality and scope of training as well as assures students that the program is stable and committed to meeting professional benchmarks of quality. Our three master's programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling) and our Counselor Education Ph.D. program are currently accredited by CACREP. We are pursuing re-accreditation, and as is expected of accredited programs, we are currently completing the self-study process in preparation for an accreditation site visit. CACREP accreditation is critical as you compare programs in that counselors must be graduates of a CACREP program as of 2022 to be credentialed as a National Certified Counselor. Accreditation also streamlines licensure and credentialing processes for professional counselors.

Admission

In our admission process, we consider multiple facets of an applicant's portfolio and background because we believe that successful counselors need to be interpersonally skilled, highly self-aware, professionally mature, academically prepared for graduate work, and committed to the values and philosophies of the counseling profession and the Department of Counseling and Human Services at Syracuse University. Therefore, academic, interpersonal, professional, leadership, and personal components are integrated in our admission decision process.

The Department of Counseling and Human Services faculty seeks to admit individuals who are personally and academically prepared to be successful in completing the master's degree program in Counseling. Within these parameters, the faculty is committed to admitting students who represent diverse backgrounds or who have special abilities to serve a diverse population. Admission is highly competitive and conducted three times a year.

Major Requirements

The M.S. in Student Affairs Counseling is a 48 credit hour program.

- Required courses include the following:
- COU 612 - Professional Orientation & Ethical Practice 3 credit(s)
- COU 614 - Group Work in Counseling 3 credit(s)
- COU 624 - Theories of Counseling 3 credit(s)

- COU 626 - Social and Cultural Dimensions of Counseling 3 credit(s)
- COU 628 - Life-Span Human Development 3 credit(s)
- COU 642 - Career Development 3 credit(s)
- COU 644 - Counseling Prepracticum 3 credit(s)
- COU 646 - Assessment in Counseling 3 credit(s)
- COU 651 - Crisis Counseling 3 credit(s) /COU 675
- COU 700 - Selected Topics in Counseling 1-6 credit(s) College Counseling and Student Affairs Counseling
- COU 750 - Practicum in Counseling 3 credit(s)
- COU 758 - Research Methods 3 credit(s)
- COU 790 - Internship in Counseling 3-6 credit(s)
- HED 664 - Administrative Principles and Practices for Higher Education 3 credit(s)

HED 712 - Research on the College Student 3 credit(s)

Students can complete the Student Affairs Counseling program on a part-time basis. Consultation with the advisor about which courses to take which semester is especially needed for part-time study.

Transfer Credit

The Graduate School at Syracuse University allows students to transfer in up to 30% of the credits required for a master's degree from other academic institutions. Only courses taken within the last seven years in which grades of "B" or better were earned can be transferred. Once matriculated, decisions about transfer of specific courses, as well as decisions about whether any course may be used to waive a required course, are made by the student's advisor in consultation with appropriate faculty. Some courses (for example, **Practicum**) taken elsewhere may not be used to substitute for the same course at SU.

Teaching and Curriculum, MS

Contact:

for M.S. program; Benjamin Dotger, 150 Huntington Hall, 315-443-9659, bdotger@syr.edu

Student Learning Outcomes

1. Apply knowledge of one area of research methods (e.g., qualitative, quantitative or emerging methods) to understand educational research or practice.
2. Synthesize an in-depth knowledge of scholarship in area(s) of specialization (topically-focused body of literature)(IDDE, CFE, EDA, Incl. & Dis Rights)
3. Discuss relevant theories and scholarship within one's area of specialization (IDDE, CFE, EDA, Incl. & Dis Rights) with scholarly audiences.
4. Articulate connections between one's

specialization coursework and one's intended profession

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

Contact:

Zaline Roy-Campbell, 200 Huntington Hall, 315-443-8194, zmroycam@syr.edu

Description

The Teaching English Language Learners (TELL)/First Certificate program prepares teachers to

School of Education

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 in another teaching area or an education background, and is a 40-credit course of study typically pursued full-time over 15 months, beginning in May (a summer-fall-spring-summer sequence). It meets the academic requirements for the New York teaching certificate to teach English to Speakers of Other Languages (for all grades, PreK-12).

The program also requires a minimum of 12 credits in one language other than English as an entry requirement.

Student Learning Outcomes

1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.
 2. Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.
 3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.
 4. Work with all students to create a dynamic learning environment that supports achievement and growth.
 5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.
 6. Demonstrate professional responsibility and engage relevant stakeholders to maximize student growth, development, and learning
 7. Set informed goals and strive for continuous professional growth
- Master's Level Course Requirements
 - 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)
- 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. To be completed before student teaching.
- 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 of fieldwork
- LIN 591 - Second Language Acquisition 3 credit(s)
- EDU 508 - Student Teaching 2-15 credit(s) 3 credit(s) required (one semester of half-day work in schools; includes SPE 612 and ELL 635 fieldwork time)

ELL 655 - Teaching English Language Learners Practicum and Capstone Seminar 6 credit(s) (minimum of 20 days student teaching in an ESL classroom)

Students will complete a professional portfolio requiring the integration of research and practice at two different points in the program--one following the completion of three key courses (ELL 615, Linguistics for Teachers of English Language Learners; ELL 625, Methods of Teaching Literacy to English Language Learners; RED 607, Issues in Multicultural Literacies) and the other following the completion of ELL 655, Teaching English Language Learners Practicum and Capstone Seminar.

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.

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. The program helps students identify appropriate courses.

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.

Interested students should contact the 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.

Liberal Arts Distribution course requirements:

Language Other than English 12 credits or equivalent of a language other than English must be completed no later than the semester before EDU 508. Equivalency would include such things as passing the Level II CLEP examination in a foreign language; or completing one or more college courses at a level beyond introductory, such that the college credits earned plus the credits represented by the lower level courses that were waived would equal 12 or more semester hours.

- One course in each of the following
- Writing
- Mathematics
- Natural Science
- Artistic Expression
- History

Social Science other than History

Humanities (If not otherwise met, may be met by the linguistics (LIN) requirements in the program.)

Degree Awarded: M.S. in Teaching English Language Learners (First Certification)

Teaching English Language Learners, MS

Contact

Zaline Roy-Campbell, 200 Huntington Hall, 315-443-8194, zmroycam@syr.edu

School of Education

The Teaching English Language Learners (TELL) 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 who have met all requirements for NYS certification in another teaching area by the time of entry, 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 meets the academic requirements for the New York teaching certificate to teach English to Speakers of Other Languages (for all grades, PreK-12).

The program also requires a minimum of 12 credits in one language other than English, or equivalent. This requirement must be met before taking ELL 655. Equivalency would include such things as passing the Level II CLEP examination in a foreign language; or completing one or more college courses at a level beyond introductory, such that the college credits earned plus the credits represented by the lower level courses that were waived would equal 12 or more semester hours.

Student Learning Outcomes 1. Acquire knowledge of each student, and demonstrate knowledge of student development and learning to promote achievement for all students.

2. Know the content they are responsible for teaching, and plan instruction that ensures growth and achievement for all students.

3. Implement instruction that engages and challenges all students to meet or exceed the learning standards.

4. Work with all students to create a dynamic learning environment that supports achievement and growth.

5. Use multiple measures to assess and document student growth, evaluate instructional effectiveness, and modify instruction.

6. Demonstrate professional responsibility and engage relevant stakeholders to maximize

student growth, development, and learning

7. Set informed goals and strive for continuous professional growth

- 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) 25 hours of fieldwork required, PreK-6
- ELL 635 - Methods of Literacy Across the Curriculum for English Language Learners 3 credit(s) 25 credits of fieldwork required, 7-12
- 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:

Melissa Luke, Ph.D., Sims Hall, Suite 440, 315-443-2266, mmluke@syr.edu

Core Faculty

Dr. James Bellini, Professor & Department Chairperson

Dr. Melissa Luke, Professor

Dr. Derek Seward, Associate Professor

Dr. Caroline O'Hara, Assistant Professor

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 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.

The overall goal for the doctorate in Counseling and Counselor Education is to produce professors, administrators, and clinicians who will become leaders at the regional and national level in their area(s) of expertise. That leadership will include contributing to the professional body of knowledge through research and disciplined practice, planning and organizing systemic services to the larger community, and establishing preparation programs for counselors to serve the future needs of society.

Graduates of the Syracuse Ph.D. Counseling and Counselor Education program will:

Demonstrate a high level of competence as practicing professional counselors in a variety of counseling settings;

Manifest advanced expertise in diversity, sociocultural, and social justice matters, how culture impacts the process of counseling, and how social systems impact culture;

Demonstrate knowledge and skill in the area of clinical supervision, including how supervision shapes skills, reinforces preferred practices, and supports the caregiver;

Possess the requisite skills to contribute to the body of knowledge in professional counseling through scholarly research and writing, including research conceptualization, designing research, analysis of data, and dissemination of findings;

Demonstrate advanced skill in assessment within at least one specific context;

Demonstrate advanced competence in theory construction, including philosophical premises that relate to particular theories (counseling, career development, human development);

Demonstrate competence in the use of technology for teaching, supervision, research, and practice;

Demonstrate advanced understanding of the counseling profession, including its history, philosophy, and unique contributions to society;

Develop a specialty within or related to the counseling profession;

Demonstrate pedagogical competence in delivering counselor education curricula;

Display the highest level of professional ethics and personal integrity; and

Address and contribute to issues of professional leadership and advocacy through active involvement in state, regional, and national professional associations.

School of Education

- 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 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 practices and research 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 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 Health Counselor.

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 practices and research 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.

S.U. Re-Accredited through 2017:

The Department of Counseling and Human Services is focused on program quality which is exemplified through our commitment to accreditation by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). CACREP accreditation provides recognition of the quality and scope of training as well as assures students that the program is stable and committed to meeting professional benchmarks of quality. Our three master's programs (Clinical Mental Health Counseling, School Counseling, and Student Affairs Counseling) and our Counselor Education Ph.D. program are currently accredited by CACREP. We are pursuing re-accreditation, and as is expected of accredited programs, we are currently completing the self-study process in preparation for an accreditation site visit. CACREP accreditation is critical as you compare programs in that counselors must be graduates of a CACREP program as of 2022 to be credentialed as a National Certified Counselor. Accreditation also streamlines licensure and credentialing processes for professional counselors.

Admission

In our admission process, we consider multiple facets of an applicant's portfolio and background because we believe that successful counselor educators, supervisors, and leaders need to be interpersonally skilled, highly self-aware, professionally mature, academically prepared for graduate work, and committed to the values and philosophies of the counseling profession and the Department of Counseling and Human Services at Syracuse University. Therefore, academic, interpersonal, professional, leadership, and personal components are integrated in our admission decision process.

The Department of Counseling and Human Services faculty seeks to admit individuals who are personally and academically prepared to be successful in completing the doctoral program in Counseling and Counselor Education. Within these parameters, the faculty is committed to admitting students who represent diverse backgrounds or who have special abilities to serve a diverse population. Admission is highly competitive and conducted once a year.

- Applicants for admission to the Ph.D. program in Counseling and Counselor Education will be evaluated on the following criteria:
- Prior graduate work in counseling or related field. Applicants should have completed the equivalent of a master's degree in counseling or rehabilitation counseling and should have a minimum graduate grade point average of 3.25;
- The Graduate Record Examination;
- Completion of a minimum of one year of work experience in counseling settings prior to admission to the doctoral program is desirable;
- Professional references from former professors and professional colleagues;
- Potential for and evidence of leadership and advocacy;
- History of and potential for tenacity, engagement, and collaboration;
- Congruence of professional goals with doctoral program features; and,

A writing sample (which may be a paper written for a master's level course).

The Process of Admission

The deadline for doctoral applications is December 1 for matriculation the following fall semester. This deadline is required for persons seeking funding, including fellowships or graduate assistantships. Prospective students who wish to study part-time should contact Dr. Nicole R. Hill, doctoral program co-coordinator. All application materials, including the Department application, can be obtained through the Department website. Doctoral applications are reviewed by the entire full-time faculty. A positive review of the application will be followed by an interview.

Major Requirements

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.

• **Required doctoral courses in counseling:**

COU 800 - Selected Topics 1-6 credit(s)

COU 800-Experiential & Constructivist Pedagogy in Counselor Education(3 credits)

- COU 800-Reflexive Leadership in Counselor Education(3 credits)
- COU 876 - Ecological Issues in Counselor Education & Supervision 3 credit(s)
- COU 874 - Theory and Practice of Clinical Supervision 3 credit(s)
- COU 872 - Advanced Theory and Practice in Group Work 3 credit(s)
- COU 878 - Seminar in Counseling Theory 3 credit(s)
- COU 882 - Seminar in Professional Issues 3 credit(s)
- COU 860 - Advanced Practicum in Counseling 3 credit(s)
- COU 950 - Doctoral Internship 0-6 credit(s)

School of Education

COU 910 - Doctoral Research Seminar 0-3 credit(s)

The Research Sequence:

The doctoral research experience is an intentional plan to develop research expertise and experience for each student. It is part of the process of establishing a scientist-practitioner perspective that undergirds the entire doctoral experience, leading to data-based counseling practice, contributions to the body of knowledge in the helping services, and program evaluation skills. All doctoral students complete a minimum of 12 credit hours of research course work (beyond the master's curriculum) during which the student will be expected to acquire receptive literacy in both quantitative and qualitative statistics and research design and a depth of knowledge in one or the other. The Department offers additional assistance in research through the COU 910 Doctoral Research Seminar.

Students must complete a research/statistics sequence of courses with either a Qualitative Research or a Quantitative Research emphasis. In either selection, students must take one course in the alternative research approach. Students are encouraged to take research courses beyond those that are required and research may be chosen as a cognate area.

- **Possible Qualitative Research Methods sequence:**

- EDU 603 - Introduction to Qualitative Research 3 credit(s)
- EDU 647 - Statistical Thinking and Applications 3 credit(s)
- EDU 810 - Advanced Seminar in Qualitative Research I 3 credit(s)

EDU 815 - Advanced Seminar in Qualitative Research II 3 credit(s)

Possible Quantitative Research Methods sequence:

- EDU 603 - Introduction to Qualitative Research 3 credit(s)
- EDU 647 - Statistical Thinking and Applications 3 credit(s)
- EDU 791 - Advanced Seminar in Quantitative Research Methods I 3 credit(s)

EDU 886 - Multivariate Research Methods 3 credit(s) / COU886-Multivariate Research Methods

- OR

PSY 756 - Experimental Design and Statistical Methods II 3 credit(s)

Required Cognate (minor): 9 - 12 credits

Each student must establish an area of focus in addition to the required doctoral curriculum. Courses for this focus will be determined by the student in consultation with the doctoral advisor. With few exceptions, cognate areas are completed outside the Department (e.g., clinical psychology, distance learning, marriage and family therapy, higher education). Cognates may also be comprised of courses from different departments but following a particular theme (e.g., research methodology/statistics).

Transfer Credit

No more than one-half of credit hours in your doctoral program, not including doctoral dissertation credits, may be transferred into Syracuse University from other institutions of higher education.

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.

Student Learning Outcomes

1. Explain historical, philosophical, and/or sociological foundations of educational practice and policy on issues related to inequality in education.
2. Expand and synthesize knowledge base on the way in which schools reproduce or reduce inequality in schools and schooling.
3. Evaluate research that explores the taken-for-granted assumptions and values underlying education
4. Compare and contrast methodological frameworks to shape the conceptualization, design and process of educational research.
5. Conduct interdisciplinary scholarly research that integrates multiple perspectives

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.

A minimum of 90 credit hours beyond the baccalaureate degree which includes a minimum of 45 credit hours in a Major area is required plus 9-24 dissertation credit hours.

At least half of all coursework must be taken at Syracuse University and up to 30 credits can be transferred in from a graduate program at another institution with advisor's approval.

Each program of study must include EDU 781: Institutions and Processes of Education and CFE 700: Epistemology and the Politics of Knowledge.

The PhD program in Cultural Foundations of Education is research-oriented. Students are required to take at least 12 credit hours of coursework on research methodology so they will have a depth of competence in one research methodology and be sufficiently familiar with other methods used with some frequencies in their area of expertise. Students work with their advisor to select research methodology courses that are most appropriate for students' professional goals.

Educational Leadership, EdD

Contact:

Joseph Shedd, 150 Huntington Hall, 315-443-2685, jshedd@syr.edu

Student Learning Outcomes

1. Apply qualitative, quantitative and emerging research methods in design and execution of research.
2. Critique approaches to designing and conducting scholarship in the field
3. Develop a robust understanding of scholarship relevant to the knowledge, disposition and performance standards for educational leaders of the Interstate School Leaders Licensure Consortium
4. Develop an in depth grounding of scholarship in areas of specialization
5. Communicate orally and in writing regarding issues of education and school leadership with scholarly audiences.
6. Master the ability to communicate orally and

School of Education

in writing regarding issues of education and school leadership with a variety of stakeholder audiences (i.e. parents, educators, community member, school leaders, etc.)

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 Postsecondary 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.

Student Learning Outcomes

1. Examine, synthesize, and integrate theories, research, and practices of leadership, organization, and governance that impact higher education institutions and federal/state systems and agencies
2. Demonstrate knowledge of theories, philosophies, research, and practices that facilitate effective teaching, learning, development and overall student success
3. Synthesize and analyze historic and contemporary social and political issues in K-12 and higher education landscapes using critical perspectives and interdisciplinary approaches
4. Become familiar with various research paradigms and practices, develop competence in a research methodology, and synthesize and analyze a topically-focused body of higher education literature

5. Develop an understanding of systems of inequity in higher education and experiences of marginalized groups in higher education, and how to lead change toward equity and social justice

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.

Instructional Design, Development and Evaluation, PhD

Contact:

Jing Lei, Chair, 265 Huntington Hall, 315-443-1362, jlei@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.

Student Learning Outcomes

1. Compare and contrast theories and practices in areas of instructional analysis, design, development, implement, evaluation
2. Demonstrate adv skills in Instr design and technology research and scholarly practices
3. Develop advanced reflective & ongoing professional dev. practices
4. Connect w/scholars & practitioners in areas of interest
5. Demonstrate advanced research and data analysis competencies*

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, kpchandl@syr.edu

Student Learning Outcomes 1.Explain foundational knowledge of literacy history, theories, research, and instructional practice

2.Summarize and synthesize understanding of a topically-focused body of literacy literature

3.Explain critical issues in cultural diversity and equity in literacy research, teaching, and service.

4.Advances an advocacy and leadership-oriented professional identity.

5.Show knowledge of strategies for engaging students, families, and communities in promoting literacy for all.

6.Demonstrate expertise as a literacy teacher educator, including undergraduate and graduate teaching, field supervision, advising, and mentoring.

7.Conduct publishable original literacy research.

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, 230 Huntington Hall, 315-443-4751, 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.

Student Learning Outcomes

1. Explain foundational knowledge of mathematics education history, theories, research, and instructional practice
2. Synthesize understanding of a topically-focused body of mathematics education literature
3. Model a reflective stance toward the teaching and learning of mathematics
4. Model an advocacy and leadership oriented professional identity
5. Demonstrate varied expertise as a mathematics educator, including undergraduate and graduate teaching, field supervision, advising and mentoring
6. Conduct publishable original mathematics education research

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.

Course Requirements

- Students complete a minimum of 90 graduate credits beyond the baccalaureate degree, including the following:
- at least 48 credits in mathematics (MAT), mathematics education (MTD), and other education courses;
- at least 12 credits of research methods and/or other scholarly inquiry courses; Recommended sequences:
- Qualitative emphasis: EDU 603, EDU 791, EDU 810, EDU 815
- Quantitative emphasis: EDU 603, EDU 791,

EDU 737, EDU 886, EDU 888

EDU 781 Institutions and Processes of Education

Other Requirements

- preliminary exams (written questions followed by an oral exam);
- qualifying exams (written questions followed by an oral exam, a research presentation at a professional conference, and submission of a paper for publication);
- a research apprenticeship (after successful completion of preliminary exams); and
- dissertation work (9-24 credits), participation in MTD 830 Research Seminar in Mathematics Education (faculty and doctoral students discuss and present research in the field)

Special Opportunities

Students have the opportunity to work with faculty members through internships in conjunction with the following courses:

EED 323 Primary Grade Mathematics Methods and Curriculum

EED 423 Intermediate Grade Mathematics Methods and Curriculum

SED 413/613 Methods and Curriculum in Teaching/Mathematics (for grades 7-12)

SED 416/616 Assessment & Data-Driven Instruction

Financial Assistance

The majority of full-time students in this program are supported by assistantships, awarded by either the Department of Mathematics or the School of Education's Teaching and Leadership Department. Research assistantships are awarded through mathematics education faculty grants.

Financial awards are also available from the Graduate School or School of Education competitive scholarship, for qualified students. The application processes for these awards are described on the Graduate School or School of Education website.

Students may contact the program coordinator for more information.

Science Education, PhD

Contact

Sharon Dotger, 150 Huntington Hall, 315-443-9138, sdotger@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. The Ph.D. program in Science Education offers two primary options.

Graduates of the Ph.D. program in Science Education with an emphasis on teaching and

School of Education

teacher education for the K-12 level 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.

Student Learning Outcomes 1. Explore foundational knowledge of science education history, theories, research, and instructional practice.

2. Synthesize understanding of a topically-focused body of science education literature.

3. Demonstrate expertise as a science teacher educator, including undergraduate or graduate teaching, field supervision, advising, and mentoring.

4. Conduct publishable original science education research.

Additional Information

Doctoral study with an emphasis in applied exercise physiology is also 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.

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, baferr1@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.

Student Learning Outcomes

1. Describe foundations, history, theoretical frameworks, law, & policy
2. Synthesize knowledgebase in effective and research-based inclusive instructional practices.
3. Apply quantitative and qualitative research methodologies with an emphasis in one area to educational issues, context or practice.
4. Synthesize and critique a topically-focused body of inclusive/critical special education literature
5. Demonstrate expertise as an inclusive/critical special education teacher educator, including undergraduate and graduate teaching, field supervision, advising, & mentoring
6. Design, conduct, and disseminate original inclusive/critical special education research

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:

Mara Sapon-Shevin, 150 Huntington Hall, 315-443-9659, msaponsh@syr.edu

Student Learning Outcomes

1. Develop skills in qualitative, quantitative and emerging research methods.
2. Understand and critique scholarship and approaches to scholarship in the field.
3. Develop a robust understanding of scholarship in teaching and curriculum, including research, theories, and prominent scholars.
4. Develop a robust understanding of historical and contemporary issues of teaching and curriculum across various contexts (i.e. political, social, organizational, etc.)
5. Master the ability to communicate (speaking, listening, writing, presenting, etc.) with a scholarly audience.

School of Education

6. Master the ability to communicate (speaking, listening, writing, presenting, etc.) with a stakeholder audiences (i.e. parents, educators, community member, school leaders, etc.)

7. Develop an in-depth grounding in a focus area of specialization.

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 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

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, cabboth@law.syr.edu).

Certificate of Advanced Study

Designing Digital Instruction (CAS)

Contact

Jing Lei, Chair, 265 Huntington Hall, 315-443-1362, jlei@syr.edu

Faculty

Tiffany A. Koszalka, Professor

Jing Lei, Associate Professor

Alexander Romiszowski, Research Professor

Charles Spuches, Adjunct Professor

Robert Pusch, Adjunct Professor

Program Description

The Graduate Certificate in Designing Digital Instruction (15 credits) provides the opportunity to develop the competencies required to design digital resources and online or e-learning instruction. The courses are carefully combined into a fully online program that is built on a framework of internationally validated standards for instructional designers, online instructors, and online learners. This provides candidates with a 360-degree (designer, instructor, learner) view of digital instruction and learning facilitating

them in learning how to design and create sound instructional resources and environments that will lead to quality learning experiences. In addition to the course work, candidates will be required to develop a digital portfolio that consists of both sample digital projects and reflections on their development of instructional designer, online instructor, and online learner competencies.

This program provides professionals with the opportunity to advance their knowledge and skills in the area of instructional design and learning with digital technologies.

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. In addition to the certificate in Designing Digital Instruction, the department offers certificates in both Educational Technology and Instructional Design Foundations, as well as M.S. and Ph.D. degrees in Instructional Design, Development and Evaluation.

Curriculum of the Certificate in Designing Digital Instruction (15 credits)

- Required - 4 courses (12 credits)
- IDE 611 - Technologies for Instructional Settings 3 credit(s)
- IDE 756 - Design of Online Courses 3 credit(s)
- IDE 761 - Strategies in Educational Project Management 3 credit(s)
- IDE 737 - Advanced Instructional Design 3 credit(s)

- Elective - Choose 1 course (3 Credits) from the list below
- IDE 764 - Planned Change and Innovation 3 credit(s)
- IDE 771 - Methods and Techniques for Teaching and Training Adults 3 credit(s)
- IDE 656 - Computers as Critical Thinking Tools 3 credit(s)
- IDE 772 - Educational Technology in International Settings 3 credit(s)

- **Required Portfolio:** Reviewed by advisor as a final assessment of the program, using rubric.
- Sample digital projects: (Foci: design-interactive & reflective; facilitating-activity & social engagement)

Self-reflection: Instructional Designer competencies, Instructor competencies, Online learner competencies (Reflection activities are built into in several of the courses.)

Disability Studies, CAS

Contact

Alan Foley, Program Coordinator, 350 Huntington Hall, 315-443, 3343 afoley@syr.edu

Program website: disabilitystudies.syr.edu

Disability Studies at Syracuse University applies social, cultural, historical, and philosophical perspectives to disability in society. Building on the proud tradition of Syracuse University's School of Education with faculty from across campus, the program is designed to help students understand disability and to prepare them to work to overcome barriers to full participation of all people in society.

The Disability Studies program focuses on disability as social phenomenon, social construct, metaphor, identity, and culture. Consistent with the Syracuse tradition, this program stands at the forefront of the development of the theoretical, research, educational, and advocacy models necessary to remove the legal, physical, policy, and attitudinal barriers that exclude people with disabilities from society.

Student Learning Outcomes

1. Demonstrate an understanding of the social, cultural, and political situation of people with disabilities
2. Describe foundational social, cultural, historical, and philosophical perspectives in the study of disability in society
3. Develop interdisciplinary analysis and critique of cultural representations and stereotypes of people with disabilities
4. Develop skills in disability research, policy, and advocacy
5. Explain the development of disability rights movements

Certificate Requirements

The Certificate of Advanced Study (CAS) program includes 15 semester-hours of graduate courses 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, along with other fields in which they are studying or have studied (e.g., special education, rehabilitation counseling, law, 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

The Disability Studies CAS may be completed through one of two format options:

classes on the Syracuse University campus, possibly mixed with some online classes; or entirely through online classes.

- Each student develops a program of study in consultation with a Disability Studies faculty advisor. The program must be completed within 5 semesters, and all 15 credits for the CAS must be earned through Syracuse University. The program of study must include:

At least 9 (of the 15) credits (3 classes) with the DSP prefix;

A CAS examination (taken in the last semester of coursework)

Educational Leadership, CAS

Contact:

Leela George, 150 Huntington Hall, 315-443-2685, leageorge@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?

Student Learning Outcomes

1.ELCC Standard 1.0: An education leader applies knowledge that promotes the success of every student by collaboratively facilitating the development, articulation, implementation, and stewardship of a shared school vision of learning through the collection and use of data to identify school goals, assess organizational effectiveness, and implement school plans to achieve school goals; promotion of continual and sustainable school improvement; and evaluation of school progress and revision of school plans supported by school-based stakeholders.

2.ELCC Standard 2.0: An education leader applies knowledge that promotes the success of every student by sustaining a school culture and instructional program conducive to student learning through collaboration, trust, and a

personalized learning environment with high expectations for students; creating and evaluating a comprehensive, rigorous and coherent curricular and instructional school program; developing and supervising the instructional and leadership capacity of school staff; and promoting the most effective and appropriate technologies to support teaching and learning within a school environment.

3.ELCC Standard 3.0: An education leader applies knowledge that promotes the success of every student by ensuring the management of the school organization, operation, and resources through monitoring and evaluating the school management and operational systems; efficiently using human, fiscal, and technological resources in a school environment; promoting and protecting the welfare and safety of school students and staff; developing school capacity for distributed leadership; and ensuring that teacher and organizational time is focused to support high-quality instruction and student learning.

4.ELCC Standard 4.0: An education leader applies knowledge that promotes the success of every student by collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources on behalf of the school by collecting and analyzing information pertinent to improvement of the school's educational environment; promoting an understanding, appreciation, and use of the diverse cultural, social, and intellectual resources within the school community; building and sustaining positive school relationships with families and caregivers; and cultivating productive school relationships with community partners.

5.ELCC Standard 5.0: An education leader applies knowledge that promotes the success of every student by acting with integrity, fairness, and in an ethical manner to ensure a school system of accountability for every student's academic and social success by modeling school principles of self-awareness, reflective practice, transparency, and ethical behavior as related to their roles within the school; safeguarding the values of democracy, equity, and diversity within the school; evaluating the potential moral and legal consequences of decision making in the school; and promoting social justice within the school to ensure that individual student needs inform all aspects of schooling.

6.ELCC Standard 6.0: An education leader applies knowledge that promotes the success of every student by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context through advocating for school students, families, and caregivers; acting to influence local, district, state, and national decisions affecting student learning in a school environment; and anticipating and assessing emerging trends and initiatives in order to adapt school-based leadership strategies.

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

School of Education

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:

Jing Lei, Chair, 265 Huntington Hall, 315-443-1362, jlei@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.

Student Learning Outcomes

1. Describe foundational areas of instructional analysis, design, development, implementation, evaluation.
2. Demonstrate foundational skills in instructional design practices
3. Develop practices in self-reflection and professional development
4. Select, use, and evaluate digital technologies to enhance K-12 teaching, productivity, & learning

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. In addition

to the certificate in Educational Technology the department offers certificates in both Designing Digital Instruction and Instructional Design Foundations, as well as M.S. and Ph.D. degrees in Instructional Design, Development and Evaluation.

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:

Jing Lei, Chair, 265 Huntington Hall, 315-443-1362, jlei@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.

Student Learning Outcomes

1. Describe foundational areas of instructional analysis, design, development, implementation, evaluation.
2. Demonstrate foundational skills in instructional design practices
3. Develop practices in self-reflection and professional development
4. Select, use and evaluate appropriate technologies and tools to enhance-instructional practices and learning

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, 259 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 Designing Digital Instruction (15 credits), Educational Technology (15 credits), and Instructional Design Foundations (12 credits); a master's of science degree is offered in Instructional Technology for NYS K-12 permanent certification; as well as M.S., C.A.S., and Ph.D. degrees in Instructional Design, Development and Evaluation

Student Learning Outcomes

1. Compare and contrast theories and practices in areas of instructional analysis, design, development, implement, evaluation.
2. Demonstrate adv skills in Instr design and technology practices / interpretation of literature

3. Develop advanced reflective & ongoing professional dev. practices
4. Connect w/scholars & practitioners in areas of interest
5. Demonstrate advanced field work and data analysis competencies*

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

Michael Schoonmaker, Co-director, M&E; Chair, TRF, msschoon@syr.edu.315-443-2150

Jeffrey Mangram Co-director, M&E; Program Coordinator, Social Studies Education, jamangra@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.

Student Learning Outcomes for the CAS in Media and Education

Students in the Media and Education certificate program are expected to achieve the following educational goals:

1. Analyze the role of popular culture and media as a tool for educational and social purposes.
2. Explain and critically assess the legal, cultural, institutional and ethical dimensions of education and media.
3. Demonstrate skill in media storytelling applied to the goals of education.
4. Integrate media in their specific educational context.

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 to 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

- 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)
- TRF 606 - Visual Storytelling for Education 3 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 students 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.

School Counseling, CAS

Contact

Melissa Luke, Ph.D. Sims Hall Suite 440, 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.

Core Faculty

Dr. James Bellini, Professor & Department Chairperson

Dr. Melissa Luke, Professor

Dr. Derek Seward, Associate Professor

Dr. Caroline O'Hara, Assistant Professor

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.

Student Learning Outcomes

1. Apply social and cultural diversity theories, models, and multicultural competencies in counseling practice and research
2. Demonstrate expertise and an advanced understanding of the history and current best practices of school counseling, as well as the roles and responsibilities of a school counselor across grade levels.
3. Identify and comprehensively respond to characteristics, risk factors, and warning signs for students at risk for learning mental health, behavioral disorders.
4. Demonstrate advanced clinical practice in the P-12 school context

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

School of Education

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.

Accreditation

The C.A.S. in School Counseling is accredited by CAEP and meets the requisite expectations of such professional accreditation. The degree is registered with New York State and meets the curricular requirements for permanent certification as a school counselor.

Recommended Coursework

- To meet the requirements of the C.A.S. in School Counseling, students are recommended to complete the following courses:
- COU 600 - Selected Topics in Counseling 1-6 credit(s) Psychodiagnosis, Treatment, and Psychopharmacology for Counselors
- COU 651 - Crisis Counseling 3 credit(s)
- COU 672 - Counseling Children and Adolescents 3 credit(s)
- COU 675 - Substance Abuse Counseling 3 credit(s)
- COU 678 - Child Centered Play Therapy 3 credit(s)
- COU 729 - The Counselor in the Schools 3 credit(s) (if not courses required in master's degree)

COU 749 - Leadership and School Counseling Program Implementation 3 credit(s)

Additional requirements are identified in consultation with the student's advisor.

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, jshedd@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.

Student Learning Outcomes

1. Leaders support, develop, and nurture all those served by a school system. School district business leaders must demonstrate the knowledge and skills to create and sustain financial and operational conditions that enable all students to meet state learning standards and all staff to serve effectively in achieving that objective. They must demonstrate the ability to identify, develop, and endorse organizational and administrative policies and procedures that support their district's mission, goals, and objectives.

2. Leaders have a vision for schools that they constantly share and promote; they persevere and take the long view. School district business leaders must demonstrate the knowledge and

skills to assist in implementing, monitoring, and evaluating a district strategic plan; monitor and assess programs that support instruction; and assist with the allocation of resources for instructional programs.

3. Leaders hold themselves and others responsible and accountable; they have the courage and judgment to take informed risks. School district business leaders must demonstrate the knowledge and skills to effectively and ethically manage the financial resources and operational functions of a school district, and administer its employment agreements, in accordance with state and federal laws and regulations.

4. Leaders communicate clearly and effectively; they collaborate and cooperate with others. School district business leaders must demonstrate the knowledge and skills to oversee the design and administration of management information systems, implement mass and interactive communication strategies, and effectively present financial data and administrative issues to various audiences, framing choices that help lay audiences understand and make decisions, and framing questions that assure that those with specialized expertise make appropriate recommendations.

5. Leaders promote the success of all students and their districts' interests by understanding, responding to, and influencing the political, economic, legal, regulatory, and cultural contexts that affect public education. School district business leaders must demonstrate the knowledge and skills to keep their superintendents and boards of education apprised of external developments that bear on a district's non-instructional functions and that affect their ability to maintain and support its instructional programs, and they assist the district's leaders or directly represent and advocate for their district in relationships with outside experts and regulatory and legal authorities on all such non-instructional issues.

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.

- The following courses are required by the

School of Education

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 734 - Public Budgeting 3 credit(s)
- PAI 735 - State and Local Government Finance 3 credit(s) (MPA)

EDA 899 - Internship in Educational Administration and Supervision 3-4 credit(s) (This internship seminar is completed at the end of the program)

School of Education

American Sign Language

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 Disability 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 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

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

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 - Professional Orientation & Ethical Practice

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.

School of Education

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.

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.

School of Education

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 - Ecological Issues in Counselor Education & Supervision

School of Education
3 credit(s) Irregularly
Client, professional, and student issues as embedded within multiple and interrelated systems, including political and economic structures. Culturally relevant pedagogy, counseling, research, leadership, and supervision. For doctoral students only.

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 884 - Counselor Education Pedagogy: Experiential and Constructivist Practices

School of Education
3 credit(s) Irregularly
Instructional theories, methods, and teaching practices relevant to counselor education including assessment and evaluation will be discussed, compared, critiqued, and applied. An increased emphasis will be placed on experiential and constructivist approaches. Doctoral level seminar.

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 600 - Selected Topics: Disability Studies Program

School of Education
1-6 credit(s)
Repeatable

DSP 614 - Critical Issues in Disability 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

School of Education

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 and Global Health

School of Education
3 credit(s) At least 1x fall or spring
Crosslisted with: HTW 669
Major theories, historical events, laws, and research related to health and wellness worldwide among those living with disabilities.

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.

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
Addresses issues and trends affecting curriculum and instructional leadership in American schools, and how leaders promote culturally responsive pedagogy, integration of literacy development across the curriculum, 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

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
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

School of Education

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 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.

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

School of Education

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

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

School of Education

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 888 - Structural Equation Modeling and Factor Analysis

School of Education

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

An introduction to structural equation modeling (SEM) and factor analysis (FA), and the uses of these approaches in scientific research.

PREREQ: EDU 791 OR EDU 886

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 915 - Teaching and Leadership for Social Justice

School of Education

3 credit(s) Even Academic Yr e.g. 2004-5

Doctoral seminar exploring the writing of classic and contemporary educators who have had significant impact on the development of educational thinking, policies, and practices that promote democratic schooling and social justice.

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

EDU 999 - Dissertation

School of Education

1-15 credit(s) Every semester

Repeatable

Elementary Education

EED 626 - Elementary Social Studies Methods and Curriculum

School of Education

3 credit(s) Irregularly

Double Numbered with: EED 336

Formulation and teaching of thematic unit plans to children with and without disabilities. Incorporates children's multicultural literature, inquiry-based curriculum materials, primary source documents, and activity-based instruction. Decisions based on concepts and values.

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

School of Education

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.

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

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

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 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

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.

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

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.

School of Education

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.

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

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

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

School of Education

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 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

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 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

School of Education

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 Interventions for Children's Reading Problems

School of Education

3 credit(s) Every semester

Crosslisted with: RED 626

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.

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

College of Engineering and Computer Science

Teresa Abi-Nader Dahlberg, Dean
223 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.

Distance Programs

The College of Engineering and Computer Science has a long and proud history of preparing students to produce practical and sustainable solutions for the most important technological, scientific, and social challenges impacting the future. Through our highly interactive online degree programs, students develop the skills to address critical issues ranging from national security threats to building energy efficient systems. Our online master's degree programs take education beyond theoretical learning with inclusive, interdisciplinary, and collaborative experiences that prepare graduates to solve real-world problems.

Through cutting-edge research, curricular innovations, and multidisciplinary collaboration, the **Master of Science in Cybersecurity** prepares students to identify, prevent, and counteract cybercrime. Students in the M.S. in Cybersecurity program develop the expertise to design and develop secure, assured systems. Curriculum focuses on: Design of new systems that are inherently secure; Protection of systems

such as web, mobile, and critical infrastructures; Systems assurance through application of mathematical logic; Analysis and detection of malware and other cyberattacks; and Data mining and anomaly detection to identify suspicious cyber behavior.

The **Master of Science in Computer Science** program prepares students to discover groundbreaking solutions to the world's most complex technological challenges. Through a curriculum that places an emphasis on mathematical evaluation, the program prepares students to: Incorporate emerging technologies into new system designs; Develop expertise in areas such as security and assurance, artificial intelligence, computer architecture, and advanced programming; and Build the analytical, critical-thinking, and mathematical skills necessary to take on advanced challenges.

The **Master of Science in Computer Engineering program** teaches students to create groundbreaking hardware, software, and assured solutions for new and emerging systems. The M.S. in Computer Engineering curriculum is crafted around our faculty's groundbreaking research in the areas of: Artificial intelligence; The application of data mining methodologies; Assured systems that degrade the face of attack and failure; and The intersection of computational complexity, formal methods, and programming language semantics. Students learn innovative thinking strategies and solve computer engineering challenges in areas such as security and assurance, network systems, computer architecture, and advanced programming.

Students in all of our online programs complete an academically rigorous curriculum and learn in an online environment that mirrors the close interactions of traditional residential degree programs. Courses are taught by many of the same faculty members who teach on campus and faculty are trained in the unique aspects of teaching online. In addition to theoretical learning, our online programs challenge students with inclusive, interdisciplinary experiences that prepare them for real-world applications that enhance their computational, analytical, critical-thinking, and problem-solving skills. More information about Syracuse University's College of Engineering and Computer Science online graduate programs can be found at <http://engineeringonline.syr.edu>

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 www.applyweb.com/cgi-bin/app?s=syr. International students must take the general Graduate Record Examination

College of Engineering and Computer Science

(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 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

Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, Xiyuan Liu, Zhen Ma, George C. Martin, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Radhakrishna Sureshkumar, Lawrence L.

Tavlarides, Pun To Yung

Adjunct/Research Faculty:

Gino Duca, Bart Farrell, Eric Finkelstein, Patrick T. Mather, Kent Ogden, David Quinn, Dana Radcliff, Suresh Santanam

Affiliate Faculty:

Yan-Yeung Luk, Juntao Luo, Cristina Marchetti, Liviu Movileanu

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; jhender@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.

Student Learning Outcomes

1. Use the principles of science and mathematics to identify, formulate and solve advanced engineering problems
2. Apply both analysis and synthesis in the engineering design process, resulting in designs that meet constraints and specifications, including societal, economic, environmental, and other factors as appropriate to the design.
3. Communicate advanced technical contents

effectively with a range of audiences through various media.

4. Establish goals, plan tasks, meet deadlines, manage risk and uncertainty, and function effectively on teams.

5. Demonstrate ethical principles in an engineering context

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);

College of Engineering and Computer Science

- 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.

Chemical Engineering, MS

Department Chair:

Radhakrishna Sureshkumar

329 Link Hall

315-443-1931; fax: 443-9175

Faculty

Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, Xiyuan Liu, Zhen Ma, George C. Martin, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Radhakrishna Sureshkumar, Lawrence L.

Tavlarides, Pun To Yung

Adjunct/Research Faculty:

Gino Duca, Bart Farrell, Eric Finkelstein, Kent Ogden, David Quinn, Dana Radcliffe, Suresh Santanam

Affiliate Faculty:

Juntao Luo, Yan-Yeung Luk, Cristina Marchetti, Liviu Movileanu

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 instrumentation 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.

Student Learning Outcomes

1. Use the principles of science and mathematics to identify, formulate and solve advanced engineering problems.
2. Apply both analysis and synthesis in the engineering design process, resulting in designs that meet constraints and specifications, including societal, economic, environmental, and other factors as appropriate to the design.
3. Communicate advanced technical contents effectively with a range of audiences through various media.
4. Establish goals, plan tasks, meet deadlines,

manage risk and uncertainty, and function effectively on teams.

5. Analyze and design units for advanced chemical engineering processes

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;
- 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.

Civil Engineering, MS

Department Chair

Dr. Ossama "Sam" Salem, 151 Link Hall, omsalem@syr.edu, 315-443-2311

Program Director:

Dr. Dawit Negussey, 151 Link Hall, negussey@syr.edu, 315-443-2311.

Faculty

Riyad S. Aboutaha, 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, 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 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

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.

At least a 3.0 in a 4.0 rating system or equivalent in the B.S. program coursework.

Satisfactory scores on all required graduate entrance examinations. A TOEFL score of 80 or higher is required for international students.

Departmental approval.

Student Learning Outcomes

1. Formulate and solve problems in the fundamentals of their specialty track
2. Formulate and solve specialized problems in advanced fundamentals
3. Use computer programs as well as codes and standards to do analysis and design
4. Use productivity tools in solving engineering problems
5. Solve engineering problems in evolving complementary specialties
6. Do independent research and communicate findings

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 and are expected to complete their entire program within five calendar years of 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)

Completion of 9 to 12 credits of core courses in either structural, geotechnical or construction engineering and management. These required courses are specified in the Graduate Program Profile.

Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile.

CIE 997 - Masters Thesis (6 credits)

Defense of thesis

Participation in the faculty/student seminar program (CIE 660)

Requirements without Thesis (30 credits)

Completion of 9 to 12 credits of core courses in either structural, geotechnical or construction engineering. These required courses are specified in the Graduate Program Profile.

Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile.

Complete one of the following:
CIE 996 - Master's Project (3 credits) or
CIE 995 - Master's Exit Paper (0 credits) and one additional elective course (3 credits)

Participation in the faculty/student seminar program (CIE 660)

Computational Journalism, MS

Contact:

Stephen Masiclat, masiclat@syr.edu
Professor, Co-Director, 255 Newhouse 3
315-443-9243

Jae C. Oh, jcoh@syr.edu
Professor, Co-Director, 4-177 Sci & Tech

Faculty

Aileen Gallagher, Roy Gutterman, Stephen M. Masiclat, Nancy McCracken, 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.

Student Learning Outcomes in Computational Journalism

Students in the Computational Journalism Master's program are expected to achieve the

following educational goals:

1. Demonstrate strong writing ability
2. Demonstrate the ability to construct and tell a story effectively in spoken words, images, text and through multimedia
3. Understand and make use of information technology, and grasp its import for society
4. Understand effective visual language and how to apply it to create visual messages and enhance communications
5. Understand the events and issues of the day in public communications and society in an environment both encouraged and deepened by the liberal arts experience
6. Think analytically, gain numerical proficiency and learn to develop well-researched positions on issues
7. Demonstrate knowledge of the historical traditions in public communications, and of industry practices and products
8. Demonstrate knowledge of ethical practice in the communications field, along with an understanding of the responsibilities communications practitioners have for the public welfare
9. Demonstrate an understanding of the First Amendment freedoms of speech and press along with a commitment to using these freedoms in the service of democracy
10. Develop the knowledge to compare and contrast media systems around the world
11. Learn to value, embrace and support diversity in society and the media
12. Learn to access, evaluate, synthesize and make use of information to create media products
13. Become media literate and a critical consumer of media content
14. Develop the ability to analyze the validity and structure of many types of data, identify any essential public interests captured therein, and, frame the relevant data in a comprehensible story
15. Mine or otherwise obtain raw data and form it into query-able databases
16. Develop the ability to code, modify, and develop the presentation means to communicate newsworthy stories to mass audiences on multiple platforms

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)

College of Engineering and Computer Science

- 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 681 - Explorations in Computing and Programming 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 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 528 Multimedia Projects 3 credit(s)
- MNO 617 - Multiplatform Reporting and Writing 3 credit(s) (for students in track 2)

Computer Engineering (Distance Format), MS

Program Director

Rick DiRubbo, Director of Online Learning, pwdirubb@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, Edmund Yu, Reza Zafarani

Description

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.) degree in computer 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, Google, Facebook, Microsoft, and Intel.

Admission

A bachelor's degree in Computer Engineering, Electrical Engineering, or a related field from an accredited institution is required, with an average GPA of 3.0 or better.

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; GPA of 3.0/4.0 or better. Students with unique credentials might be considered with exceptions.

Degree

The M.S. in Computer Engineering requires students to complete 30 total credits including 12 credits of core courses and 18 credits of electives.

Transfer Credit

A maximum of 9 transfer credits for students admitted to the online programs. 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 credited towards the M.S. degree, and a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University. Students must complete the final examinations in all core courses with an average grade of B- or above.

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.

Computer Engineering, MS

Program Director

Qinru Qiu, Program Director, 4-133 Center for Science and Technology eeccsadmisions@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park McSweeney, Kishan G. Mehrotra, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K.

Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, 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.
- Students with unique credentials might be considered with exceptions.

Student Learning Outcomes

1. Specify system functionality, map the functionality into layers of design abstraction, and translate the functionality at each layer into component level design.
2. Design and conduct experiments, simulations, and verification, as well as analyze and interpret the results.
3. Demonstrate proficiency in the use of

advanced mathematical and analytical techniques and modern engineering tools necessary for engineering practice.

4. Demonstrate the proficiency in software modeling, architecture, design, and implementation using diagramming and analysis tools. (Software Track only)
5. Analyze software application requirement and apply the knowledge of system, architecture, software to perform application development. (Software Track only)
6. Demonstrate the proficiency in system modeling, architecture, design and implementation using hardware description languages and analysis tools. (Hardware Track only)
7. Analyze hardware application requirement and apply the knowledge of system, architecture, and design methodology to the perform application development. (Hardware Track only)
8. Demonstrate the proficiency in fundamental principles of computer and network security, the strategies used by attacks on computer systems, and policies to prevent and detect attacks. (Security Track only)
9. Analyze security requirement of application and apply the knowledge of security principles at system and architecture to perform application development. (Security Track only)

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 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 for 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)
- 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)

College of Engineering and Computer Science

- 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)
- CSE 607 - Mathematical Basis for Computing 3 credit(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.

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 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

Contact:

Rick DiRubbo, Director of Online Learning,
pwdirubb@syrr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Illyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, Edmund Yu, Reza Zafarani

Description:

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.) degree in computer science. 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.

Accreditation:

Accredited by Middle States Association of Colleges and Schools

Admission:

A bachelor's degree in Computer Science, Electrical Engineering, Electronics, Communication, Software Engineering, or a related field from an accredited institution, with an average GPA of 3.0 or better is required. Core competency in Discrete Mathematics, Calculus, Data Structures, Computer Organization, and knowledge of programming languages (C, C++, Java, etc.) is preferred.

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; GPA of 3.0/4.0 or better.

Degree

The M.S. in Computer Science requires students to complete 30 total credits including 12 credits of core courses and 18 credits of electives.

Transfer Credit

A maximum of 9 transfer credits for students admitted to the online programs. 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 credited towards the M.S. degree, and a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University.

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.

Computer Science, MS

Program Director

Qinru Qiu

315-443-2652

eecsadmissions@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung, Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park, McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S.

Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, 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. Most students elect to complete the degree in a less intensive fashion over three or four regular semesters.

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

Computer Science Requirements

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. No more than 6 credits of 500-level courses may be included in the program. Each candidate must submit a coherent program of study of 10 graduate courses, which must be passed with a grade point average of 3.0 (B) or better. This program of study must include the 12-credit Computer Science Core (see below), and at least 18 credits of CIS courses. (Students must gain approval from the CIS Program Committee for non-CIS courses.)

The Graduate School requires that students obtain a minimum grade point average of 2.8 in all graduate courses taken at Syracuse University.

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.

Student Learning Outcomes

1. Analyze algorithms in terms of correctness as well as time and space complexity
2. Apply key data structures and algorithm design techniques to synthesize efficient computational solutions
3. Use formal methods to specify and reason about program and system behavior
4. Apply concepts of abstract machines and protection mechanisms to analyze, design, and develop system-level components that meet functional specifications
5. Apply knowledge of computer architecture (including supports for parallelism) to achieve software performance goals

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

Students must achieve a grade of B- or better in each of these courses. In addition, candidates are required to complete the final examinations in all core courses with an average grade of 2.667 (B-) or better.

Additional 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 may be required to take remedial courses, and those remedial courses cannot be counted toward the 30 credits required for the master's degree. 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.

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 ECS 102 Introduction to Computing. (See Syracuse University Undergraduate Catalog for descriptions of MAT 295, MAT 296, CPS 196, ECS 102.) 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
- CIS 351 - Data Structures
- One elective graduate course with permission of Program Director

Second Semester (Spring)

- CIS 352 - Programming Languages: Theory and Practice
- CIS 341 - Computer Organization and Programming Systems
- CIS 342 - Introduction to Systems Programming
- One elective graduate course with permission of Program Director

Third Semester (Fall)

- One graduate elective
- CIS 477 Introduction to Algorithms
- CIS 486 Design of Operating Systems*

Fourth Semester (Spring)

- CIS 623 - Structured Programming and Formal Methods 3 credit(s)
- CIS 655 - Computer Architecture 3 credit(s)
- CIS 675 - Design and Analysis of Algorithms 3 credit(s)

Fifth Semester (Fall)

- CIS 657 - Principles of Operating Systems 3 credit(s)
- Two elective graduate courses

Sixth Semester (Spring)

- Two elective graduate courses

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 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:

Jae C. Oh, Professor and Chair, eccsadmissions@syr.edu
315-443-2652

Faculty:

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoong Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, Edmund Yu, Reza Zafarani

Description:

The global electrical power grid, financial services, and other critical infrastructure are inextricably dependent on robust cybersecurity to ensure security trust, and system assurance. The explosion in the Internet of Things domain is increasing connectedness amongst devices and the need for securing the resulting data is paramount in today's world. Syracuse University's M.S. in Cybersecurity program is designed to address this national and global need.

Syracuse University has been designated by the National Security Agency and Department of Homeland Security as a Center of Academic Excellence in Information Assurance Research (CAE-R) since 2009.

Learning Outcomes:

Students graduating from this program will be able to;

- identify and analyze vulnerabilities in systems;
- assess the risks faced by systems;
- develop countermeasures to remedy risks;
- develop systems that are secure
- deliver software components or systems that have verifiable assurance properties.

Admission:

Applicants to the M.S. in Cybersecurity should have completed a B.S. in computer science or computer engineering and have the following knowledge and abilities:

- Basic systems knowledge (e.g., fundamentals of traps, interrupts, and trap handling at the instruction-set architecture level; concurrency and coordination mechanisms; access-control matrices, basics of access-control lists and capabilities) Systems programming basics
- Data structures
- Discrete mathematics
- High-level programming experience
- 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-

College of Engineering and Computer Science

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:

Some, but not all, students are provided merit-based tuition scholarships.

Requirements:

Students are required to complete 30 credit hours of courses, consisting of 15 credits of core, 9 credits of technical cybersecurity electives, and 6 credits in CIS/CSE courses at 600 level or higher, as described below:

15-credit core:

- CSE 643 - Computer Security 3 credit(s)
- CSE 644 - Internet Security 3 credit(s)
- CSE 634 - Assurance Foundations 3 credit(s)
- CIS 657 - Principles of Operating Systems 3 credit(s)
- CIS 675 - Design and Analysis of Algorithms 3 credit(s)

Technical Cybersecurity Electives

Students will take 9 credits of Technical Electives

- CIS 628 - Introduction to Cryptography 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

Non technical cybersecurity electives:(Drawn from course offerings from units across SU including College of Law, the iSchool, and Maxwell)

- 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 755 - Politics and Governance in the Information Age 3 credit(s)

6 Additional Credits

6 additional credits drawn from the list of technical cybersecurity electives, the list of nontechnical cybersecurity electives, or from any CIS/CSE courses at the 600-level or higher. At most 3 credits of nontechnical cybersecurity electives are permitted.

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 or else matriculation may be terminated.

Data Science, MS

Contact

Dr. Jae C. Oh, Professor and Chair

eecsadmissions@syr.edu

Faculty

EECS Department Faculty: Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Oldler, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, Edmund Yu, Reza Zafarani

Math Department Faculty: Uday Banerjee, Pinyuen Chen, Dan Coman, J. Theodore Cox, Steven Diaz, Jack E. Graver, Duane Graysay, Philip S. Griffin, 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, Minghao Rostami, Lixin Shen, John Ucci, Gregory Verchota, Andrew Vogel, William Volterman, Yi (Grace) Wang, Stephan Wehrli, William Wylie, Yuan Yuan, Dan Zacharia.

Description

The demand for large-scale data analytics is rising rapidly in various areas of the economy, including the critical infrastructure, healthcare, and IT sectors. The M.S. program in Data Science has been designed to prepare graduates with the data science background to meet the growing need. Because data science is a new and rapidly changing field, it requires professionals who have the technical depth to develop new and statistically sound techniques in cases where existing methods fail. These professional also

require sufficient mathematical understanding to use and adapt the new methods that emerge in this dynamic field.

The M.S. in Data Science is a 30-credit program that comprises 15 credits of core coursework, 12 credits of data science electives, and 3 credits of a capstone project. The core ensures that all graduates of the program have the necessary skills to perform largescale data analytics. The electives allow students to augment their data science knowledge in ways that meet their individual goals and objectives; some elective courses focus on applications of data science, while others provide technical knowledge that increases their ability to adapt existing data analytic technique to novel big data challenges. Students apply their skills and knowledge, gained throughout the program, to develop and carry out a data science project in the area of their interest (e.g., business, economics, bioinformatics) using real-world data.

Admission

Successful applicants will have completed a B.S. degree with a 3.0 or better grade point average (GPA) and have successfully completed prior coursework in:

- Introduction to programming
- Multivariate calculus
- Elementary statistics (e.g., MAT 222 or CIS 321 or MAT 421)

The course work requirements can be waived for applicants who demonstrate equivalent knowledge obtained through work or other experience. The admissions committee evaluates the overall academic record of an applicant and uses the following guidelines (GRE scores refer to the New GRE Score System):

- GRE Verbal score of 150 or better
- GRE Quantitative score of 155 or better
- GRE Analytical Writing score of 3.5 or better
- For international students, a TOEFL computer-based score of 223 (Internet-based score 85; paper-based score 563) or better.

Financial Support

Some, but not all, students may receive merit-based tuition scholarships.

Degree Awarded

Master of Science in Data Science - The M.S. in Data Science is offered both residentially and online. On-campus courses are delivered through the traditional semester format: students take courses in the fall and spring semesters; some courses may also be offered during the summer. Online courses are delivered with four starts a year: courses run 11 weeks, with the required contact hours achieved through a mix of asynchronous and synchronous course interaction.

All students must complete 30 credits of coursework, comprising 15 credits of core courses, 12 credits of electives, and a 3-credit

capstone course, as described below.

Student Learning Outcomes

Graduates of the MS in Data Science program will be able to do the following:

- Systematically collect data to perform a specific task
- Store, manage, and represent data in a manner that is amenable to data mining
- Describe the nature of the data they have and analyze specific characteristics of the data to develop insight into what the data means
- Use techniques such as classification, clustering, and regression to provide statistically valid answers to questions about the inherent nature of the data

Program Requirements

The M.S. in Data Science is a 30-credit program that comprises 15 credits of core coursework, 12 credits of data science electives, and 3 credits of a capstone project.

Core Courses (15 credits)

- MAT 503 - Matrix Methods for Data Science 3 credit(s) or
- MAT 532 - Applied Linear Algebra 3 credit(s)
- MAT 523 - Statistical Methods for Data Science 3 credit(s)
- CIS 563 - Introduction to Data Science 3 credit(s)
- CSE 581 - Introduction to Database Management Systems 3 credit(s)
- MAT 695 - Fundamentals of Data Science 3 credit(s)

Note: MAT 503 will be offered online only. Students in the residential program will need to take MAT 532 (Applied Linear Algebra) to satisfy this requirement.

Elective Courses (12 credits)

The Data Science Program Committee will maintain a list of approved Data Science electives. This list will be kept online in a publically viewable location and updated by May 1 each year.

For AY 2017-2018, this list will include at least the following courses:

- CIS 675 - Design and Analysis of Algorithms 3 credit(s)
- CIS 787 - Analytical Data Mining 3 credit(s)
- CSE 682 - Software Engineering 3 credit(s)
- CIS 668 - Natural Language Processing 3 credit(s) /IST 664: Natural Language Processing
- IST 719 - Information Visualization 3 credit(s)
- MAS 777 - Time Series Modeling and Analysis 3 credit(s)

Data Science Capstone (3 Credits)

CIS 669: Data Science Capstone (Fall 2018)

Total Credits Required: 30

Transfer Credits

Up to nine (9) credits may be transferred from other schools, upon evaluation of details by the program coordinator.

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 or else matriculation may be terminated.

Electrical Engineering (Distance Format), MS

Program Director

Qinru Qis, 315-443-2652; eecsadmissions@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Ciceki, Nihan Cicekl, 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, Can Isik, Mina June, Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park, McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, 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
- Power Engineering

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
Electrical Power

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 may 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

- Ability to apply advanced electrical engineering theory and methods to identify, formulate and solve advanced engineering problems..
- Ability to analyze and design an electrical system with constraints and specifications that consider other design factors such as societal, economic, and environmental influences.
- Proficiency in modern engineering tools to simulate and/or conduct experiments on complex electrical systems.
- Ability to present advanced technical contents effectively through various media.
- Ability to apply the deeper understanding gained from electives into focus area.

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.

Degree

The M.S. in Electrical Engineering requires

students to complete 30 total credits including 12 credits of core courses and 18 credits of electives.

Transfer Credit

A maximum of 9 transfer credits for students admitted to the online programs. 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 credited towards the M.S. degree, and a minimum cumulative total GPA of 2.8 in all graduate courses taken at Syracuse University.

Total Credits: 30

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, 3 700 or upper level courses and a choice of 3 electives.

Electrical Engineering, MS

Program Director

Qinru Qiu, 315-443-2652; eecsadmissions@syr.edu.

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung, Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, Won Kyung Park, McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, Edmund Yu, Reza Zafarani

Student Learning Outcomes

1. Ability to apply advanced electrical engineering theory and methods to identify, formulate and solve advanced engineering problems.

2. Ability to analyze and design an electrical system with constraints and specifications that consider other design factors such as societal, economic, and environmental influences

3. Proficiency in modern engineering tools to simulate and/or conduct experiments on complex electrical systems

4. Ability to present advanced technical contents effectively through various media.

5. Ability to apply the deeper understanding gained from electives into focus area.

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)

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 514 - Electric Power 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

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

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 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.

Student Learning Outcomes

1. Ability to apply advanced electrical engineering theory and methods to identify, formulate and solve advanced engineering problems.
2. Ability to analyze and design an electrical system with constraints and specifications that consider other design factors such as societal, economic, and environmental influences
3. Proficiency in modern engineering tools to simulate and/or conduct experiments on complex electrical systems
4. Ability to present advanced technical contents effectively through various media.

5. Ability to apply the deeper understanding gained from electives into focus area.

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 engineering 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.

At least 18 credit-hours (6 courses) must be at 600 level or above. The program consists of a set of 5 required core courses (15 credits), a set of 4 courses (12 credits) in engineering management specialization (three of the four courses must be from the same track), and 2 elective courses (6 credits) in engineering and computer science.

Completion of the program with less than 24 semester credits in engineering does not lead to credit towards licensure.

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.

Student Learning Outcomes

1. Use the principles of advanced mathematics to identify, analyze and solve engineering management problems.
2. Apply appropriate economics and project management techniques to support more informed decisions.
3. Apply knowledge and skills in the management of technology.
4. Communicate advanced technical and managerial concepts effectively.
5. Advance existing technical or scientific skills.

Core Requirements

- ECS 526 - Statistics for Engineers 3 credit(s)
- MAE 548 - Engineering Economics and Technology Valuation 3 credit(s)
- ECS 630 - Simulation and Data Analytics 3 credit(s)
- SCM 656 - Project Management 3 credit(s)
- EEE 620 - Foundations of Entrepreneurship 3 credit(s)

Management Specialization Tracks

Student has to select 3 courses (9 credits) from one of the following 4 tracks, plus 1 course (3 credits) from any of the 4 tracks. (These tracks are regularly reviewed and may be revised by the program committee).

Track 1: Operations

- CIE 601 - Construction Engineering and Project Management 3 credit(s)
- MFE 634 - Productivity and Quality Engineering 3 credit(s)
- MFE 654 - Production System Design and Control 3 credit(s)
- SCM 721 - Supply Chain Systems 3 credit(s)
- SCM 755 - Lean Six Sigma 3 credit(s)

Track 2: Entrepreneurship

- ECS 511 - Sustainable Manufacturing 3 credit(s)
- EEE 621 - Corporate Entrepreneurship 3 credit(s)
- EEE 625 - Venture Capital 3 credit(s)
- LAW 726 - Intellectual Property 3 credit(s)
- MBC 603 - Creating Customer Value 1.5 credit(s) or
- MBC 604 - Managing the Marketing Mix 1.5 credit(s)

Track 3: Informatics

- CIS 787 - Analytical Data Mining 3 credit(s)
- CSE 581 - Introduction to Database Management Systems 3 credit(s)
- CSE 682 - Software Engineering 3 credit(s)
- SCM 651 - Business Analytics 3 credit(s)

Track 4: Sustainability

- CIE 636 - Plstc Des/Steel Structures 3 credit(s)
- CIE 663 - Introduction to Sustainable Engineering 3 credit(s)
- ECS 511 - Sustainable Manufacturing 3 credit(s)
- ECS 650 - Managing Sustainability: Purpose, Principles, and Practice 3 credit(s)
- ECS 651 - Strategic Management and the Natural Environment 3 credit(s)

Environmental Engineering Science, M.S.

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

Faculty

David G. Chandler, Ruth Chen, Laura E. Condon, Andria Costello Staniec, Cliff I. Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Christa Kelleher, Laura J. Steinberg, Svetoslava Todorova, Teng Zeng

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 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 SUNY-ESF. Certificates of Advanced Studies (CAS) programs are available in Environmental Health and Sustainable Enterprise.

Admission Requirements

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

At least a 3.0 in a 4.0 rating system or equivalent in B.S. program coursework

Satisfactory scores on all required graduate entrance examinations. A TOEFL score of 80 or higher is required for international students

Departmental approval

Student Learning Outcomes

1. Formulate and solve problems in the fundamentals of Environmental Engineering Science
2. Formulate and solve specialized problems in advanced fundamentals
3. Use computer programs as well as codes and standards to do analysis and design
4. Use productivity tools in solving engineering problems
5. Solve engineering problems in evolving complementary specialties

6. Do independent research and communicate findings

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
 - CIE 672 - Applied Env Microbiology
2. Elective coursework satisfying distributional requirements as specified in the Graduate Program Profile
3. Complete CIE 997 - Masters Thesis (6 credits)
4. Defense of thesis
5. Participation in the Faculty/Student Seminar Program (CIE 660)

Requirements without Thesis (30 credits)

1. Completion of:
 - CIE 671 - Environmental Chemistry and Analysis
 - CIE 672 - Applied Env Microbiology
2. Elective coursework satisfying distributional requirements as specified in the Graduate Program Profile.
3. Complete one of the following:
 - CIE 600 - Environmental Assessment (3 credits)
 - 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)

Environmental Engineering, M.S.

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

Faculty

David G. Chandler, Ruth Chen, Laura E. Condon, Andria Costello Staniec, Cliff I. Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Christa Kelleher, Laura J. Steinberg, Svetoslava Todorova, Teng Zeng

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 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 SUNY-ESF. Certificates of Advanced Studies (CAS) programs are available in Environmental Health and Sustainable Enterprise.

Admission Requirements

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.

At least a 3.0 in a 4.0 rating system or equivalent in the B.S. program coursework.

Satisfactory scores on all required graduate entrance examinations. A TOEFL score of 80 or higher is required for international students.

Departmental approval.

Student Learning Outcomes

1. Formulate and solve problems in the fundamentals of Environmental Engineering.
2. Formulate and solve specialized problems in advanced fundamentals.
3. Use computer programs as well as codes and standards to do analysis and design.
4. Use productivity tools in solving engineering problems.
5. Solve engineering problems in evolving complementary specialties.
6. Do independent research and communicate findings.

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
 - CIE 671 - Environmental Chemistry and Analysis
 - CIE 672 - Applied Env Microbiology
2. Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile.
3. Complete CIE 997 - Masters Thesis (6 credits)
4. Defense of thesis
5. Participation in the Faculty/Student Seminar Program (CIE 660)

Requirements without Thesis (30 credits)

1. Completion of:

- CIE 642 - Treatment Processes in Environmental Engineering
 - CIE 671 - Environmental Chemistry and Analysis
 - CIE 672 - Applied Env Microbiology
2. Elective coursework satisfying distributional requirements, as specified in the Graduate Program Profile.
 3. Complete one of the following:
 - CIE 600 Environmental Assessment (3 credits)
 - CIE 996 - Master's Project
 - CIE 995 - Master's Exit Paper and one additional elective course (3 credits)
 4. Participation in the Faculty/Student Seminar Program (CIE 660)

Mechanical and Aerospace Engineering, MS

Chair:

Young Bai Moon, 263 Link Hall, 315-443-4366; fax: 315-443-9099, gradinfo@syr.edu.

Faculty:

Jeongmin Ahn, Benjamin Akih-Kumgeh, Mohd Ali, Michelle Blum, Edward A. Bogucz Jr., Frederick Carranti, Hamid Dalir, Thong Dang, John F. Dannenhoffer III, Barry D. Davidson, Mark N. Glauser, Melissa Green, H. Ezzat Khalifa, Alan J. Levy, Jacques Lewalle, Shalabh Maroo, Young Bai Moon, Vadrevu R. Murthy, Michael Roppo, Utpal Roy, Amit Sanyal, Roger Schmidt, Jianshun S. Zhang, Teng 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 oversees one interdisciplinary master programs leading to the following degrees:

- Master of Science (M.S.) in Engineering Management

Admission Requirements

Master of Science (M.S.) in Mechanical and Aerospace Engineering

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.

Graduate courses can be found in the Course Catalog (<http://coursecatalog.syr.edu>), using the search engine.

M.S. Students must complete 30 credits, including a capstone project (MAE 994: 0 credits; graded as Pass/Fail), and must attend at least three (3) semesters of the MAE graduate seminars (MAE 995; 0 credits; graded as A-F, based on attendance). Out of the required 30 credits, students cannot take more than 9 credits at the 500-level. The M.S. degree in MAE offers both "general" and "concentration" options. A minimum GPA of 3.0 for coursework included in the Program of Study for the degree along with a minimum GPA of 2.8 for all credits earned must be achieved to graduate. Completion of the program with less than 24 semester credits in engineering does not lead to credit toward licensure.

Students selecting the "general" option must take three (3) required courses (MAE 675, MAE 643, and MAE 635) and four (4) elective courses from the MAE department.

Students selecting the "concentration" option must take MAE 675, four (4) courses from a chosen concentration. Available concentrations and their concentration core(s) are:

i) Thermal/Fluids

MAE 643 - Fluid Dynamics

3 elective courses in Thermal/Fluids

ii) Solids/Structure

MAE 635 - Advanced Mechanics of Materials

3 elective courses in Solids/Structure

iii) Design/Manufacturing

MFE 639 - CAD/CAM Systems, and

ECS 526 - Statistics for Engineers

2 elective courses in Design/Manufacturing

Acceptable elective courses for each concentration are available in the department.

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.

Student Learning Outcomes

1. Use the principles of advanced mathematics to identify, formulate and solve engineering problems.
2. Use the principles of advanced fluid dynamics to identify, formulate and solve engineering problems
3. Use the principle of advanced mechanics

of materials to identify, formulate and solve engineering problems

4. Use advanced techniques and modern tools necessary for the practice of mechanical and aerospace engineering

5. Communicate advanced technical contents effectively

Course Requirements

Graduate courses can be found in the Course Catalog (<http://coursecatalog.syr.edu>), using the search engine.

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.

Public Health, MPH

Cindy Paikin, Program Coordinator, paikinc@update.edu

www.upstate.edu/cnymph

Student Learning Outcomes

1. Make connections between social structure and individual experience
2. Distinguish various theoretical perspectives
3. Critically evaluate information
4. Think and write analytically
5. Can evaluate qualitative research
6. Can evaluate quantitative research
7. Be able to collect and analyze data
8. Be able to present information and write papers
9. Can explain social inequality
10. Can describe social issues
11. Can describe social policy
12. Can identify how societies operate
13. Can describe the functioning of social institutions

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 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

Doctorate

Bioengineering, PhD

Department Chair:

Radhakrishna Sureshkumar
329 Link Hall
315-443-1931; fax: 315-443-9175

Faculty

Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, Xiyuan Liu, Zhen Ma, George C. Martin, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Radhakrishna Sureshkumar, Lawrence L. Tavlarides, Pun To Yung

Adjunct/Research Faculty:

Gino Duca, Bart Farrell, Eric Finkelstein, Kent Ogden, David Quinn, Dana Radcliff, Suresh Santanam

Affiliate Faculty:

Yan-Yeung Luk, Juntao Luo, Cristina Marchetti, Liviu Moveleanu

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; jhender@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.

Student Learning Outcomes

1. Define research objectives
2. Choose and use appropriate research methods to achieve the defined objectives
3. Use appropriate methods to analyze research data and interpret the findings
4. Effectively communicate the work to its intended audiences
5. Critically analyze his or her own research work and existing scholarship in the field

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

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: 315-443-9175

Faculty

Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, Xiyuan Liu, Zhen Ma, George C. Martin, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Radhakrishna Sureshkumar, Lawrence L. Tavlarides, Pun To Yung

Adjunct/Research Faculty:

Gino Duca, Bart Farrell, Eric Finkelstein, Kent Ogden, David Quinn, Dana Radcliffe, Suresh Santanam

Affiliate Faculty:

Juntao Luo, Yan-Yeung Luk, Cristina Marchetti, Liviu Movileanu

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.

Student Learning Outcomes

1. Define research objectives and acquire the necessary skills to achieve these objectives
2. Choose and use appropriate research methods to achieve the defined objectives
3. Use appropriate methods to analyze research data and interpret the findings
4. Effectively communicate the work to its intended audiences
5. Critically analyze his or her own research work and existing scholarship in the field

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);
- 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 student's 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.

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, Ph.D.

Department Chair

Dr. Ossama "Sam" Salem, 151 Link Hall, omsalem@syr.edu, 315-443-2311

Program Director:

Dr. Dawit Negussey, 151 Link Hall, negussey@syr.edu, 315-443-2311

Faculty

Riyad S. Aboutaha, Shobha K. Bhatia, David G. Chandler, Ruth Chen, Laura E. Condon, Andria Costello Staniec, Cliff I. Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Christa Kelleher, Eric M. Lui, Dawit Negussey, Ossama "Sam" Salem, Baris Salman, Laura J Steinberg, Svetoslava Todorova, Teng Zeng

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, 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 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

B.S. in Civil Engineering or other acceptable field from an accredited institution.

M.S. degree from an accredited institution.

B+ average in M.S. program coursework.

Satisfactory grades on all required graduate entrance examinations. A TOEFL score of 80 or higher is required for international students.

Departmental approval.

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.

Student Learning Outcomes

1. Demonstrate abilities to formulate and analyze difficult engineering problems using fundamental and advanced mathematics, science and engineering tools.
2. Demonstrate abilities to conduct literature surveys, to think critically and creatively in planning and designing a research program.
3. Demonstrate abilities to conduct independent laboratory and / or field research using state of the art sensing systems and testing facilities.
4. Demonstrate abilities to understand and use specialized computer programs to model experiments, represent engineering systems and process big data inputs in research and extended monitoring programs.
5. Demonstrate abilities for documenting research procedures, organizing and archiving research results, preparing detailed reports and explaining findings; culminating in a dissertation.

Course Requirements

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.

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).

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 her/his primary subject area(s) and her/his preparation 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. 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, her/his 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 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 student should not distribute the final draft of the dissertation prior to approval by the advisor. 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 her/his 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. 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

- 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
- 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
- Natural and polymeric fibers in soil erosion mitigation
- Natural organic matter
- Non-destructive testing
- Nonlinear structural theories
- Numerical modeling
- Potable water supply
- Properties and applications of geofoms
- Renewable hydrogen production
- Resource recovery from wastewater
- 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
- Tactile sensing
- Transportation Engineering
- UAS applications
- Water quality modeling

Computer & Information Science & Engineering, PhD

Contact:

eecsadmissions@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Ciekli, Nihan Cicekli, 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, Can Isik, Mina Jung Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velpasalar, Li Wang, Yanzhi Wang, Edmund Yu, Reza Zafarani

Student Learning Outcomes

1. Demonstrate broad knowledge of the field of computer and information science & engineering
2. Critically analyze and assess published research
3. Conduct original research on a significant problem in computing
4. Proficiency in presenting technical results in talks to different types of audiences
5. Competence in effectively communicating technical results in writing

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:

- 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.

- 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:

The list of topics in which students must demonstrate competencies by completing coursework.

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;

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: www.applyweb.com/cgi-bin/app?s=syr.

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.

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 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 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 whether 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.

Electrical & Computer Engineering, PhD

Contact

eecsadmissions@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Ming Jung, Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoong Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Vellipasalar, Li Wang, Yanzhi Wang, Edmund Yu, Reza Zafarani

Student Learning Outcomes

1. An ability to acquire necessary skills to conduct independent scholarly work.
2. An ability to analyze and interpret research data using appropriate methods.
3. An ability to define research objectives clearly.
4. An ability to select appropriate methodology to achieve the research objectives and goals.
5. An ability to communicate the research results to diverse audiences.

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:

- 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.

- 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 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:

The list of topics in which students must demonstrate competencies by completing coursework.

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: www.applyweb.com/cgi-bin/app?s=syr.

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.

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 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 and 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, electric vehicle integration into power grid.

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/. 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

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.

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

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 Quatronix 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

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

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.

Smart Grid Laboratory

The laboratory has been designed and equipped by latest technologies, not only for measurements, monitoring, and control of particular components in power electronics and electromechanical devices, but also for the development of complex and advanced smart grid and smart home ideas. The Smart Grid lab section includes a scaled down entire microgrid power system with renewable energy sources, adjustable transmission lines, reconfigurable distribution feeders and programmable loads. Synchronphasor measurement units have been installed to provide our students with hands-on experience and data for further research.

Mechanical and Aerospace Engineering, PhD

Young Bai Moon, 263 Link Hall, 315-443-4366; fax: 315-443-9099, gradinfo@syr.edu.

Faculty:

Jeongmin Ahn, Benjamin Akih-Kumgeh, Mohd Y. Ali, Michelle Blum, Edward A. Bogucz Jr., Frederick Carranti, Hamid Dalir, Thong Dang, John F. Dannenhoffer III, Barry D. Davidson, Mark N. Glauser, Melissa Green, H. Ezzat Khalifa, Alan J. Levy, Jacques Lewalle, Shalabh Maroo, Young Bai Moon, Vadrevu R. Murthy, Utpal Roy, Amit Sanyal, Roger Schmidt, Jianshun S. Zhang, Teng 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.

Student Learning Outcomes

1. Define the goals of scholarly work clearly
2. Prepare adequately to conduct independent scholarly work
3. Select methods appropriate to the goals and apply these methods effectively
4. Achieve the goals independently and contribute substantially to the fields of Mechanical and Aerospace Engineering

5. Communicate scholarly work effectively

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) and a Ph.D. dissertation (of 0 credits). Of the 18 credits of course work beyond the MS degree, 3 credits can be MAE 990 Independent Study. Under special circumstances, a student may petition for an additional 3 credits of MAE 990 Independent Study. Students interested in MAE 990 Independent Study must work with the Faculty Sponsor to fill out form "Proposal for Independent Study Course", and this form must be approved by the Department Chair. A GPA of 3.33 or higher 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 as A-F, based on attendance). Graduate courses can be found in the Course Catalog (<http://coursecatalog.syr.edu>), using the search engine.

1 Of the 48-credit course work, 30 credits should be equivalent to the M.S. in Mechanical and Aerospace Engineering degree requirements.

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. 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 fourth semester of their graduate study. Students who enter 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 two semesters of their first registration in the program. The oral component of the qualifying examination must be taken no later than one year after passing the written examination. As a pre-requisite to the oral component of the qualifying examination, students who enter the MAE graduate program with a B.S. degree must complete a minimum of 30 credits after B.S. at the time of taking the oral component of the qualifying exam.

The written component of the qualifying examination will test the student's fundamental knowledge needed for doctoral study, in Mathematics, plus any two of the following topics: Fluid Dynamics, Solid Mechanics, Heat Transfer, Thermodynamics, 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.

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 consultation with the adviser, an eligible Ph.D. student must formally apply to take the qualifying examination by notifying the chair of the Graduate Affairs Committee on or before September 30 if the student wishes to take the written examination in the Fall Semester of the same year, and on or before January 31 if the student wishes to take the written examination in the Spring Semester of the same year. In the notification letter, the student should specify his/her field of study/interest, the topics in which s/he wishes to be examined, and include a copy of his/her transcript showing the current GPA. The notification letter must be approved by the adviser.

The Graduate Affairs Committee informs the student after the qualifying examination has been completed whether s/he has passed. In the event of failure, the student must petition the Graduate Affairs Committee within two weeks of failure notification to retake the written examinations once more in the following semester. If approved, the student can retake the failed topics in the second attempt, but is not allowed to change her/his topics from the first attempt. No student will be allowed to retake the written and oral components of the qualifying examination more than once. Failure to pass the examination in a timely fashion will result in dismissal from the Ph.D. program.

The student's adviser in consultation with the student will suggest a committee of oral examination for the Graduate Affairs Committee's approval. The oral examination committee should consist of 3 to 5 members with a majority of its 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.

* The current rule approved by the MAE Faculty on April 18, 2014, applies to students who enter the Ph.D. program in Fall 2014 and after.

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.

Combined Degree

Aerospace Engineering, BS/Mechanical and Aerospace Engineering, MS

Contacts:

John F. Dannenhoffer, III, AE Program Director

315-443-3340

jfdannen@syr.edu

Young B. Moon, MAE Interim Department Chair

315-443-2341

ybmoon@syr.edu

Thong Dang, Graduate Program Director

263 Link Hall

443-4311

tg dang@syr.edu

Faculty

Jeongmin Ahn, Benjamin Akih-Kumgeh, Mohd Yousuf Ali, Michelle Blum, Edward Bogucz, Frederick Carranti, Hamid Dalir, Thong Dang, John Dannenhoffer, Barry Davidson, Mark Glauser, Melissa Green, H. Ezzat Khalifa, Alan Levy, Jacques Lewalle, Shalabh Maroo, Young Moon, Vadrevu Murthy, Michael Roppo, Utpal Roy, Amit Sanyal, Jianshun Zhang, Teng Zhang

Program Description

The combined degree is for students to complete the Bachelor of Science in Aerospace Engineering and the Masters of Science in Mechanical & Aerospace Engineering 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.

Admission

Students must be currently enrolled in the BS Aerospace 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.

BSAE Curriculum

Students should fulfill all BS/AE requirements

MSMAE Curriculum

Course Requirements

Graduate courses can be found in the Course Catalog (<http://coursecatalog.syr.edu>), using the search engine.

M.S. students must complete 30 credits, including a capstone project (MAE 994: 0 credits; graded as Pass/Fail), and must attend at least three (3) semesters of the MAE graduate seminars (MAE 995: 0 credits; graded as A-F, based on attendance). Out of the required 30 credits, students cannot take more than 9 credits at the 500-level. The M.S. degree in MAE offers both "general" and "concentration" options. A minimum GPA of 3.0 for coursework included in the Program of Study for the degree along with a minimum GPA of 2.8 for all credits earned must be achieved to graduate. Completion of the program with less than 24 semester credits in engineering does not lead to credit toward licensure.

Students selecting the "general" option must take three (3) required courses (MAE 675, MAE 643, and MAE 635) and four (4) elective courses from the MAE department.

Students selecting a "concentration" option must take MAE 675, four (4) courses from a chosen concentration. Available concentrations and their concentration core(s) are:

i) Thermal/Fluids

MAE 643 - Fluid Dynamics

3 elective courses in Thermal/Fluids

ii) Solids/Structure

MAE 635 - Advanced Mechanics of Materials

3 elective courses in Solids/Structure

iii) Design/Manufacturing

MFE 639 - CAD/CAM Systems

ECS 526 - Statistics for Engineers

2 elective courses in Design/Manufacturing

Acceptable elective courses for each concentration are available in the department.

Graduation Requirements

The exit requirement for the M.S. degree is MAE 994 - Capstone Project. The student should register for MAE 994 in his/her last semester.

The student will review papers or reports in the technical literature related to the student's field of interest. Specific requirements will be communicated to the student at the time of registration for MAE 994. The student will prepare an oral presentation summarizing the technical content of the documents reviewed, and present his/her findings before a faculty committee. The specific format of the PowerPoint presentation can be obtained from the graduate secretary. A hard copy of the presentation, signed by the student's adviser, must be submitted to the MAE Graduate Office. The student will then make their oral presentation to the committee of MAE faculty who will determine whether the student has passed or failed.

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

College of Engineering and Computer Science

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; 315-443-9739; jhhender@syr.edu

Pun To Yung, Undergraduate Program Director
361 Link Hall; 315-443-4848; ptung@syr.edu

Faculty

Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, Xiyuan Liu, Zhen Ma, George C. Martin, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Radhakrishna Sureshkumar, Lawrence L. Tavlarides, Pun To Yung

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; 315-443-4409; dren@syr.edu
Katie D. Cadwell, Chemical Engineering Undergraduate Program Director
341 Link Hall; 315-443-4756; kdcadwel@syr.edu

Faculty

Jesse Q. Bond, Katie D. Cadwell, Ruth Chen, Julie M. Hasenwinkel, James H. Henderson, Ian Hosein, Xiyuan Liu, Zhen Ma, George C. Martin, Shikha Nangia, Dacheng Ren, Ashok Sangani, Pranav Soman, Radhakrishna Sureshkumar, Lawrence L. Tavlarides, Pun To Yung

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 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 127-128 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

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, Graduate Program Director, eecsadmissions@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung, Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, Wonkyung Park, McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, 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: 154

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 130 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

Contact

Susan Older, 315-443-2652; suo@ecs.syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung, Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, Won Kyung Park, McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, 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. 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:

Qinru Qiu

315-443-2652

eecsadmissions@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Ming Jung, Mehmet, Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Park McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Jeffrey Saltz, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, 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, 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 129-130 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

College of Engineering and Computer Science

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 in Computer Science is a combined degrees that 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).

Mechanical Engineering, BS/Mechanical and Aerospace Engineering, MS

Contact

Young B. Moon, Mechanical & Aerospace Engineering Department Chair

263 Link Hall

315-443-4366

ybmoon@syr.edu

Thong Dang, Graduate Program Director

462 Link Hall

443-4311

qdang@syr.edu

Michelle Blum, Mechanical Engineering Program Director

239 Link Hall

443-2840

mdblum@syr.edu

Faculty

Jeongmin Ahn, Benjamin Akih-Kumgeh, Mohd Ali, Michelle Blum, Edward Bogucz, Frederick Carranti, Thong Dang, John Dannenhoffer, Barry Davidson, Mark Glauser, Melissa Green, H. Ezzat Khalifa, Alan Levy, Jacques Lewalle, Young Moon, Shalabh Maroo, Vadrevu Murthy, Utpal Roy, Amit Sanyal, Roger Schmidt, Teng Zang, Jianshun Zhang

Program Description

The combined degree is for students to complete the Bachelor of Science in Mechanical Engineering and the Masters of Science in Mechanical & Aerospace Engineering 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.

Admission

Students must be currently enrolled in the BS Mechanical 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.

BSME Curriculum

First Year-Fall Semester

MAT 295 - Calculus I

CHE 106 - General Chemistry Lecture 1

CHE 107 - General Chemistry Laboratory I

ECS 101 - Introduction to Engineering and Computer Science

WRT 105 - Studio 1: Practices of Academic

Writing

ECN 203 - Economic Ideas and Issues

First Year-Spring Semester

MAT 296 - Calculus II

PHY 211 - General Physics I

PHY 221 - General Physics Laboratory I

ECS 104 - Engineering Computational Tools

Elective 1 (3 credits)

WRT 205 - Studio 2: Critical Research and Writing

Second Year-Fall Semester

ECS 326 - Engineering Materials, Properties, and Processing

MAT 397 - Calculus III

PHY 212 - General Physics II

PHY 222 - General Physics Laboratory II

ECS 221 - Statics

Elective 2 (3 credits)

Second Year-Spring Semester

MAT 485 - Differential Equations and Matrix Algebra for Engineers

ECS 222 - Dynamics

ECS 325 - Mechanics of Solids

MAE 251 - Thermodynamics

MAE 284 - Introduction to CAD

Third Year-Fall Semester

ECS 326 - Engineering Materials, Properties, and Processing

MAE 315 - Mechanical and Aerospace Engineering Laboratory

MAE 341 - Fluid Mechanics

MAE 312 - Engineering Analysis

MAE 333 - Data Analysis for Engineers

ELE 231 - Electrical Engineering Fundamentals I

ELE 291 - Electrical Engineering Laboratory I

Third Year-Spring Semester

MAE 321 - Dynamics of Mechanical Systems

MAE 355 - Fundamentals of Heat Transfer

MEE 332 - Introduction to Machine Design

MAE 322 - Control Systems for MAE

Elective 3 (3 credits)

Fourth Year-Fall Semester

MEE 331 - Manufacturing Processes

MEE 416 - Mechanical Engineering Laboratory

MEE 471 - Design Practice

Elective 4 (3 credits) *Must be either MAE 430, MAE 571, or MAE 573

Elective 5 (3 credits)

Elective 6 (3 credits)

Fourth Year-Spring Semester

MEE 471 - Design Practice

MEE 472 - Synthesis of Mech Systems

WRT 205 - Studio 2: Critical Research and Writing

Elective 7 (3 credits)

Elective 8 (3 credits)

Total Credits Required: 128

MSMAE Curriculum

Course Requirements

Graduate courses can be found in the Course Catalog (<http://coursecatalog.syr.edu>), using the search engine.

M.S. students must complete 30 credits, including a capstone project (MAE 994: 0 credits; graded as Pass/Fail), and must attend at least three (3) semesters of the MAE graduate seminars (MAE 995: 0 credits; graded as A-F, based on attendance). Out of the required 30 credits, students cannot take more than 9 credits at the 500-level. The M.S. degree in MAE offers both "general" and "concentration" options. A minimum GPA of 3.0 for coursework included in the Program of Study for the degree along with a minimum GPA of 2.8 for all credits earned must be achieved to graduate. Completion of the program with less than 24 semester credits in engineering does not lead to credit toward licensure.

Students selecting the "general" option must take three (3) required courses (MAE 675, MAE 643, and MAE 635) and four (4) elective courses from the MAE department.

Students selecting a "concentration" option must take MAE 675, four (4) courses from a chosen concentration. Available concentrations and their concentration core(s) are:

i) Thermal/Fluids

MAE 643 - Fluid Dynamics

3 elective courses in Thermal/Fluids

ii) Solids/Structure

MAE 635 - Advanced Mechanics of Materials

3 elective courses in Solids/Structure

iii) Design/Manufacturing

MFE 639 - CAD/CAM Systems

ECS 526 - Statistics for Engineers

2 elective courses in Design/Manufacturing

Acceptable elective courses for each concentration are available in the department.

Graduation Requirements

The exit requirement for the M.S. degree is MAE 994 - Capstone Project. The student should

register for MAE 994 in his/her last semester. The student will review papers or reports in the technical literature related to the student's field of interest. Specific requirements will be communicated to the student at the time of registration for MAE 994. The student will prepare an oral presentation summarizing the technical content of the documents reviewed, and present his/her findings before a faculty committee. The specific format of the PowerPoint presentation can be obtained from the graduate secretary. A hard copy of the presentation, signed by the student's adviser, must be submitted to the MAE Graduate Office. The student will then make their oral presentation to the committee of MAE faculty who will determine whether the student has passed or failed.

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:

Jae C. Oh, Professor and Chair, eecsadmissions@syr.edu

4-177 Center for Science and Technology
315-443-2652

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:

The ability to identify and analyze vulnerabilities in systems, to assess the risks faced by systems, and to develop countermeasures to remedy risks;

The ability to develop systems that are secure;

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

Environmental Health, CAS

Department Chair:

Dr. Ossama "Sam" Salem, 151 Link Hall, 315-443-2311, omsalem@syr.edu

Contact:

Dr. Cliff I. Davidson, 151 Link Hall, 315-443-2311, davidson@syr.edu

Faculty:

David G. Chandler, Ruth Chen, Laura E. Condon, Andria Costello Staniec, Cliff I. Davidson, Charles T. Driscoll Jr., Chris E. Johnson, Christa Kelleher, Laura J. Steinberg, Svetoslava Todorova, Teng Zeng

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).

Student Learning Outcomes

1. Identify human health risks associated with air, water and soil contamination.
2. Formulate strategies for engineering solutions to major environmental health problems.
3. Articulate the effects of key pollutants on various human organs.
4. Use quantitative methods to estimate environmental and/or health risks associated with pollution.

Requirements:

To complete the certificate program, students must take four three-credit classes. Two classes are required:

CIE 554 - Principles Environmental Toxicology (3 credits)

CIE 674 - Environmental Health Engineering (3 credits)

Additional Requirements:

In addition, students must choose two courses from the following:

CIE 529 - Risk Analysis in Civil Engineering (3 credits)

CIE 555 - Hazardous Waste Management (3 credits)

CIE 764 - Industrial Hygiene Engineering (3 credits)

Total Credits: 12

Total 12 credits leading to a Certificate of Advanced Study in Environmental Health

Microwave Engineering, CAS

Contact:

eecsadmissions@syr.edu

Faculty

Howard A. Blair, Tomislav Bujanovic, Ilyas Cicekli, Nihan Cicekli, 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, Can Isik, Mina Jung Mehmet Kaya, Andrew Chung-Yeung Lee, Jay Kyoon Lee, Duane L. Marcy, Patrick McSweeney, WonKyung Parl McSweeney, Chilukuri K. Mohan, Jae C. Oh, Susan Older, Vir Phoha, Qinru Qiu, James S. Royer, Tapan K. Sarkar, Q. Wang Song, Sucheta Soundarajan, Jian Tang, Yuzhe (Richard) Tang, William C. Tetley, Pramod K. Varshney, Senem Velipasalar, Li Wang, Yanzhi Wang, 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:

Mastery of the underlying principles of microwave theory.

Use of microwave theory concepts to design microwave devices satisfying a given set of specifications and to predict their behaviors.

Use the latest software tools to simulate microwave circuit behavior.

Use microwave theory concept and CAD software to optimize microwave circuits to meet given specifications.

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.

Student Learning Outcomes

1. Mastery of the underlying principles of microwave theory
2. An ability to use the microwave theory to design devices satisfying a given set of specifications and to predict their behaviors.
3. An ability to use the latest computer aided design simulation tools to model and characterize microwave circuits.
4. Mastery of the use of microwave equipment such as network analyzer, spectrum analyzer, and anechoic chamber.

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 Master'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

Contact:

Margaret Lane Assistant Director, Executive Education

219 Maxwell Hall 315-443-8708 melane02@maxwell.syr.edu

Dr. Ossama "Sam" Salem

Department Chair of Civil and Environmental Engineering Yabroudi Chair Professor of Sustainable Civil Infrastructures 151 Link Hall, 315-443-2311 omsalem@syr.edu

Program Description

The College of Engineering and Computer Science (ECS), in collaboration with the Department of Public Administration and International Affairs (PA IA) 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 ongoing 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.

Student Learning Outcomes

1. Explain and assess leadership and managerial theories, skills, and competencies
2. Demonstrate the ability to prepare and analyze flexible budgets
3. Develop skills in infrastructure planning
4. Become responsible, thoughtful, and qualified leaders in the area of infrastructure asset management
5. Select and evaluate performance measures for public infrastructure
6. Identify principal engineering design considerations for major infrastructure projects
7. Assess the major environmental and social impacts of infrastructure projects

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 PAIA 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) Executive Education Seminar: Managerial Leadership
- PAI 734 - Public Budgeting 3 credit(s) or
- 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 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

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 - Strctral 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/ Aerospce/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 Dymncls 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

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 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 673 - Biomanufacturing

College of Engineering and Computer Science
3 credit(s)
Crosslisted with: CEN 673
Double Numbered with: BEN 473
Students learn the governing principles of conventional and advanced manufacturing techniques, which are adapted/modified to engineer living tissues/organs, biomedical products and test-platforms for investigating fundamental cell biology. Extra work required for grad students.
PREREQ: BEN 364 OR BEN 664

BEN 674 - Medical Image Processing & Analysis

College of Engineering and Computer Science
3 credit(s) At least 1x fall or spring
Double Numbered with: BEN 474

Introductory medical image processing and analysis. An open source software that has been developed for this purpose will be used. Additional work required of graduate students.

BEN 687 - Advanced Bioengineering Design

College of Engineering and Computer Science
3 credit(s) At least 1x fall or spring
Bioengineering solution development experience. Team development of a bioengineering innovation. Brainstorm, design, iterate and test hypotheses. Lecture and experiential learning. Hands on concept development and evaluation, bioengineering industry exposure, visual management, oral, and poster presentations.

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 for oxygen transfer and control. Introduction to separation processes in biochemical engineering.
PREREQ: CHE 275

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

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-Stokes equations; energy, Bernoulli's equation; potential flows; Stokes flows; boundary layers; flow separation; other applications.

PREREQ: MAE 341 OR CEN 333

CEN 651 - Molecular and Statistical Thermodynamics

College of Engineering and Computer Science

3 credit(s) Upon sufficient interest

Double Numbered with: CEN 451

Classical and molecular thermodynamics in chemical equilibrium, with applications. Emphasis on concepts of statistical mechanics and correlation with properties of gases and condensed matter. Additional work required of graduate students.

CEN 655 - Materials for Energy Systems

College of Engineering and Computer Science

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

Double Numbered with: CEN 455

Materials related to energy technologies and existing energy resources. Topics include: geologic fuels; photovoltaics; wind energy;

thermoelectrics; electrical energy storage; hydrogen production, storage, and use; solid-state lighting; nuclear energy. Additional work required of graduate students

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 673 - Biomanufacturing

College of Engineering and Computer Science

3 credit(s)

Crosslisted with: BEN 673

Double Numbered with: CEN 473

Students learn the governing principles of conventional and advanced manufacturing techniques, which are adapted/modified to engineer living tissues/organs, biomedical products and test-platforms for investigating

fundamental cell biology. Extra work required for grad students.

PREREQ: BEN 364 OR BEN 664

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 687 - Advanced Chemical Engineering Design

College of Engineering and Computer Science

3 credit(s)

Chemical Engineering Masters Project, to be completed by each student as an individual advanced design project, involving a chemical process synthesis. Students are expected to apply mathematical and engineering concepts to complete the design calculations.

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 Anlyns 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. 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 Geofam

College of Engineering and Computer Science

3 credit(s) Upon sufficient interest

Introduction to geofam 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 Envrn 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
Aerodynamics, performance, control, and electrical aspects wind turbines.
PREREQ: MAE 341

CIE 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

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 - Classical and Matrix Structural Analysis

College of Engineering and Computer Science
3 credit(s) Upon sufficient interest
Analysis of cables and arches using classical method. Linear and nonlinear analyses of trusses and frames using matrix method. Modeling and analysis of special structures.

CIE 632 - Structural Dynamics and Earthquake Engineering

College of Engineering and Computer Science
3 credit(s) Even Academic Yr e.g. 2004-5
Dynamic response of single- and multi-degree-of-freedom structures. Time domain and frequency domain analyses. Linear and nonlinear systems.

Applications to earthquake engineering. Blast loading and soil-structure interaction effects. 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 Concrtr 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 - Building 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 hyghothermal 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 - Biologicl 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.

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 Procss/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.

CIE 789 - Special Investigtns/ 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 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 563 - Introduction to Data Science

College of Engineering and Computer Science
3 credit(s) At least 1x fall or spring
Fundamentals of the knowledge discovery and data mining process. Basics of supervised and unsupervised learning. Applications (recommendation and collaborative filtering) and computational tools for carrying out predictive/descriptive modeling. Additional work required for graduate students.

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 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. 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

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 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 OR 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.

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

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
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

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 OR 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

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

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 Engineerin

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 555 - Virtual Design Studio for Green Building Systems (VDS-GBS)

College of Engineering and Computer Science
3 credit(s) At least 1x fall or spring
Integrative design methodology; Interactions between form, structure, and flows of energy & mass, and their impacts on building performance; Computer simulation tools for performance-based design. Exploration of green building design and technology through case studies

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, 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: (ECS 650 OR BUA 650) AND (ECS 651 OR BUA 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.

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 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 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.
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

MAE 555 - Fundamentals of Nano-Science & Nano-Engineering

College of Engineering and Computer Science

3 credit(s) At least 1 fall or spring

Definition of nano-, micro- and macro- scales.

Overview of nanotechnology. Molecular and surface forces at the nanoscale. Atomistic definitions of continuum properties. Molecular Simulations. Principles of nanofabrication.

Characterization of nanomaterials. Additional paper for graduate students.

PREREQ: PHY 212 AND MAT 485

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 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 SU academic department to assign the appropriate course level, title, and grade for the student's transcript. Repeatable

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.

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 diffusionaly 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. 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. 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.

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

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, fero, 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.3

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

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

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 departments of Human Development and Family Science; Marriage and Family Therapy, Public Health, Food Studies and Nutrition; 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:

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:

- James Byrne, Assistant 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 Public Health undergraduate program (BSPH) is accredited through the Council on Education for Public Health (CEPH). 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 addiction studies, human development and family science, food studies, global health, marriage and family therapy, nutrition science, public health, sport management and social work; while Ph.D. programs are offered in human development and family science 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

Fees

Laboratory fees are required in certain courses where specialized equipment and materials are provided. A technology fee is assessed for all Falk College majors and minors, and all non-Falk students who take a Falk College course. Complete breakdown for Falk College Fees may be found in the annual Tuition Fees and Related Policies Bulletin.

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 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 are devoted 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.

Our students are uniquely advantaged by the facilities in the Falk Complex where they learn and study. The Nutrition Assessment, Consultation and Education (ACE) Center offers a hands-on learning laboratory to prepare students with traditional and emerging professional competencies critical to nutrition practice. In addition to the ACE Center, our food studies and nutrition faculty and professional chefs teach in state-of-the-art food labs. The Susan R. Klenk Learning Café and Kitchens provide a hands-on learning laboratory to prepare students with traditional and emerging professional competencies for careers in food, nutrition, dietetics, and public health. The facility includes an experimental food lab kitchen, commercial kitchen, baking nook and café. A video camera system allows faculty and chef instructors to broadcast classes, food demonstrations and seminars from Falk College to anywhere on campus and across the country. The sport management program enjoys primary use of a state-of-the-art Daktronics computer lab, the only facility like it in the country. Undergraduate and graduate programs integrate learning with activities at the Carrier Dome as Syracuse University is the only institution in the nation with a sport facility of its size on the main campus.

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. The Bernice M. Wright School and its programs embrace 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.

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.

Sport and Human Development Institute

The Sport and Human Development Institute explores the intersection of sport with human development, social change and social inclusion. Created in partnership with the U.S. Fund for UNICEF, the institute aims to provide professional education and learning opportunities for students while supporting interdisciplinary, sport-focused research to advance understanding and application of sport in this developing discipline.

The institute collects and disseminates important research findings and shares best practices among leaders, researchers, policy makers, and practitioners who influence sport-for-development initiatives. It also provides exposure, experience, and networking for our students interested in professions and non-profit entities that incorporate sport as a tool for engagement.

Human Development and Family Science

Department of Human Development and Family Science

Ambika Krishnakumar, 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, Matthew Mulvaney, Kamala Ramadoss, Rachel Razza, Jaipaul L. Roopnarine, Merril Silverstein

Graduate

Rachel Razza, Graduate Program Director; 315-443-7377

Students enrolled in the Department of

Human Development and Family Science graduate programs (M.A., M.S., Ph.D.) receive interdisciplinary training in theory and practice that help facilitate student understanding of human development within and across diverse family and cultural settings. Faculty in the department hold advanced degrees in developmental psychology, sociology, education, and gerontology and are actively engaged in international and cross-cultural research and practice. In addition to learning about relevant theories and research, graduate students are expected to undertake national or international independent applied internships and/or research activities.

Facilities

The Department of Human Development and Family Science is located on the first floor of the Falk Complex. The Complex 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, and an expanded Student Services space conducive to providing programming that helps students be successful. In addition to administrative and academic program offices and classrooms, the Falk Complex also offers students dedicated study/collaborative space, computer labs and comforts like a café and student lounge.

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.

Master's

Human Development and Family Science, MA

Contact

Rachel Razza, Graduate Director, 144 White Hall
315-443-7377, rrazza@syr.edu

Faculty

Colleen Baish Cameron, D. Bruce Carter, Joseph P. Fanelli, Eunjoo Jung, Irene Kehres, Ambika Krishnakumar, Teresa MacDonald, Matthew Mulvaney, Kamala Ramadoss, Rachel Razza, Jaipaul L. Roopnarine, Merril Silverstein

Staff

Chandice Haste-Jackson, Internship Coordinator

Arlene Johnston, Office Coordinator

Kathy Rainone, Administrative Assistant

Daria Webber, Director, Bernice M. Wright Laboratory School

Program Description

The master's degree (M.A.) in human development and family science is designed to meet the goals of individuals who seek to work in applied settings (such as service agencies, Non-Governmental Organizations (NGOs)) in which a broad background in human development and family science, administrative skills, and an appreciation for increasingly diverse client communities are important. The hallmark of our M.A. is that it offers broad training in the theory and methodology of lifespan human development and family science, training in skills critical for working in administrative or other roles in service delivery agencies, a specialized focus on topics offered through elective coursework, and the opportunity to work in an applied setting with special populations that represent growing sectors of our communities both in national and international settings.

The program requires the completion of 30 credits of coursework including a 3-credit hour project experience. Students may choose to focus their studies either on a specific focus in the issues faced by immigrant and refugee children and families or on community and youth development. All students must complete the core course requirements. Depending on their interests, students can use elective coursework to focus their studies on specific areas of human development (e.g., early childhood education, youth development, gerontology, children and families in medical settings), on the development of expertise in particular skills, or in specific areas or populations of the global community. Finally, in this students are required to complete a project either in a local context or an international (see the Graduate Manual for details).

The M.A. program prepares students to work directly with children, youth, and families in various educational, familial, or community settings in both regional and international settings. Courses and training emphasize multicultural perspectives in development and family relationships as well as diverse research methodologies and scholarship.

The degree may be completed through full- or part-time study. Students who are interested in an accelerated degree, may complete the required coursework and project during a single academic year (including summers). Students currently enrolled in the Human Development and Family Science major at Syracuse University should consult with their academic advisors about this degree.

All students must file a tentative program of study during their second semester of full-time enrollment in the program. Students transferring courses from another institution must file a

program of study prior to completing 12 credit hours at Syracuse University.

Admissions

Students seeking admission to the Department of Human Development and Family Science must meet the general admissions requirements of the Graduate School. Although no single factor determines entry to the program, competitive applicants typically have a minimum of: 1) GPA of 3.00 or higher (undergraduate and/or graduate work); 2) GRE scores of 144 Quantitative, 153 Verbal (please note, the GRE exam must be taken within the last five years). For international students whose primary language is not English, TOEFL scores of 577 (paper test) or 100 for the internet based (IBT) test are desirable.

Part-time Study

Students may pursue their graduate degree on a full or part-time basis. Students must enroll in a minimum of nine credit hours for full-time status. Students enrolled in six credit hours or less are considered part-time.

Financial Support

Limited department financial aid is available in the form of graduate assistantships and scholarship credits for students enrolled in masters and doctoral programs. Financial aid is determined based on merit.

Additional information regarding graduate financial aid can be found at <https://graduateadmissions.syr.edu/funding/>

Transfer Credit

Master's students are limited to a maximum of 6 transfer credits.

Satisfactory Progress

Per University Rules and Regulations, 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.

To maintain good standing, all CFS graduate students are required to:

- Earn a B or better in all required courses.
- Maintain a minimum cumulative GPA of 3.0, including courses taken outside the department (e.g., anthropology, education, psychology, sociology, etc.).

Student Learning Outcomes

1. Analyze and evaluate theory and empirical research on children and families.
2. Explain human development and changes in individuals and families across the lifespan
3. Explain and apply the roles of development and change in different cultural communities and contexts.
4. Apply knowledge about issues of child and

family development in practice.

Core Courses required for the M.A. degree are:

- CFS 621 - Statistical Concepts I 3 credit(s)
- CFS 653 - Child and Family Development Across the Life Cycle 3 credit(s)
- CFS 667 - Child & Family Criss/Ctrl Persp 3 credit(s)
- SWK 775 - Program Evaluation 3 credit(s)

Human Development in Immigrant and Refugee Families (15 credits)

- CFS 682 - Development in Immigrant & Refugee Families 3 credit(s)
- CFS 686 - Family Life Education 3 credit(s)

Approved Elective Courses 9 credit(s)

Youth and Community Development (15 credits)

- CFS 652 - Mindfulness in Children and Youth 3 credit(s)
- CFS 674 - Promises and Problems in Youth and Emerging Adulthood 3 credit(s)

Approved Elective Courses 9 credit(s)

Distribution of Credits

Core Requirements 12

Concentration Courses 15

Project (CFS 996) 3

Total 30

Human Development and Family Science, MS

Contact

Rachel Razza, Graduate Director, 144 White Hall
315-443-7377, rrazza@syr.edu

Faculty

Colleen Baish Cameron, D. Bruce Carter, Joseph P. Fanelli, Irene Kehres, Ambika Krishnakumar, Eunjoo Jung, Teresa MacDonald, Matthew Mulvaney, Kamala Ramadoss, Rachel Razza, Jaipaul L. Roopnarine, Merrill Silverstein

Staff

Chandice Haste-Jackson, Internship Coordinator

Arlene Johnston, Office Coordinator

David B. Falk College of Sport and Human Dynamics

Kathy Rainone, Administrative Assistant

Daria Webber, Director, Bernice M. Wright Laboratory School

Program Description

The Master of Science degree (M.S.) in human development and family science is a 30-credit degree program that aims to promote an understanding of human development across the lifespan. With an emphasis on the importance of social-cultural context, students gain broad knowledge of the study of childhood and family systems across various cultural and societal contexts.

All M.S. students must complete the core course and elective course requirements. Courses and training emphasize multicultural perspectives in child and family relationships and diverse research methodologies and scholarship. Elective 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.

In addition to course work, the M.S. degree requires the completion of a master's thesis (see graduate manual for details). M.S. programs prepare students to pursue careers in research, health services, and community agencies. Students may further their educational goals by applying to enroll in the doctoral program in the department. 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.

Admissions

Students seeking admission to the Department of Human Development and Family Science must meet the general admissions requirements of the Graduate School. Although no single factor determines entry to the program, competitive applicants typically have a minimum of: 1) GPA of 3.00 or higher (undergraduate and/or graduate work); 2) GRE scores of 144 Quantitative, 153 Verbal (please note, the GRE exam must be taken within the last five years). For international students whose primary language is not English, TOEFL scores of 577 (paper test) or 100 for the internet based (IBT) test are desirable.

Part-time Study

Students may pursue their graduate degree on a full or part-time basis. Students must enroll in a minimum of nine credit hours for full-time status. Students enrolled in six credit hours or less are considered part-time.

Financial Support

Limited department financial aid is available in the form of graduate assistantships and scholarship credits for students enrolled in masters and doctoral programs. Financial aid is determined based on merit.

Additional information regarding graduate financial aid can be found at <https://graduateadmissions.syr.edu/funding/>

Transfer Credit

Master's students are limited to a maximum of 6 transfer credits.

Satisfactory Progress

To maintain good standing, all graduate students are required to:

- Earn a B or better in all required courses.
- Maintain a minimum cumulative GPA of 3.0, including courses taken outside the department (e.g., anthropology, education, psychology, sociology, etc.).

Student Learning Outcomes

1. Analyze and evaluate theory and empirical research on children and families
2. Explain human development and changes in individuals and families across the lifespan
3. Explain and apply the roles of development and change in different cultural communities and contexts
4. Generate knowledge on a specific topic in child and family development via independent research

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)
- CFS 637 - Theo,Intrp,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)

Distribution of Credits

Core Requirements 15

Suggested Courses 12

Thesis (CFS 997) 3

Total 30

Doctorate

Human Development and Family Science, PhD

Contact

Rachel Razza, Graduate Director, 144 White Hall

315-443-7377, rrazza@syr.edu

Faculty

Colleen Baish Cameron, D. Bruce Carter, Joseph P. Fanelli, Irene Kehres, Ambika Krishnakumar, Eunjoo Jung, Teresa MacDonald, Matthew Mulvaney, Kamala Ramadoss, Rachel Razza, Jaipaul L. Roonarine, Merrill Silverstein

Staff

Chandice Haste-Jacson, Internship Coordinator

Arlene Johnston, Office Coordinator

Kathy Rainone, Administrative Assistant

Daria Webber, Director, Bernice M. Wright Laboratory School

Description

The Ph.D. program consists of 72 credits, including completion of a dissertation. The doctoral (PhD) program provides in-depth studies of familial, societal, and cultural factors that shape child development and family relationships. A primary focus is on scientific inquiry and research methodology employed in disciplines such as education, psychology, social sciences, and women's studies. It trains professionals for careers in academia, research, and human development and family service agencies.

Courses and training emphasize multicultural perspectives in child and family relationships and diverse research methodologies and scholarship. In addition, doctoral students have the opportunity to obtain university teaching instruction and experience through participation in Syracuse University's Future Professorate Program.

Admission

Students seeking admission to the Department of Human Development and Family Science must meet the general admissions requirements of the Graduate School. Although no single factor determines entry to the program, competitive applicants typically have a minimum of: 1) GPA of 3.00 or higher (undergraduate and/or graduate work); 2) GRE scores of 144 Quantitative, 153 Verbal (please note, the GRE exam must be taken within the last five years). For international students whose primary language is not English, TOEFL scores of 577 (paper test) or 100 for the internet based (IBT) test are desirable.

Financial Support

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 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. This includes teaching assistantships at the Bernice M. Wright Child Development Laboratory School. Recipients of 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, indicate your interest on the application for admission.

Facilities

The Department of Human Development and Family Science is located on the first floor of the Falk Complex. The Complex 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, and an expanded Student Services space conducive to providing programming that helps students be successful. In addition to administrative and academic program offices and classrooms, the Falk Complex also offers students dedicated study/collaborative space, computer labs and comforts like a café and student lounge.

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

Student Learning Outcomes

1. Apply knowledge of theoretical and conceptual frameworks that guide research in the child and family studies area and assess the applied aspects of research findings
2. Develop a significant research proposal in a specific topic area, collect and analyze data, and interpret the relevant findings
3. Students will collect and analyze data and interpret the relevant findings
4. Students will produce original research

5. Practice the requisite skills for professional careers in the field (e.g., college/university level faculty, research agencies, foundations, policy positions)

Core course requirements (24 credits)

- 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 637 - Theo,Intrp,Apps/Child Dev 3 credit(s)
- CFS 648 - Family Theory:Interp&Appl 3 credit(s)
- CFS 667 - Chld&Fam Crss/Ctrl Persp 3 credit(s)
- CFS 732 - Research Methods/CFS II 3 credit(s)

* Students must also select an additional research methods course (advanced statistics, qualitative research) in preparation for their doctoral research, 3 credit(s).

Elective Credits (36 credits)

In addition to completing the core requirements, students are required to take additional supporting courses distributed as follows:

- 15 credits of CFS electives
- 21 credits of directed electives

Students should consult with their faculty advisor prior to selecting elective courses. Students may choose courses at or above the 600 level. All students must complete a two-semester sequence in statistics and research methods.

Comprehensive Examination

After completing required coursework (57 of the 60 required course-based credits), 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 Human Development and Family Science. 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 (12 credits)

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 scheduled before a dissertation committee. The dissertation must meet additional requirements specified by the department and the Graduate School.

Distribution of Credits:

Core Requirements 24

CFS Electives 15

Directed Electives 21

Dissertation 12

Total 72

Transfer Credits

Subject to departmental approval, a maximum of up to 30 credits of Masters level coursework (in Human Development and Family Science or related disciplines at Syracuse University or other universities) may be applied to your Ph.D. program. Courses in research methodology, statistics, and major or substantive areas of study within Human Development and Family Science or related disciplines are eligible to be considered.

Part-Time Study

Students may pursue their graduate degree on a full or part-time basis. Students must enroll in a minimum of nine credit hours for full-time status. Students enrolled in six credit hours or fewer are considered part-time.

Satisfactory Progress

To maintain good standing, all graduate students are required to:

- Earn a B or better in all required courses.
- Maintain a minimum cumulative GPA of 3.0, including courses taken outside the department (e.g., anthropology, education, psychology, sociology, etc.).

Marriage and Family Therapy

Thom deLara, Chair, 315-443-9830
Peck Hall, 601 E. Genesee Street

Faculty

Deborah Coolhart, Thom deLara, Rashmi Gangamma, Linda Stone Fish, Dyane Watson, Tracey Reichert-Schimpff

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

Please note that effective Fall 2018, students will initially apply to either the MSW or MA program only, with admission to the Dual MSW/MA program at the end of year one via an internal admission process.

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), both of which must be pursued fulltime.

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

Contact

Thom deLara, Department Chair and Professor of Practice,

315-443-9830

tdeLara@syr.edu

Faculty

Deborah Coolhart, Thom deLara, Rashmi Gangamma, Linda Stone Fish, Dyane Watson

Description

The 60 credit SU Marriage and Family Therapy (SUMFT) program educates and trains clinicians, scholars and researchers in the profession of Marriage and Family Therapy. SU MFT carries out this mission through the "Self and Systems" training and supervision approach which incorporates the integration of self-understanding of students in clinical training, with a systems framework for clinical work with clients.

Students gain a solid knowledge of marriage and family therapy theory and techniques. Students get extensive hands-on training, both at the Couple and Family Therapy Center, an on-campus clinical training and research facility, and at local community sites.

Applicants to the master's degree in Marriage and Family Therapy are screened for admissions by a committee of faculty of the sponsoring department (Marriage and Family Therapy). Requirements include a completed bachelor's degree, recent GRE scores, 3 letters of recommendation, and a personal statement. There is no minimum GPA required for admission, although the MFT Department uses a benchmark of 3.4 as a standard.

Financial Support

Limited financial aid is available in the form of graduate assistantships and scholarship credits. Financial aid is determined on the basis of merit.

Facilities

Most of the courses in the master's degree are taught at Peck Hall, which is a newly renovated 30,000 square foot facility that has recently been completely renovated and adapted for a clinical training environment. The building contains three smart classrooms and a new computer lab with 24 stations.

Transfer Credit

Up to 12 credits of degree applicable course work may be transferred to the MA in Marriage and Family Therapy. A grade of B or higher is required for a course to transfer.

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.

Part-time study

A 3-year part-time program of study is available.

Student Learning Outcomes

1. Demonstrate awareness and regulation of self in system
2. Demonstrate engagement with cultural and contextual differences
3. Demonstrate MFT clinical competency skills across a variety of contexts
4. Demonstrate an applied knowledge of MFT legal and ethical guidelines and professional standards
5. Demonstrate an applied knowledge of MFT historical and current theoretical information

Course Requirements for M.A. Program

Required Courses - 51 credits

- MFT 567 - Sexual Issues for the Helping Professional 3 credit(s)
- 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)
- MFT 663 - Applied Research in Social Work 3 credit(s)
- MFT 684 - Family Therapy Perspectives on

- Cultural Diversity 3 credit(s)
- MFT 688 - Family Therapy Across the Life Cycle 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)
- MFT 603 - Introduction to Trauma Studies 3 credit(s)
- MFT 643 - Family Therapy with Complex Trauma 3 credit(s)
- MFT 687 - Spirituality in Therapy 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)
- MFT 644 - Family Therapy with LGBTQ Youth 3 credit(s)
- MFT 645 - Queering Theory, History and Clinical Practice 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)
- SWK 742 - Violence, Bullying, & Trauma: Clinical Perspectives 3 credit(s)
- SWK 727 - Family Violence: Policy, Practice and Research 3 credit(s)
- SWK 738 - Core Concepts in Trauma Treatment for Children and Adolescents 3 credit(s)
- SWK 682 - Introduction to Equine Assisted Activities and Therapies 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)

Doctorate

Marriage and Family Therapy, PhD

Contact

Linda Stone Fish, Ph.D., Graduate Director

flstone@syr.edu

315-443- 3024

Faculty

Deborah Coolhart, Thom deLara, Rashmi Gangamma, Linda Stone Fish, Dyane Watson

Program Description

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 required for all students applying to the PH.D. program. 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; 6 credits of advanced practicum; and 6 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.

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

Part-time students are not admitted into the PhD program.

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.

Student Learning Outcomes

1. Demonstrate competence in advanced theory and theory building
2. Demonstrate research competence
3. Demonstrate supervisory competence
4. Demonstrate professional teaching competence
5. Demonstrate clinical competence

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:

David B. Falk College of Sport and Human Dynamics

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 6 credits total

MFT 860 - Advanced Family Therapy Practicum - 6 credits

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 6 Credits

MFT 999 - Dissertation (6 credits)

Total credits required: 72 credits

Combined Degree

Social Work and Marriage and Family Therapy Dual Degree, MA/MSW

Contact:

Keith Alford, Director School of Social Work
kalford@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.

Part-time Study:

Given the rigorous nature of this program only full-time study is allowed. Students who are admitted to the program and drop below fulltime as defined by the sample program plan below will not be able to continue in the dual program.

Admission:

Please note that effective Fall 2018, students will initially apply to either the MSW or MA program only, with admission to the Dual MSW/MA program at the end of year one via an internal admission process.

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.

Student Learning Outcomes

1. Demonstrate Ethical and Professional Behavior
2. Engage Diversity and difference in Practice
3. Advance Human Rights and Social, Economic, and Environmental Justice
4. Engage in Practice-informed Research and Research-informed Practice
5. Engage in Policy Practice
6. Engage with Individuals, Families, Groups, Organizations, and Communities
7. Assess Individuals, Families, Groups, Organizations, and Communities
8. Intervene with Individuals, Families, Groups, Organizations, and Communities
9. Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities

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

Degree Requirements

Students will choose one of the three sequence

David B. Falk College of Sport and Human Dynamics

plans below. Variations in the chosen sequence plan is **not recommended**. Academic advising is required to alter the chosen program plan

Sequence Plan I

SWK Start Regular/Full Time Program / 96 Credit Hours

Year 1 Fall

- SWK 601 - Fundamentals of Social Work Practice I 3 credit(s)
- SWK 671 - Field Instruction I 3 credit(s)
- SWK 626 - Persons in Social Context 3 credit(s)
- SWK 611 - Social Welfare Policy and Services 3 credit(s)
- SWK 662 - Applied Research in Social Work 3 credit(s)

Year 1 Spring

- SWK 602 - Fundamentals of Social Work Practice II 3 credit(s)
- SWK 672 - Field Instruction II 3 credit(s)
- SWK 628 - Human Diversity in Social Contexts 3 credit(s)
- SWK 730 - Family Systems Theory 3 credit(s)
- MFT 724 / SWK 724 - Psychopathology 3 credit(s)

Year 1 Summer Session 1

- MFT 681 - Marriage and Family Therapy Ethics and Issues 3 credit(s)

Year 1 Summer Session 2

- SWK 781 / MFT 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)

Year 2 Fall

- SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)
- SWK 771 - Field Instruction III 3 credit(s)
- SWK 776 - Clinical Practice Evaluation 3 credit(s)
- MFT 750 - Introduction to Marriage & Family Therapy Practicum 3 credit(s)
- MFT 661 - Introduction to Family Therapy Practice 3 credit(s)

Year 2 Spring

- SWK 733 - Social Work Practice in Mental Health 3 credit(s)
- SWK 772 - Field Instruction IV 3 credit(s)
- MFT 760 - Practicum in Marriage and Family Therapy I 3 credit(s)
- MFT 682 - Marriage and Family Therapy Theory and Techniques 3 credit(s)
- SWK 761 - Mental Health Policy 3 credit(s)

Year 2 Summer Session 1

- MFT 567 - Sexual Issues for the Helping Professional 3 credit(s)

- MFT 662 - Systems Dynamics in a Group Setting 3 credit(s)
- MFT 761 - Practicum in Marriage & Family Therapy II 3 credit(s)

Year 2 Summer Session 2

- MFT 672 - Couple Therapy: Theory and Techniques 3 credit(s)

Year 3 Fall

- MFT 762 - Practicum in Marriage and Family Therapy III 3 credit(s)

MFT Elective

MFT Elective

Year 3 Spring

- MFT 684 - Family Therapy Perspectives on Cultural Diversity 3 credit(s)
- MFT 688 - Family Therapy Across the Life Cycle 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)

****Students in Sequence I have the option of taking SWK 771 in 12 wk summer session followed by SWK 772 in Fall**

Sequence Plan II

MFT Start/Regular Full Time Program/ 96 Credit Hours

Year 1 Fall

- MFT 661 - Introduction to Family Therapy Practice 3 credit(s)
- MFT 750 - Introduction to Marriage & Family Therapy Practicum 3 credit(s)
- MFT 681 - Marriage and Family Therapy Ethics and Issues 3 credit(s)
- MFT Elective 1 MFT 671 - Introduction to Family Systems 3 credit(s)
- SWK 626 - Persons in Social Context 3 credit(s)

Year 1 Spring

- MFT 682 - Marriage and Family Therapy Theory and Techniques 3 credit(s)
- MFT 760 - Practicum in Marriage and Family Therapy I 3 credit(s)
- MFT 684 - Family Therapy Perspectives on Cultural Diversity 3 credit(s)
- MFT 688 - Family Therapy Across the Life Cycle 3 credit(s)
- SWK 662 - Applied Research in Social Work 3 credit(s)

Year 1 Summer Session 1

- MFT 662 - Systems Dynamics in a Group Setting

3 credit(s)

- MFT 761 - Practicum in Marriage & Family Therapy II 3 credit(s)
- SWK 724 / MFT 724 - Psychopathology 3 credit(s)

Year 1 Summer Session 2

- MFT 672 - Couple Therapy: Theory and Techniques 3 credit(s)

Year 2 Fall

- SWK 601 - Fundamentals of Social Work Practice I 3 credit(s)
- SWK 671 - Field Instruction I 3 credit(s)
- SWK 611 - Social Welfare Policy and Services 3 credit(s)
- MFT 762 - Practicum in Marriage and Family Therapy III 3 credit(s)

Year 2 Spring

- SWK 602 - Fundamentals of Social Work Practice II 3 credit(s)
- SWK 672 - Field Instruction II 3 credit(s)
- SWK 628 - Human Diversity in Social Contexts 3 credit(s)
- SWK 730 - Family Systems Theory 3 credit(s)
- MFT 763 - Practicum in Marriage and Family Therapy IV 3 credit(s)

Year 2 Summer Session 1

- MFT 567 - Sexual Issues for the Helping Professional 3 credit(s)

Year 2 Summer Session 2

- SWK 781 / MFT 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)

MFT Elective 2

Year 3 Fall

- SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)
- SWK 771 - Field Instruction III 3 credit(s)
- SWK 776 - Clinical Practice Evaluation 3 credit(s)

Year 3 Spring

- SWK 733 - Social Work Practice in Mental Health 3 credit(s)
- SWK 772 - Field Instruction IV 3 credit(s)
- SWK 761 - Mental Health Policy 3 credit(s)

Sequence Plan III

Advanced Standing Full time Program 78 Credit Hours (eligible BSW graduates only)

Year 1 Summer

- SWK 730 - Family Systems Theory 3 credit(s)
- SWK 724 / MFT 724 - Psychopathology 3 credit(s)
- MFT 681 - Marriage and Family Therapy Ethics

and Issues 3 credit(s)

- SWK 781 / MFT 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)

Year 1 Fall

- SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)
- SWK 771 - Field Instruction III 3 credit(s)
- SWK 776 - Clinical Practice Evaluation 3 credit(s)
- MFT 661 - Introduction to Family Therapy Practice 3 credit(s)
- MFT 750 - Introduction to Marriage & Family Therapy Practicum 3 credit(s)

Year 1 Spring

- SWK 733 - Social Work Practice in Mental Health 3 credit(s)
- SWK 772 - Field Instruction IV 3 credit(s)
- SWK 761 - Mental Health Policy 3 credit(s)
- MFT 682 - Marriage and Family Therapy Theory and Techniques 3 credit(s)
- MFT 760 - Practicum in Marriage and Family Therapy I 3 credit(s)

Year 2 Summer

- MFT 662 - Systems Dynamics in a Group Setting 3 credit(s)
- MFT 761 - Practicum in Marriage & Family Therapy II 3 credit(s)

SWK Elective

SWK Adv. Practice

Year 2 Fall

MFT Elective

MFT Elective

- MFT 762 - Practicum in Marriage and Family Therapy III 3 credit(s)

Year 2 Spring

- MFT 684 - Family Therapy Perspectives on Cultural Diversity 3 credit(s)
- MFT 688 - Family Therapy Across the Life Cycle 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)

Year 3 Summer

- MFT 567 - Sexual Issues for the Helping Professional 3 credit(s)
- MFT 672 - Couple Therapy: Theory and Techniques 3 credit(s)

SWK Advanced Practice Courses and Electives

(All qualify for SWK Elective Requirement)

Adv. Practice Courses:

- 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 738 - Core Concepts in Trauma Treatment for Children and Adolescents 3 credit(s)
- SWK 736 - Evidence-Based Approaches to Mental Health Treatment 3 credit(s)
- SWK 740 - Treatment of Complex Trauma with Individuals 3 credit(s)
- SWK 600 - Selected Topics 1-6 credit(s) Equine Assisted Activities and Therapies
- SWK 600 - Aging in the context of Family Life
- SWK 657 - Processes of Aging 3 credit(s)
- SWK 710 - Topics in Advanced Social Work Practice and Policy 1-6 credit(s)
- SWK 727 - Family Violence: Policy, Practice and Research 3 credit(s)
- SWK 737 - Strategies for Community Behavioral Health Practice 3 credit(s)
- SWK 739 - Applied Neuroscience in the Human Services 3 credit(s)
- SWK 742 - Violence, Bullying, & Trauma: Clinical Perspectives 3 credit(s)

Qualifying Electives for MFT Elective Requirement

- HTW 603/ MFT 603 - Introduction to Trauma Studies 3 credit(s)
- MFT 641 - Divorce Mediation 3 credit(s)
- MFT 642 - Therapy with LGBTQ Couples and Families 3 credit(s)
- MFT 643 - Family Therapy with Complex Trauma 3 credit(s)
- MFT 644 - Family Therapy with LGBTQ Youth 3 credit(s)
- MFT 645 - Queering Theory, History and Clinical Practice 3 credit(s)
- MFT 686 - Play Therapy with Children and Families 3 credit(s)
- MFT 687 - Spirituality in Therapy 3 credit(s)

Certificate of Advanced Study

Child Therapy, CAS

Contact:

Thom deLara, Department Chair and Professor of Practice,
Department of Marriage and Family Therapy
315-443-9830
tdelara@syr.edu

Faculty:

Deborah Coolhart, Thom deLara, Tracey Reichert Schimpff, Tracey Marchese, Dyane Watson, Melissa Luke, Derek Seward

Description:

The Certificate of Advanced Studies in Child Therapy is available for graduate students, clinicians, mental health professionals, and practitioners from allied disciplines who intend to expand their knowledge and skills in clinical practice with children and their families or caregivers. The proposed Certificate of Advanced Studies in Child Therapy is in keeping with the concerns expressed by state and federal agencies about the critical shortage of mental health professionals who are trained to address the needs of children, adolescents and their families.

Admission:

The Certificate of Advanced Studies in Child Therapy is restricted to baccalaureate prepared licensed/certified professionals, and students currently enrolled in master's level licensure qualifying programs. GRE's are not required. Psychopathology (or its equivalent) is required for completion of the Child Therapy CAS. Because Psychopathology is a required course in the SWK, MFT and MHC master's degree programs, it is not listed as a course in the Child Therapy CAS. However, applicants who previously completed a master's degree, and did not have Psychopathology in their course of study, must take a Psychopathology course in addition to the required 12 credits in the CAS. Completion of the Advanced Certificate in Child Therapy 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.

Student Learning Outcomes

1. Understand principles of child development; human sexuality; gender development; and family development and processes, especially in the context of trauma
2. Understand foundational theories and techniques of child and family psychotherapy
3. Know which models, modalities, and/or techniques are most effective for presenting problems with children, including children and families with trauma
4. Comprehend a variety of individual and systemic therapeutic models and their application, including evidence-based therapies and culturally sensitive approaches for working with children and families, including trauma-related approaches to treatment
5. Know how to deliver interventions in a way that is sensitive to special needs of clients (e.g., gender, age, socioeconomic status, culture/race/ethnicity, sexual orientation, disability, personal history, larger systems issues of the client)

Curriculum Requirements:

Three of the following courses:

Either

- MFT 686 - Play Therapy with Children and Families 3 credit(s)

or

- COU 678 - Child Centered Play Therapy 3 credit(s)

One of:

- SWK 626 - Persons in Social Context 3 credit(s)

or

- MFT 688 - Family Therapy Across the Life Cycle 3 credit(s)

or

- COU 626 - Social and Cultural Dimensions of Counseling 3 credit(s)

or

- COU 645 - Counseling Prepracticum II: Advanced Multicultural Counseling Skills 3 credit(s)

Either

- MFT 643 - Family Therapy with Complex Trauma 3 credit(s)

or

- SWK 738 - Core Concepts in Trauma Treatment for Children and Adolescents 3 credit(s)

And one of the following courses:

- SWK 742 - Violence, Bullying, & Trauma: Clinical Perspectives 3 credit(s)
- SWK 709 - Practice with Children, Adolescents and Families 3 credit(s)
- MFT 644 - Family Therapy with LGBTQ Youth 3 credit(s)
- COU 672 - Counseling Children and Adolescents 3 credit(s)

Transfer Credit:

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.

Part-time Study:

Part-time study is allowed.

Satisfactory Progress:

Students must complete each course with a grade of B- or better and an overall GPA of 3.00 or better.

Trauma-Informed Practice, CAS

Contact:

Thom deLara, Department Chair, tdelara@syr.edu, 315-443-9830

Dept. of Marriage and Family Therapy
Peck Hall, 601 East Genesee Street

Faculty:

Dessa Bergen-Cico, Paul Caldwell, Deborah Coolhart, Kenneth Corvo, Ellen deLara, Thom deLara, Tracey Marchese, Tracey Reichert Schimpff, Linda Stone Fish

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:

Completed bachelor's degree, minimum GPA of 3.4. Prefer experience in the field of trauma or enrollment in or completion of a master's degree in an allied field. GRE's not required. An admissions committee consisting of members of MFT, SWK and PFN faculty will consider requests for exceptions to the admissions requirements. 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.

Financial Support

No financial aid is offered to students in the Trauma-informed CAS program.

Requirements

The curriculum includes three 3-credit courses, to be chosen from a group of five courses (Group A), and two 3-credit courses, to be chosen from a list of courses that include trauma-informed content (Group B). Students currently enrolled

in a master's degree must take at least one of the courses in Group A outside their department.

Student Learning Outcomes

1. Identify the differences between single-event trauma and complex trauma
2. Describe the historical context of the trauma field
3. Demonstrate knowledge and emerging skills in the area of assessment of complex trauma, including the use of various assessment tools
4. Demonstrate knowledge and emerging skills in the area of trauma-informed intervention, including the ability to match interventions appropriately to the type(s) of trauma experienced
5. Demonstrate an understanding of trauma-informed intervention for diverse populations

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).

Group A 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 738 - Core Concepts in Trauma Treatment for Children and Adolescents 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)

Group B Courses (choose 2 courses from this course list):

- SWK 742 - Violence, Bullying, & Trauma: Clinical Perspectives 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)
- MFT 687 - Spirituality in Therapy 3 credit(s)
- MFT 773 - Family Violence: Theory and Therapy 3 credit(s)
- SWK 682 - Introduction to Equine Assisted Activities and Therapies 3 credit(s)
- SWK 727 - Family Violence: Policy, Practice and Research 3 credit(s)
- SWK 735 - Principles and Methods of Social

Work Practice with Black Families 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.

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.

Public Health, Food Studies and

Nutrition

**Department of Public Health,
Food Studies and Nutrition**

Rick Welsh, Department Chair
542 White Hall

315-443-4060

jrwelsh@syr.edu

The Department of Public Health, Food Studies and Nutrition offers graduate academic programs in: Addiction Studies, MA; Food Studies, MS; Global Health, MS; Nutrition Science, MA, Nutrition Science, MS; Public Health, MS; Addiction Studies, CAS; Dietetic Internship Program, CAS; Food Studies, 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.

Facilities

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 the new Experimental Food Lab Kitchen, Commercial Kitchen, Baking Nook, and Susan Klenk Cafe. The premier and state-of-the-art kitchens are equipped with commercial equipment and appliances. Combined with our Cafe/Classroom, the kitchens offer unparalleled resources for the College. One of the most exciting parts of the experimental food kitchen is the video camera system which allows our instructors/faculty to

broadcast classes, food demos and seminars from our location to anywhere on campus, and across the country. Our facilities represent the next chapter - it sets the stage for industry-leading, forward-thinking approach to food culture, nutrition, research, and food studies development. It provides students with the science and technology to create extraordinary food study - science - technology experiences unimaginable to previous generations. 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, as well as dedicated study/collaborative space, computer labs and comforts like a café and student lounge.

Graduate Programs

Food Studies

Anne Bellows, Food Studies Graduate Program Director
545 White Hall

443-4228

acbellow@syr.edu

Description

The graduate program in Food Studies offers a master of science in Food Studies and a certificate of advanced studies (CAS) in Food Studies.

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.

The CAS in Food Studies enhances students' employment profile in food-related fields, opening employment opportunities in: local and national government work associated with food regulation and industry relations; NGO engagement in advocacy and policy associated with the human right to adequate food, food sovereignty, food and nutrition security, and trade and food-oriented labor; economic and social development work at the community, national, and international scales; food production and distribution companies, services, and vendors in established or start-up modes.

Nutrition Science and Dietetics

Lynn Brann, Director of Graduate Programs in Nutrition
559 White Hall

315-443-5573

lbrann@syr.edu

Description

The graduate program in Nutrition Science offers master of science and master of arts degrees in Nutrition Science and a certificate of advanced study for students enrolled in the dietetic internship program. Graduate students in the Nutrition Science program acquire a balanced background in the theory and application of the science of nutrition. The program emphasizes critical evaluation of scientific information and evidence-based practice and research. Due to the varying backgrounds and professional interests of students, the master's degree program is flexible. For many practitioners in nutrition and dietetics the master's degree represents the professional qualification and hence has become the terminal degree. However, the master's degree may also serve as a preparatory step toward more advanced study.

The dietetic internship CAS 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. Upon completion of the program, graduates are eligible to take the registration examination for dietitians offered through the Commission on Dietetics Registration.

Public Health

Brooks Gump, Director of Graduate Programs in Public Health
344 White Hall

315-443-2208

bbgump@syr.edu

Description

The Public Health program offers advanced certificates in Addictions Studies and Global Health, a master of arts in Addiction Studies, a master of science in Global Health, and a master of science in Public 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** is designed to provide students with core knowledge, research, and practice skills necessary for the advancement of evidence-based global health. Applied competencies are acquired in relevant coursework, culminating in an international practicum placement and capstone project.

The **MS in Public Health** is a 42 credit hour graduate program designed to provide students with core knowledge and research skills necessary for the advancement of evidence-based public health. Within the MSPH, there are two tracks. The Global Health track introduces students to health issues in the context of the global community providing students with exposure to theory, research and applications in both the US and international settings. The Biostatistics track provides students with training in both introductory and advanced biostatistics - applying multiple different analytic methods to the analysis of public health data.

Master's

Addiction Studies, MA

The MA in Addiction Studies is currently not admitting students

Contact

Dessa Bergen-Cico, Coordinator Addiction Studies Program in Public Health
Department of Public Health, Food Studies, and Nutrition
344 White Hall
315-443-0250
dkbergen@syr.edu

Core Faculty

Dessa Bergen-Cico, James Byrne, Ignatius Ijere

Staff

Judi Emmi, Administrative Assistant
Susan Scholl, Internship Coordinator
Melinda Stoffel, Office Coordinator

Description

The 36-credit hour Master of Arts in Addiction Studies curriculum focuses on public health perspectives and evidence based practices that

prepare students for employment in the field of alcohol, other drugs and behavioral (process) addictions across the continuum of prevention, treatment, and recovery.

The MA in Addiction Studies addresses one of society's major problems and helps students develop core competencies in preparation for employment in a number of fields dealing with substance abuse, gambling, and related behavioral addictions. Students are exposed to evidence-based practices 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 program, students meet the NY State Office of Alcoholism and Substance Abuse Services (NYS OASAS) education training requirements as a Credentialed Alcohol and Substance Abuse Counselor in Training (CASAC-T); and be eligible to sit for the CASAC exam. The program also meets NYS OASAS educational requirements for the Certified Prevention Professionals (CPP)/ Certified Prevention Specialists (CPS). OASAS requires supervised post-graduate work experience before full certification for either credential is awarded. 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.

Part-Time Study

Part-time study is acceptable; however, time to degree completion depends on available course offerings and number of courses enrolled. Time limit to degree completion is 7 years.

Financial Support

Limited department financial aid is available in the form of graduate assistantships and scholarship credits for students enrolled in masters and doctoral programs. Financial aid is determined based on merit.

Additional information regarding graduate financial aid can be found at <https://graduateadmissions.syr.edu/funding/>

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 1.2 credits at Syracuse University.

Degree

MA, 36 credits

Student Learning Outcomes

Upon completion of the program, students will be able to:

1. Compare & contrast theoretical models applied to the understanding of substance abuse, addiction and treatment approaches in diverse populations
2. Propose risk reduction & treatment programs
3. Articulate professional values and ethics specific to the addiction prevention role
4. Apply theoretical and evidence based principles to counseling individuals and families affected by substance use
5. Demonstrate competencies and skills required to conduct research in the field of addiction services

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 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)

David B. Falk College of Sport and Human Dynamics

- HTW 622 - Research Proposal Development 2 credit(s)

Elective: 3 Credits

Selected in consultation with academic adviser.

Program Requirements:

Qualifying Examination
Master's Paper

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.

Food Studies, MS

Contact:

Anne Bellows
Graduate Program Director Food Studies
545 White Hall
315-443-4228
acbellow@syr.edu

Core Faculty:

Anne Bellows, Laura-Anne Minkoff-Zern, Rick Welsh, Evan Weissman

Staff:

Jennifer Hurley, Administrative Assistant
Elissa Johnson, Internship Placement Coordinator

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 1.2 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.

Student Learning Outcomes

1. Evaluate diverse historical and contemporary foundational currents of thought in food studies and systems
2. Use research and evaluation methodologies with particular relevance to food studies
3. Analyze the causes, consequences, and strategies to address disparities in patterns of food production and consumption
4. Examine domestic and global agri-food governance and policies
5. Communicate data and public food related information in written form

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 and Global Health 3 credit(s)
- 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 B. Gump, Director of Graduate Programs in Public Health
344H White Hall
315-443-2208
bbgump@syr.edu

Core Faculty

Brooks B. Gump, Brittany Kmush, Sandra D. Lane, David Larsen, Katherine McDonald, Lutchmie Narine, Lisa Olson-Gugerty, Arthur Owora

Affiliated Faculty

Indu Gupta, Commissioner of Health, Onondaga County Health Department, Sreekumar Nellickappilly, Fulbright Scholar, Indian Institute of Technology, Madras, India

Staff

Judi Emmi, Administrative Assistant

Susan Scholl, Internship Coordinator

Melinda Stoffel, Office Coordinator

Description

The Master of Science in Global Health is a 36-credit hour graduate program designed to provide students with core knowledge, research, and practice skills necessary for the advancement of evidence-based global health. 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. Applied competencies are acquired in relevant coursework, culminating in an international practicum placement.

A Bachelor's Degree from an accredited college or university with a graduating GPA of 3.2. Students from broad inclusive fields of undergraduate study and work experience will be considered for admission. GRE scores and a personal statement are required for admission. A minimum TOEFL score of 100 is required for admission.

Admissions

A Bachelor's Degree from an accredited college or university with a graduating GPA of 3.2. Students from broad inclusive fields of undergraduate study and work experience will be considered for admission. GRE scores and a personal statement are required for admission. A minimum TOEFL score of 100 is required for admission.

Part-Time Study

Part-time study is acceptable; however, time to degree completion depends on available course offerings and number of courses enrolled. Time limit to degree completion is 7 years.

Financial Support

Limited department financial aid is available in the form of graduate assistantships and scholarship credits for students enrolled in masters and doctoral programs. Financial aid is determined based on merit.

Additional information regarding graduate financial aid can be found at <https://graduateadmissions.syr.edu/funding/>

Transfer Credit

The public health program will accept a maximum of 9 credits in transfer for courses in which (1) the grade earned was at least a B and (2) the course is evaluated as equivalent to the required course in the program for which it will substitute.

Degree

MS, 36 credits

Student Learning Outcomes

The learning outcomes for this degree focus on 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. Additional learning outcomes focus on research and statistical skills.

Upon completion of the program, students will be able to:

1. Apply theories, concepts and models from social and behavioral disciplines as they relate to global health
2. Use relevant data, information sources, and evidence based approaches to inform practice in global health
3. Plan, implement and evaluate global health programs
4. Collaborate with community members and other stakeholders to promote global health
5. Demonstrate competencies and skills required to conduct research in the field of global health
6. Apply methods and analytic approaches used in epidemiology

Required Courses

Global Health Core (15 credits)

- HTW 661 - Development and Evaluation of Global Health Programs 3 credit(s)
- HTW 664 - Social & Behavioral Determinants in Global Health 3 credit(s)
- PAI 665 / HTW 665 - Applied Global Health Practice and Policy 3 credit(s)
- ANT 663 / HTW 663 - Global Health 3 credit(s)
- HTW 669 - Disability and Global Health 3 credit(s)

Research and Statistics Core (11 credits)

- HTW 630 - Introductory Biostatistics 3 credit(s)
- HTW 621 - Research Methods in Public Health 3 credit(s)
- HTW 622 - Research Proposal Development 2 credit(s)
- HTW 668 - Applied Epidemiology in Global Health 3 credit(s)

Applied Competencies (10 credits)

Required:

- HTW 667 - Graduate Practicum in Global Health 4 credit(s)

Choose 2 from the following:

Language Elective as required by choice of practicum site (3)

- ANT 662 / HTW 662 - Culture and Reproductive Health and Medicine 3 credit(s)
- ANT 669 - Medical Anthropology in Ecological Perspective 3 credit(s)
- ANT 665 - Critical Issues in Medical Anthropology 3 credit(s)
- FST 603 - The Human Right to Adequate Food and Nutrition 3 credit(s)
- FST 703 - Transnational Food, Health and the Environment 3 credit(s)
- HTW 704 - Epidemiology of Modern Plagues 3 credit(s)
- HTW 706 - Environmental Epidemiology 3 credit(s)
- NSD 555 - Food, Culture and Environment 3 credit(s)
- NSD 617 - Food as Medicine 3 credit(s)

Program Requirements

Capstone Project

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.

Nutrition Science, MA

Contact

Lynn Brann, Director of Graduate Programs in Nutrition

559 White Hall

315-443-4805

lbrann@syr.edu

Core Faculty

Kay Stearns Bruening, Lynn S. Brann, Tanya M. Horacek, Sudha Raj, Dayeon Shin, Jane Burrell Uzcategui, Margaret A. Voss, Jennifer L. Wilkins

Staff

Donna Sparkes, Administrative Assistant

Program Description

The program emphasizes critical evaluation of scientific information and evidence-based practice and research. Due to the varying backgrounds and professional interests of

students, the master's degree program is flexible. For many practitioners in nutrition and dietetics the master's degree represents the professional qualification and hence has become the terminal degree. However, the master's degree may also serve as a preparatory step toward more advanced study.

Admission

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.

Part-Time Study

Students are able to pursue the degree part-time.

Financial Support

Limited department financial aid is available in the form of graduate assistantships and scholarship credits for students enrolled in masters and doctoral programs. Financial aid is determined based on merit.

Additional information regarding graduate financial aid can be found at <https://graduateadmissions.syr.edu/funding/>

Transfer Credit

A maximum of 30 percent of credits counted toward a master's degree at Syracuse University may be transferred from another institution provided that the credits are an integral part of the degree program.

Degree

The M.A. degree requires the completion of a minimum of 36 credits.

Student Learning Outcomes

1. Locate, interpret evaluate and use professional literature and information technologies
2. Develop and apply research designs that include statistical analysis methods
3. Integrate research principles into evidence-based practice.
4. Demonstrate effective, assertive and professional oral, written and advocacy/negotiation communication and documentation skills and use of current information technologies when communicating with individuals, groups and the public
5. Demonstrate appropriate use and

interpretation of nutrition assessment techniques

6. Use the nutrition care process to make decisions, to identify nutrition-related problems and determine and evaluate nutrition interventions, including medical nutrition therapy, disease prevention and health promotion

7. Develop interventions to affect change and enhance wellness in diverse individuals and groups

8. Explain the impact of a food/nutrition policy position on food/public health and nutrition programs, services and research

9. Apply the fundamental biochemical principles to evaluate and solve metabolic and physiologic problems related to macro-and micro metabolism in both health and disease states

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 - Metabolism of Micronutrients 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.

Comprehensive Examination

The comprehensive examination for the M.A. degrees consists of an essay test on advanced topics in nutrition and an oral examination.

Master's students are required to complete the Master's Comprehensive Examination as part of their master's degree and must pass this in order to receive their degree. The Master's Comprehensive Examination is given to candidates who are in the final stages of completing all requirements for the master's degree. This examination provides the master's candidate an opportunity to demonstrate his/her capabilities for critical analysis and thinking and assimilation of information contained in the body of nutrition literature. If the student fails to pass the Comprehensive Exam, they will be given a second chance to complete it. Failure to pass the second time will result in suspension from the Nutrition Science Graduate Program.

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.

Nutrition Science, MS

Contact

Lynn Brann, Director of Graduate Programs in Nutrition

559 White Hall

315-443-4805

lbrann@syr.edu

Core Faculty

Kay Stearns Bruening, Lynn S. Brann, Tanya M. Horacek, Sudha Raj, Dayeon Shin, Jane Burrell Uzcategui, Margaret A. Voss, Jennifer L. Wilkins

Staff

Dona Sparkes, Administrative Assistant

Program Description

The program emphasizes critical evaluation of scientific information and evidence-based practice and research. Due to the varying backgrounds and professional interests of students, the master's degree program is flexible. The master's degree may also serve as a preparatory step toward more advanced study at the doctoral level.

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.

Admission

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.

Part-Time Study

Students are able to pursue the degree part-time.

Financial Support

Limited department financial aid is available in the form of graduate assistantships and scholarship credits for students enrolled in masters and doctoral programs. Financial aid is determined based on merit.

Additional information regarding graduate financial aid can be found at <https://graduateadmissions.syr.edu/funding/>

Transfer Credit

A maximum of 30 percent of credits counted toward a master's degree at Syracuse University may be transferred from another institution provided that the credits are an integral part of the degree program.

Degree

The M.S. degree requires the completion of a minimum of 30 credits, including a thesis.

Student Learning Outcomes

1. Locate, interpret evaluate and use professional literature and information technologies
2. Develop and apply research designs that include statistical analysis methods

3. Integrate research principles into evidence based practice
4. Demonstrate effective, assertive and professional oral, written and advocacy/ negotiation communication and documentation skills and use of current information technologies when communicating with individuals, groups and the public
5. Demonstrate appropriate use and interpretation of nutrition assessment techniques
6. Use the nutrition care process to make decisions, to identify nutrition-related problems and determine and evaluate nutrition interventions, including medical nutrition therapy, disease prevention and health promotion
7. Develop interventions to affect change and enhance wellness in diverse individuals and groups
8. Explain the impact of a food/nutrition policy position on food/public health and nutrition programs, services and research
9. Apply the fundamental biochemical principles to evaluate and solve metabolic and physiologic problems related to macro-and micro metabolism in both health and disease states

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 - Metabolism of Micronutrients 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

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.

Comprehensive Examination

The comprehensive examination for the M.S. degrees consists of an essay test on advanced topics in nutrition and an oral examination.

Master's students are required to complete the Master's Comprehensive Examination as part of their master's degree and must pass this in order to receive their degree. The Master's Comprehensive Examination is given to candidates who are in the final stages of completing all requirements for the master's degree. This examination provides the master's candidate an opportunity to demonstrate his/her capabilities for critical analysis and thinking and assimilation of information contained in the body of nutrition literature. If the student fails to pass the Comprehensive Exam, they will be given a second chance to complete it. Failure to pass the second time will result in suspension from the Nutrition Science Graduate Program.

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.

Public Health, MS

Contact

Brooks B. Gump, Director of Graduate Programs in Public Health
344H White Hall
315-443-2208
bbgump@syr.edu

Core Faculty

Brooks B. Gump, Brittany Kmush, Sandra D. Lane, David Larsen, Katherine McDonald, Lutchmie Narine, Arthur Owora

Affiliated Faculty

Indu Gupta, Commissioner of Health, Onondaga County Health Department, Sreekumar Nellikappilly, Fulbright Scholar, Indian Institute of Technology, Madras, India

Staff

Judi Emmi, Administrative Assistant
Susan Scholl, Internship Coordinator
Melinda Stoffel, Office Coordinator

Description:

The Master of Science in Public Health is a 42 credit hour graduate program designed to provide students with core knowledge and research skills necessary for the advancement of evidence-based public health. Within the MSPH, there are two tracks. The Global Health track introduces students to health issues in the context of the global community providing students with exposure to theory, research and applications in both the US and international settings. The Biostatistics track provides students with training in both introductory and advanced biostatistics - applying multiple different analytic methods to the analysis of public health data.

Admission:

A Bachelor's Degree from an accredited college or university with a graduating GPA of 3.2. Students from broad inclusive fields of undergraduate study and work experience will be considered for admission. Applicants will be asked to declare application to a program track and will be evaluated accordingly to that track. GRE scores and a personal statement are required for admission. A minimum GRE quantitative score of 50 percentile or better is required for the biostatistics track. A minimum TOEFL score of 100 is required for admission.

Part-Time Study

Part-time study is acceptable; however, time to degree completion depends on available course offerings and number of courses enrolled. Time limit to degree completion is 7 years.

Financial Support

Limited department financial aid is available in the form of graduate assistantships and scholarship credits for students enrolled in masters and doctoral programs. Financial aid is determined based on merit.

Additional information regarding graduate financial aid can be found at <https://graduateadmissions.syr.edu/funding/>

Transfer Credit

A maximum of 30 percent of credits counted toward a master's degree at Syracuse University may be transferred from another institution provided that the credits are an integral part of the degree program.

Degree

MS, 42 credit hours

Student Learning Outcomes

1. Appraise the health of populations using a biological, environmental, behavioral, and social determinants framework
2. Affect positive changes in health through research, policy analysis and evidence-based health programming
3. Conduct independent, original, discipline-specific scientific research
4. Apply analytic methods to the analysis of public health data (biostatistics track)
5. Explain health issues in the context of the global community providing students with the exposure to theory, research and applications in both the US and international settings (global track)

Requirements

Public Health Core (15 credits)

- 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 668 - Applied Epidemiology in Global Health 3 credit(s)
- HTW 706 - Environmental Epidemiology 3 credit(s)

Research and Statistics Core (15 credits)

Required: (12 credits)

- HTW 621 - Research Methods in Public Health 3 credit(s)
- HTW 622 - Research Proposal Development 2 credit(s)
- HTW 623 - Ethical Issues in Public Health, Food

and Nutrition Research 1 credit(s)

- HTW 630 - Introductory Biostatistics 3 credit(s)
- HTW 997 - Master's Thesis 3 credit(s)

Choose 1 from the following (3 credits):

- HTW 631 - Intermediate Biostatistics 3 credit(s) *
- GEO 683 - Geographic Information Systems 3-4 credit(s)
- SOC 614 - Introduction to Qualitative Research 3 credit(s)
- HTW 704 - Epidemiology of Modern Plagues 3 credit(s)

*This course is an option here only for those planning on a Global Health track - it is included as required course for Biostatistics track (see below).

Specialization Track

(choose 1, 12 credit concentration)

Global Health Track

Required (3 credits):

- HTW 663 - Global Health 3 credit(s)

Choose 3 courses from the following (9 credits):

- HTW 662 - Culture and Reproductive Health and Medicine 3 credit(s)
- ANT 665 - Critical Issues in Medical Anthropology 3 credit(s)
- ANT 669 - Medical Anthropology in Ecological Perspective 3 credit(s)
- NSD 555 - Food, Culture and Environment 3 credit(s)
- FST 603 - The Human Right to Adequate Food and Nutrition 3 credit(s)
- FST 703 - Transnational Food, Health and the Environment 3 credit(s)
- NSD 617 - Food as Medicine 3 credit(s)
- HTW 669 - Disability and Global Health 3 credit(s)

Biostatistics Track

Required (6 credits):

- HTW 631 - Intermediate Biostatistics 3 credit(s)
- HTW 632 - Advanced Biostatistics 3 credit(s)

Choose 2 courses from the following (6 credits):

- HTW 633 - Spatial statistics for public health 3 credit(s)
- GEO 683 - Geographic Information Systems 3-4 credit(s)
- GEO 685 - Community Geography 3 credit(s)

David B. Falk College of Sport and Human Dynamics

- GEO 687 - Environmental Geostatistics 3 credit(s)

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.

Combined Degree

Public Health, BS/Global Health, MS

Contact

Brooks B. Gump, Director of Graduate Programs in Public Health;
344H White Hall
Ph: 315-443-2208
Email: bbgump@syr.edu

Core Faculty

Brooks B. Gump, Brittany Kmush, Sandra D. Lane, David Larsen, Katherine McDonald, Lutchmie Narine, Lisa Olson-Gugerty, Arthur Owora

Affiliated Faculty

Indu Gupta, Commissioner of Health, Onondaga County Health Department

Sreekumar Nellickappilly, Fulbright Scholar, Indian Institute of Technology, Madras, India.

Description

The BS in Public Health/MS in Global Health is a 144 credit hour, 5 year academic program that provides students with an accelerated pathway to an advanced degree in public health. Students gain core knowledge, research, and practice skills necessary for the advancement of evidence-based public health, while eliminating redundancy if the degrees were completed separately. Students' complete 2 internships, a generalist public health internship in year 4 and an international global health internship in year 5; each with an associated capstone project. The bachelor's and master's degree are awarded at the completion of the 5th year of study.

Admission

Students may apply at two points: at the time of admission to Syracuse University (freshman entry) or during the fourth semester of study for students who entered Syracuse University as freshman public health majors. All students declare a program specialization by the sixth semester of study.

Internal and external transfer students may not apply directly to this program. Such students are admitted to the B.S. in public health program. If interested in the dual degree program, students

must meet with the program directors to determine if prior coursework is applicable and if the program can be completed within the 5 year time period.

Freshman entry admission will be preferred for applicants with SAT or ACT scores within the 85th percentile. Sophomore student admission will be considered for applicants with an UG GPA of 3.3 or better.

A personal statement is required. The GRE is not required.

Financial Support

Undergraduate financial aid will be provided as awarded via Syracuse University Financial Aid Office.

Graduate assistantships for year 5 will be provided as are feasible under the Falk College annual budget.

Facilities

Courses will be taught in classrooms across the newly renovated Falk Complex. Public health faculty and administrative offices are housed in 2 suites within the Falk Complex. In addition to administrative and academic program offices and classrooms, the Falk Complex also offers student access to dedicated study/collaborative space, computer labs and comforts like a café and student lounge.

Student Learning Outcomes: BS

At the completion of the B.S./M.S. degree in public health, students will be able to:

1. Apply theories, concepts, and models from social and behavioral disciplines as they relate to public health practice
2. Use relevant data, information sources, and evidence based approaches to inform public health practice
3. Plan, implement, and evaluate public health programs
4. Communicate public health information to diverse populations using a variety of media
5. Assess the health status of populations, determinants of health & illness, and factors contributing to health promotion and disease prevention across the lifespan
6. Analyze social, environmental, and behavioral factors that impact on health and contribute to health disparities
7. Compare and contrast the United States health care system structure to systems in other countries
8. Apply basic principles of epidemiology to interpret public health problems
9. Demonstrate cultural competence to meet the needs of diverse groups and vulnerable populations
10. Act according to professional values and ethics in public health practice, research, and education
11. Analyze how communities, community forces, and research shape health policies and regulations
12. Collaborate with community members and

other stakeholders to promote community health

Student Learning Outcomes: MS

At the completion of the B.S. in Public Health/ M.S. in Global Health degree, students will be able to:

1. Appraise the health of populations using abiological, environmental, behavioral, and social determinants framework
2. Affect positive changes in health through evidence based public health practice, research, policy analysis and education
3. Engage with global communities to develop practical solutions to public health problems

Program Requirements

Liberal Arts Requirements (62 credits)

Writing skills: 6 credits to include WRT 105 and WRT 205
Quantitative skills: 6 - 8 credits, to include MAT 121 or 221
Natural Science: 9 credits, to include NSD 225
Social Science: 9 credits, to include PSY 205 and ANT 663/HTW 663
Humanities: 9 credits, to include health ethics
Liberal Arts electives: to reach 62 credits of LA coursework

General Electives (15 credits)

To include the communication requirement

Public Health Requirements (50 credits)

- HSH 101 1st Year Gateway (1)
- HTW 121 Personal and Social Health (3)
- HTW 221 Community Health Promotion (3)
- HTW 302 Influencing Healthy Behavior (3)
- HTW 303 Community and Environmental Health (3)
- HTW 304 Community Health Education (3)
- HTW 306 Health Administration Systems (3)
- HTW 307 Culturally Competent Health Care (3)
- HTW 311 Health Literacy (3)
- HTW 422 Senior Capstone Internship (9)
- 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 669 - Disability and Global Health 3 credit(s)

Research and Statistics Core (11 credits)

- HTW 621 - Research Methods in Public Health 3 credit(s)

David B. Falk College of Sport and Human Dynamics

- HTW 622 - Research Proposal Development 2 credit(s)
- HTW 630 - Introductory Biostatistics 3 credit(s)
- HTW 668 - Applied Epidemiology in Global Health 3 credit(s)

Graduate Global Health Electives (6 credits)

A minimum of 2 three credit courses, to include a language course, if needed, per choice of global internship site.

Total Credits Required = 144

B.S. Public Health: 123

M.S. Global Health: 36

[15 credits shared across both programs]

Transfer Credits

The usual Syracuse University rules will apply for the consideration of transfer credit. Transfer credit will be considered for undergraduate level courses (100-499) that are an integral part of the program. Grades of C or better are required for UG courses considered for transfer. A maximum of 66 credits of UG coursework may be transferred. Transfer credit will be considered for graduate level courses (600-799) that are an integral part of the program. Grades of B or better are required for UG courses considered for transfer. A maximum of 9 credits of GRAD coursework may be transferred.

Part-Time Study

This program cannot be completed part-time.

Satisfactory Progress

Students are required to maintain a CUM GPA of 2.0 or higher to meet degree requirements for the BS degree.

Students are required to maintain a CUM GPA of 3.0 or higher to meet degree requirements for the MS degree.

Public Health, BS/MS

Contact

Brooks B. Gump, Director of Graduate Programs in Public Health;
344H White Hall
Ph: 315-443-2208
Email: bbgump@syr.edu

Core Faculty

Brooks B. Gump, Brittany Kmush, Sandra D. Lane, David Larsen, Katherine McDonald, Lutchmie Narine, Arthur Owora

Affiliated Faculty

Indu Gupta, Commissioner of Health, Onondaga County Health Department

Sreekumar Nellickappilly, Fulbright Scholar, Indian Institute of Technology, Madras, India

Description

The BS/MS in Public is a 150 credit hour, 5 year academic program that provides students with an accelerated pathway to an advanced degree in public health. Students gain core knowledge, research, and practice skills necessary for the advancement of evidence-based public health, while eliminating redundancy if the degrees were completed separately.

Students complete an internship experience, a specialization track in either global health or biostatistics, and a master's thesis. The bachelor's and master's degree are awarded at the completion of the 5th year of study.

Admission

Students may apply at two points: at the time of admission to Syracuse University (freshman entry) or during the fourth semester of study for students who entered Syracuse University as freshman public health majors. All students declare a program specialization by the sixth semester of study.

Internal and external transfer students may not apply directly to this program. Such students are admitted to the B.S. in public health program. If interested in the dual degree program, students must meet with the program directors to determine if prior coursework is applicable and if the program can be completed within the 5 year time period.

Freshman entry admission will be preferred for applicants with SAT or ACT scores within the 85th percentile. Sophomore student admission will be considered for applicants with an UG GPA of 3.3 or better.

A personal statement is required. The GRE is not required.

Financial Support

Undergraduate financial aid will be provided as awarded via Syracuse University Financial Aid Office.

Graduate assistantships for year 5 will be provided as are feasible under the Falk College annual budget.

Facilities

Courses will be taught in classrooms across the newly renovated Falk Complex. Public health faculty and administrative offices are housed in 2 suites within the Falk Complex. In addition to administrative and academic program offices and classrooms, the Falk Complex also offers student access to dedicated study/collaborative space, computer labs and comforts like a café and student lounge.

Student Learning Outcomes: BS

At the completion of the B.S./M.S. degree in public health, students will be able to:

1. Apply theories, concepts, and models from social and behavioral disciplines as they relate to public health practice
2. Use relevant data, information sources, and evidence based approaches to inform public health practice
3. Plan, implement, and evaluate public health programs
4. Communicate public health information to diverse populations using a variety of media
5. Assess the health status of populations, determinants of health & illness, and factors contributing to health promotion and disease prevention across the lifespan
6. Analyze social, environmental, and behavioral factors that affect health and contribute to health disparities
7. Compare and contrast the United States health care system structure to systems in other countries
8. Apply basic principles of epidemiology to interpret public health problems
9. Demonstrate cultural competence to meet the needs of diverse groups and vulnerable populations
10. Act according to professional values and ethics in public health practice, research, and education
11. Analyze how communities, community forces, and research shape health policies and regulations
12. Collaborate with community members and other stakeholders to promote community health

Student Learning Outcomes: MS

At the completion of the B.S./M.S. degree in public health, students will be able to:

1. Appraise the health of populations using a biological, environmental, behavioral, and social determinants framework
2. Affect positive changes in health through research, policy analysis and evidence-based health programming
3. Based on specialization track completed, demonstrate advanced knowledge in global health or biostatistics
4. Conduct independent, original, discipline-specific scientific research

Program Requirements

Liberal Arts Requirements (62 credits)

Writing skills: 6 credits to include WRT 105 and WRT 205
Quantitative skills: 6 - 8 credits, to include MAT 121 or 221
Natural Science: 9 credits, to include NSD 225
Social Science: 9 credits, to include PSY 205
Humanities: 9 credits, to include health ethics
Liberal Arts electives: to reach 62 credits of LA coursework

General Electives (15 credits)

To include communication, and depending on specialization track, ANT 663/HTW 663 Global Health or HTW 631 Intermediate Biostatistics

Public Health Requirements (49 credits)

- HSH 101 1st Year Gateway (1)
- HTW 121 Personal and Social Health (3)
- HTW 221 Community Health Promotion (3)
- HTW 302 Influencing Healthy Behavior (3)
- HTW 303 Community and Environmental Health (3)
- HTW 304 Community Health Education (3)
- HTW 306 Health Administrative Systems (3)
- HTW 307 Culturally Competent Health Care (3)
- HTW 311 Health Literacy (3)
- HTW 422 Senior Capstone Internship (9)

- 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 668 - Applied Epidemiology in Global Health 3 credit(s)
- HTW 706 - Environmental Epidemiology 3 credit(s)

Research and Statistics Requirements (15 credits)

Required: (12 credits)

- HTW 621 - Research Methods in Public Health 3 credit(s)
- HTW 622 - Research Proposal Development 2 credit(s)
- HTW 623 - Ethical Issues in Public Health, Food and Nutrition Research 1 credit(s)
- HTW 630 - Introductory Biostatistics 3 credit(s)
- HTW 997 - Master's Thesis 3 credit(s)

Elective: Choose 1 from the following (3 credits)

- HTW 631 - Intermediate Biostatistics 3 credit(s) 1
- GEO 683 - Geographic Information Systems 3-4 credit(s)
- SOC 614 - Introduction to Qualitative Research 3 credit(s) (WGS 641/EDU 603 - Introduction to Qualitative Research (3))
- HTW 704 - Epidemiology of Modern Plagues 3 credit(s)

¹ This course is an option here only for those planning on a Global Health track - it is included as required for Biostatistics track.

Specialization Track

(Choose 1, 9-credit concentration)

Global Health

Choose 3 from the following (9 credits):

- ANT 662/ HTW 662 - Culture and Reproductive Health and Medicine 3 credit(s)
- ANT 665 - Critical Issues in Medical Anthropology 3 credit(s)
- FST 603 - The Human Right to Adequate Food and Nutrition 3 credit(s)
- FST 703 - Transnational Food, Health and the Environment 3 credit(s)
- HTW 669 - Disability and Global Health 3 credit(s)
- NSD 555 - Food, Culture and Environment 3 credit(s)
- NSD 617 - Food as Medicine 3 credit(s)

Biostatistics

Required:

- HTW 632 - Advanced Biostatistics 3 credit(s)

Electives: Choose 2 from the following (6 credits):

- HTW 633 - Spatial statistics for public health 3 credit(s)
- CIE 687 / GEO 687 - Environmental Geostatistics 3 credit(s)
- GEO 683 - Geographic Information Systems 3-4 credit(s)

Total Credits Required = 150

B.S. in Public Health: 123
M.S. in Public Health: 42
[with 15 credits shared across both degree]

Transfer Credits

Syracuse University rules will apply for the consideration of transfer credit. Transfer credit will be considered for undergraduate level courses (100-499) that are an integral part of the program. Grades of C or better are required for UG courses considered for transfer. A maximum of 66 credits of UG coursework may be transferred. Transfer credit will be considered for graduate level courses (600-799) that are an integral part of the program. Grades of B or better are required for UG courses considered for transfer. A maximum of 9 credits of GRAD coursework may be transferred.

Part-Time Study

This program cannot be completed part-time.

Satisfactory Progress

Students are required to maintain a CUM GPA of 2.0 or higher to meet degree requirements for the BS degree.

Students are required to maintain a CUM GPA of 3.0 or higher to meet degree requirements for the MS degree.

Certificate of Advanced Study

Addiction Studies, CAS

Contact

Dessa Bergen-Cico, Coordinator Addiction Studies Programs in Public Health
444C White Hall
315-443-0250
dkbergen@syr.edu

Core Faculty

Dessa Bergen-Cico, James Byrne, Ignatius Ijere

Staff

Judi Emmi, Administrative Assistant

Susan Scholl, Internship Coordinator

Melinda Stoffel, Office Coordinator

Description

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 these 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 helps students develop core competencies in preparation for employment in a number of fields dealing with substance abuse, gambling, and related behavioral addictions. Students are exposed to evidence-based practices 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 program, students meet the NY State Office of Alcoholism and Substance Abuse Services (NYS OASAS) education training requirements as a Credentialed Alcohol and Substance Abuse Counselor in Training (CASAC-T); and be eligible to sit for the Credentialed Alcohol and Substance Abuse Counselor (CASAC) exam. OASAS requires supervised post-graduate work experience before full certification is awarded. Students seeking credentialing in states other than New York must contact the specific credentialing office for that state.

Admissions

Internal applications only accepted from the following SU 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). Requirements include matriculated status in one of the Syracuse University graduate programs named above, official transcript, personal statement and 2 letters of recommendation (one of which must be an academic reference; the other may be a professional reference)

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

Part-Time Study

Part-time study is acceptable; however, time to degree completion depends on available course offerings and number of courses enrolled. Time limit to degree completion is 7 years.

Financial Support

Students only enrolled in a CAS program are not eligible for department financial aid. Additional information regarding loan availability for CAS programs can be found at <https://graduateadmissions.syr.edu/funding/>

Gainful Employment Disclosure

For more information about our CAS graduation rates, the median debt of students who completed the program, and other important information, please visit Syracuse University Gainful Employment Disclosure page (<https://www.syracuse.edu/about/consumer-information/gainful-employment/>) and click the title of the CAS.

Transfer Credits

A maximum of three credits from a combination of transfer and/or external examinations/extra-institutional and experiential learning will be accepted toward a CAS.

Degree

CAS, 24 credits

Student Learning Outcomes

Upon completion of the program, students will be able to:

1. Compare & contrast theoretical models applied to the understanding of substance abuse, addiction and treatment approaches in diverse populations
2. Utilize client and other data to plan addiction treatment services
3. Apply theoretical and evidence based

principles to counseling individuals and families affected by substance use

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)
- SWK 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)

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.

Dietetic Internship Program, CAS

Contact:

Debra Connolly, Director, Dietetic Internship

Program

550 White Hall

Phone: (315) 443-2386

email: dzconnol@syr.edu

Kay Sterns-Bruening, Interim Director, Dietetic Internship Program

557 White Hall

Phone: (315) 443-9326

Email: ksbrueni@syr.edu

Core Faculty:

Jennifer Wilkins

Staff:

Donna Sparkes, Administrative Assistant

Description:

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.

Upon completion of the program, graduates are eligible to take the registration examination for dietitians offered through the Commission on Dietetics Registration (CDR). Successful completion of the RD exam is usually a prerequisite for state licensure or certification.

Accreditation:

The internship is accredited by Accreditation Council for Education in Nutrition and Dietetics (ACEND) (120 S. Riverside Plaza, Suite 2000, Chicago, IL 60606; 312-879-0040; ext. 5400).

Admission:

Applicants must have earned a bachelor's degree from an institution offering an accredited didactic program in dietetics and have earned a minimum cumulative GPA of 3.0 in undergraduate coursework and 3.0 in DPD coursework.

Applicants are selected through D&D Digital Systems, a computerized matching service that serves as a clearinghouse to match internship applicants and programs. The process requires applicants to go online and register with D&D Digital before their deadline by completing an online profile and payment. Applicants rank/prioritize the list of internships after they register.

In addition to the D&D process, applicants to Syracuse University's Dietetic Internship will use the online centralized internship application found on the Dietetic Internship Centralized Application System (DICAS) website.

DICAS is an online applicant portal, for use by students who are applying to Dietetic Internship programs that participate in the DICAS Match. The DICAS Online is a service of the Academy of Nutrition and Dietetics.

A \$35 non-refundable application fee for Syracuse University students or a \$40 non-refundable application fee for non-Syracuse University applicants is required by February 15, 2017.

Financial Support:

Students only enrolled in a CAS program are not eligible for department financial aid. Additional information regarding loan availability for CAS programs can be found at <https://graduateadmissions.syr.edu/funding/>

Gainful Employment Disclosure:

For more information about our CAS graduation rates, the median debt of students who completed the program, and other important information, please visit Syracuse University Gainful Employment Disclosure page (<https://www.syracuse.edu/about/consumer-information/gainful-employment/>) and click the title of the CAS.

Transfer Credit:

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.

Student Learning Outcomes

The program's curriculum provides learning activities to attain the breadth and depth of the core competencies and program-defined concentration competencies based on accreditation standards. Below are the student learning outcomes for the program.

Upon completion of the program, students will be able to:

1. Integrate scientific information and research into practice
2. Demonstrate beliefs, values, attitudes and behaviors for the professional dietitian level of practice
3. Develop and deliver information, products and services to individuals, groups and populations
4. Apply principles of management and systems in the provision of services to individuals and organizations

CAS Program 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.

Upon completion of the program, graduates are eligible to take the registration examination for dietitians offered through the Commission on Dietetics Registration (CDR). Successful completion of the RD exam is usually a prerequisite for state licensure or certification.

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).

Transfer Credit

A maximum of three credits from a combination of transfer and/or external examinations/extra-institutional and experiential learning will be accepted toward a CAS.

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)

Food Studies, CAS

Contact:

Anne Bellows
Graduate Program Director Food Studies
545 White Hall
315-443-4228
acbellow@syr.edu

Core Faculty:

Anne Bellows, Rick Welsh, Evan Weissman,
Laura-Anne Minkoff-Zern

Staff:

Jennifer Hurley, Administrative Assistant
Elissa Johnson, Internship Placement Coordinator

Description:

The academic field of Food Studies trains students in the fast-changing landscape of international food policy as well as local food governance systems. The program at Syracuse University is characterized by the study of structural conditions of inequalities, injustice and imbalances in the food system, combined with

learning the levers of social change, including social movements, public policy, and equitably organized food and nutrition economies. Students learn how the local and global articulate with each other under diverse circumstances like climate change, trade rules, or nutrition policy and humanitarian/charity assistance.

The graduate level C.A.S. in Food Studies enhances students' employment profile in food-related fields, opening employment opportunities in: local and national government work associated with food regulation and industry relations; NGO engagement in advocacy and policy associated with the human right to adequate food, food sovereignty, food and nutrition security, and trade and food-oriented labor; economic and social development work at the community, national, and international scales; food production and distribution companies, services, and vendors in established or start-up modes.

Food Studies is an interdisciplinary field that has great relevance across traditional academic departments. Students with a C.A.S. in Food Studies will also be well prepared for advanced graduate work that focuses on food studies and systems related questions that are being asked throughout the academy.

Admission:

Students from broad inclusive fields of undergraduate study and work experience will be considered for admission. A bachelor's degree from an accredited college or university, with a cumulative GPA of 3.0 is required. The admissions process for this program will require a college transcript, a personal statement regarding interest in CAS in Food Studies and how it will fit in with student's career plans, and one letter of recommendation. GREs are not required for admission into this program. Students do not need to be enrolled in a graduate program or have a graduate degree for this Certificate of Advanced Studies (CAS) in Food Studies.

Student Learning Outcomes

1. Evaluate critically diverse historical and contemporary foundational currents of thought in food studies and systems
2. Analyze the causes, consequences, and strategies to address disparities in patterns of food production and consumption
3. Examine domestic and global agri-food governance and policies

C.A.S. Program Requirements:

C.A.S. students should begin with the required FST 601 Seminar in Food Studies and Systems and then select courses in consultation with the C.A.S. Program Director or Faculty Adviser in Food Studies.

Required Introductory Graduate Course (3 credits):

- FST 601 - Seminar in Food Studies and Systems

3 credit(s)

Required (minimum of 2 classes; 6 credits)

- 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)
- FST 706 - Gender, Food, Rights 3 credit(s)

Required Additional Course (3 credits):

Selected either from Food Studies graduate courses not already taken from the list above or from the list of directed electives below from outside the Food Studies program.

- NSD 627 - Public Health Nutrition 3 credit(s)
- NSD 756 - Food and Public Policy 3 credit(s)
- HTW 669 - Disability and Global Health 3 credit(s)
- PAI 700 - Selected Topics 1-6 credit(s) *
- GEO 685 - Community Geography 3 credit(s)
- GEO 755 - Seminar in Political Ecology 3 credit(s) **
- LSA 670 Thematic Landscape Design Studio***

*Note:

*PAI 700 is a relevant directed elective when its focus is on food security.

**GEO 755 focuses on food and agriculture case studies.

***LSA 670 is a relevant directed elective when its focus is on the design of food planning and systems, must be taken for 3 credits.

Transfer Credit:

Students may transfer up to a total of 3 credit hours. 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.

Part-time Study:

Students may matriculate as part-time students.

Total Credits Required:

12 Credits

Global Health, CAS

Contact

Brooks Gump, Director of Graduate Programs in Public Health

344H White Hall

315-443-2208,

bbgump@syr.edu

Core Faculty

Brooks B. Gump, Brittany Kmush, Sandra D. Lane, David Larsen, Katherine McDonald, Lutchmie Narine, Lisa Olson-Gugerty, Arthur Owora

Affiliated Faculty

Indu Gupta, Commissioner of Health, Onondaga County Health Department Sreekumar Nellickappilly, Ph.D.; Fulbright Scholar, Indian Institute of Technology, Madras, India

Staff

Judy Emmi, Administrative Assistant

Susan Scholl, Internship Coordinator

Melinda Stoffel, Office Coordinator

Description

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.

Admission

Applicants must have earned a bachelor's degree from an accredited institution, with a minimum cumulative GPA of 3.0 in undergraduate coursework. Requirements include an official transcript, personal statement and 2 letters of recommendation (one of which must be an academic references; the other may be a professional reference).

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

Part-Time Study

Part-time study is acceptable; however, time to degree completion depends on available course offerings and number of courses enrolled. Time limit to degree completion is 7 years.

Financial Support

Students only enrolled in a CAS program are not eligible for department financial aid. Additional information regarding loan availability for CAS programs can be found at <https://graduateadmissions.syr.edu/funding/>

Gainful Employment Disclosure

For more information about our CAS graduation rates, the median debt of students who completed the program, and other important information, please visit Syracuse University Gainful Employment Disclosure page (<https://www.syracuse.edu/about/consumer-information/gainful-employment/>) and click the title.

Transfer Credit

A maximum of three credits from a combination of transfer and/or external examinations/extra-institutional and experiential learning will be accepted toward a CAS.

Degree

CAS; 19 credit hours

Student Learning Outcomes

1. Apply theories, concepts and models from social and behavioral disciplines as they relate to global health
2. Use relevant data, information sources, and evidence based approaches to inform practice in global health
3. Plan, implement and evaluate global health programs
4. Collaborate with community members and other stakeholders to promote global health
5. Apply methods and analytic approaches used in epidemiology

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

- HTW / ANT 663 - Global Health 3 credit(s)
- HTW 604 - Comparative Health Policy 6 credit(s)

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.

School of Social Work

School of Social Work

Keith A. Alford, Director, 315-443-5562
244 White Hall

Faculty

Keith A. Alford, Maria Brown, Kendra DeLoach, Paul Caldwell, Kenneth N. Corvo, Alejandro Garcia, Eric Kingson, Karen E. Kirkhart, Tracey Musarra Marchese, Deborah J. Monahan, Nancy R. Mudrick, Carrie Jefferson Smith, Yvonne Smith, Matthew Spitzmueller, Bette Brown Thoreck

Director of Field Instruction Tracy Walker, 315-443-5565, 244 White Hall

Graduate

Contact Keith A. Alford, 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

Please note that effective Fall 2018, students will initially apply to either the MSW or MA program only, with admission to the Dual MSW/MA program at the end of year one via an internal admission process.

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), both of which must be pursued fulltime.

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 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

Keith A. Alford, MSW Program Director, 315-443-5562.

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

Program Description

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.

Requirements

Advance Clinical Practice Concentration

- SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)
- SWK 730 - Family Systems Theory 3 credit(s)
- SWK 724 - Psychopathology 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)
- SWK 771 - Field Instruction III 3 credit(s)
- SWK 772 - Field Instruction IV 3 credit(s)

Electives (9 credits)

Advanced Integrated Practice Concentration

- 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 (3 credits)*

Advanced Micro Practice (3 credits)*

Advanced Micro or Macro Practice (3 credits)*

Advanced Policy (3 credits)*

- SWK 775 - Program Evaluation 3 credit(s)

or

- SWK 776 - Clinical Practice Evaluation 3 credit(s)
- SWK 771 - Field Instruction III 3 credit(s)
- SWK 772 - Field Instruction IV 3 credit(s)

Electives (6 credits)

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)
- SWK 754 - Death, Dying, and Terminal Illness 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)

Social Work, MSW

Contact

Keith A. Alford, 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.

Student Learning Outcomes

1. Demonstrate Ethical and Professional Behavior
2. Engage Diversity and Difference in Practice
3. Advance Human Rights and Social, Economic, and Environmental Justice
4. Engage in Practice-informed Research and Research-informed Practice
5. Engage in Policy Practice
6. Engage with Individuals, Families, Groups, Organizations, and Communities
7. Assess Individuals, Families, Groups, Organizations, and Communities
8. Intervene with Individuals, Families, Groups, Organizations, and Communities
9. Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities

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

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)
- SWK 754 - Death, Dying, and Terminal Illness 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)
- 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 754 - Death, Dying, and Terminal Illness 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; cabbotth@law.syr.edu).

Social Work and Marriage and Family Therapy Dual Degree, MA/MSW

Contact:

Keith Alford, Director School of Social Work
kalford@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.

Part-time Study

Given the rigorous nature of this program only full-time study is allowed. Students who are admitted to the program and drop below fulltime as defined by the sample program plan below will not be able to continue in the dual program.

Admission

Please note that effective Fall 2018, students will initially apply to either the MSW or MA program only, with admission to the Dual MSW/MA program at the end of year one via an internal admission process.

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 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.

Student Learning Outcomes

1. Demonstrate Ethical and Professional Behavior
2. Engage Diversity and difference in Practice
3. Advance Human Rights and Social, Economic, and Environmental Justice
4. Engage in Practice-informed Research and Research-informed Practice
5. Engage in Policy Practice
6. Engage with Individuals, Families, Groups, Organizations, and Communities
7. Assess Individuals, Families, Groups, Organizations, and Communities
8. Intervene with Individuals, Families, Groups, Organizations, and Communities
9. Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities

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.

David B. Falk College of Sport and Human Dynamics

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

Degree Requirements

Students will choose one of the three sequence plans below. Variations in the chosen sequence plan is **not recommended**. Academic advising is required to alter the chosen program plan.

Sequence Plan I

SWK Start Regular/Full Time Program / 96 Credit Hours

Year 1 Fall

- SWK 601 - Fundamentals of Social Work Practice I 3 credit(s)
- SWK 671 - Field Instruction I 3 credit(s)
- SWK 626 - Persons in Social Context 3 credit(s)
- SWK 611 - Social Welfare Policy and Services 3 credit(s)
- SWK 662 - Applied Research in Social Work 3 credit(s)

Year 1 Spring

- SWK 602 - Fundamentals of Social Work Practice II 3 credit(s)
- SWK 672 - Field Instruction II 3 credit(s)
- SWK 628 - Human Diversity in Social Contexts 3 credit(s)
- SWK 730 - Family Systems Theory 3 credit(s)
- MFT 724 / SWK 724 - Psychopathology 3 credit(s)

Year 1 Summer Session 1

- MFT 681 - Marriage and Family Therapy Ethics and Issues 3 credit(s)

Year 1 Summer Session 2

- SWK 781 / MFT 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)

Year 2 Fall

- SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)
- SWK 771 - Field Instruction III 3 credit(s)
- SWK 776 - Clinical Practice Evaluation 3 credit(s)
- MFT 750 - Introduction to Marriage & Family Therapy Practicum 3 credit(s)
- MFT 661 - Introduction to Family Therapy Practice 3 credit(s)

Year 2 Spring

- SWK 733 - Social Work Practice in Mental Health 3 credit(s)
- SWK 772 - Field Instruction IV 3 credit(s)
- MFT 760 - Practicum in Marriage and Family Therapy I 3 credit(s)
- MFT 682 - Marriage and Family Therapy Theory and Techniques 3 credit(s)
- SWK 761 - Mental Health Policy 3 credit(s)

Year 2 Summer Session 1

- MFT 567 - Sexual Issues for the Helping Professional 3 credit(s)
- MFT 662 - Systems Dynamics in a Group Setting 3 credit(s)
- MFT 761 - Practicum in Marriage & Family Therapy II 3 credit(s)

Year 2 Summer Session 2

- MFT 672 - Couple Therapy: Theory and Techniques 3 credit(s)

Year 3 Fall

- MFT 762 - Practicum in Marriage and Family Therapy III 3 credit(s)
- MFT Elective
- MFT Elective

Year 3 Spring

- MFT 684 - Family Therapy Perspectives on Cultural Diversity 3 credit(s)
- MFT 688 - Family Therapy Across the Life Cycle 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)

**** Students in Sequence I have the option of taking SWK 771 in 12 week summer session followed by SWK 772 in Fall.**

Sequence Plan II

MFT Start/Regular Full Time Program / 96 Credit Hours

Year 1 Fall

- MFT 661 - Introduction to Family Therapy Practice 3 credit(s)
- MFT 750 - Introduction to Marriage & Family Therapy Practicum 3 credit(s)
- MFT 681 - Marriage and Family Therapy Ethics and Issues 3 credit(s)
- MFT 671 - Introduction to Family Systems 3 credit(s)
- SWK 626 - Persons in Social Context 3 credit(s)
- MFT Elective 1

Year 1 Spring

- MFT 682 - Marriage and Family Therapy Theory and Techniques 3 credit(s)

- MFT 760 - Practicum in Marriage and Family Therapy I 3 credit(s)
- MFT 684 - Family Therapy Perspectives on Cultural Diversity 3 credit(s)
- MFT 688 - Family Therapy Across the Life Cycle 3 credit(s)
- SWK 662 - Applied Research in Social Work 3 credit(s)

Year 1 Summer Session 1

- MFT 662 - Systems Dynamics in a Group Setting 3 credit(s)
- MFT 761 - Practicum in Marriage & Family Therapy II 3 credit(s)
- SWK 724 - Psychopathology 3 credit(s)

Year 1 Summer Session 2

- MFT 672 - Couple Therapy: Theory and Techniques 3 credit(s)

Year 2 Fall

- SWK 601 - Fundamentals of Social Work Practice I 3 credit(s)
- SWK 671 - Field Instruction I 3 credit(s)
- SWK 611 - Social Welfare Policy and Services 3 credit(s)
- MFT 762 - Practicum in Marriage and Family Therapy III 3 credit(s)

Year 2 Spring

- SWK 602 - Fundamentals of Social Work Practice II 3 credit(s)
- SWK 672 - Field Instruction II 3 credit(s)
- SWK 628 - Human Diversity in Social Contexts 3 credit(s)
- SWK 730 - Family Systems Theory 3 credit(s)
- MFT 763 - Practicum in Marriage and Family Therapy IV 3 credit(s)

Year 2 Summer Session 1

- MFT 567 - Sexual Issues for the Helping Professional 3 credit(s)

Year 2 Summer Session 2

- SWK 781 / MFT 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)
- MFT Elective 2

Year 3 Fall

- SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)
- SWK 771 - Field Instruction III 3 credit(s)
- SWK 776 - Clinical Practice Evaluation 3 credit(s)

Year 3 Spring

- SWK 733 - Social Work Practice in Mental Health 3 credit(s)
- SWK 772 - Field Instruction IV 3 credit(s)
- SWK 761 - Mental Health Policy 3 credit(s)

Sequence Plan III

Advanced Standing Full Time Program / 78 Credit Hours (eligible BSW graduates only)

Year 1 Summer

- SWK 730 - Family Systems Theory 3 credit(s)
- SWK 724 / MFT 724 - Psychopathology 3 credit(s)
- MFT 681 - Marriage and Family Therapy Ethics and Issues 3 credit(s)
- SWK 781 / MFT 781 - Alcohol and Other Drugs in Social Work Practice 3 credit(s)

Year 1 Fall

- SWK 732 - Advanced Practice with Individuals, Families and Groups 3 credit(s)
- SWK 771 - Field Instruction III 3 credit(s)
- SWK 776 - Clinical Practice Evaluation 3 credit(s)
- MFT 661 - Introduction to Family Therapy Practice 3 credit(s)
- MFT 750 - Introduction to Marriage & Family Therapy Practicum 3 credit(s)

Year 1 Spring

- SWK 733 - Social Work Practice in Mental Health 3 credit(s)
- SWK 772 - Field Instruction IV 3 credit(s)
- SWK 761 - Mental Health Policy 3 credit(s)
- MFT 682 - Marriage and Family Therapy Theory and Techniques 3 credit(s)
- MFT 760 - Practicum in Marriage and Family Therapy I 3 credit(s)

Year 2 Summer

- MFT 662 - Systems Dynamics in a Group Setting 3 credit(s)
- MFT 761 - Practicum in Marriage & Family Therapy II 3 credit(s)
- SWK Elective
- SWK Adv. Practice

Year 2 Fall

- MFT Elective
- MFT Elective
- MFT 762 - Practicum in Marriage and Family Therapy III 3 credit(s)

Year 2 Spring

- MFT 684 - Family Therapy Perspectives on Cultural Diversity 3 credit(s)
- MFT 688 - Family Therapy Across the Life Cycle 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)

Year 3 Summer

- MFT 567 - Sexual Issues for the Helping

Professional 3 credit(s)

- MFT 672 - Couple Therapy: Theory and Techniques 3 credit(s)

SWK Advanced Practice Courses and Electives

(All qualify for SWK Elective Requirement)

Adv. Practice Courses:

- 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 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 600 - Selected Topics 1-6 credit(s) Equine Assisted Activities and Therapies
- SWK 600 Selected Topics 1-6 credit(s) Aging in the Context of Family Life
- SWK 657 - Processes of Aging 3 credit(s)
- SWK 710 - Topics in Advanced Social Work Practice and Policy 1-6 credit(s)
- SWK 727 - Family Violence: Policy, Practice and Research 3 credit(s)
- SWK 737 - Strategies for Community Behavioral Health Practice 3 credit(s)
- SWK 739 - Applied Neuroscience in the Human Services 3 credit(s)
- SWK 742 - Violence, Bullying, & Trauma: Clinical Perspectives 3 credit(s)

Qualifying Electives for MFT Elective Requirement

- HTW 603 / MFT 603 - Introduction to Trauma Studies 3 credit(s)
- MFT 641 - Divorce Mediation 3 credit(s)
- MFT 642 - Therapy with LGBTQ Couples and Families 3 credit(s)
- MFT 643 - Family Therapy with Complex Trauma 3 credit(s)
- MFT 644 - Family Therapy with LGBTQ Youth 3 credit(s)
- MFT 645 - Queering Theory, History and Clinical Practice 3 credit(s)
- MFT 686 - Play Therapy with Children and Families 3 credit(s)
- MFT 687 - Spirituality in Therapy 3 credit(s)

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

Contact

Michael D. Veley, Director and Chair, 315-443-2630
402 MacNaughton Hall

Jeff Pauline, Graduate Program Director, 315-443-2630
402 MacNaughton Hall

Graduate

The Department of Sport Management offers a 36 credit hour master of science in Sport Venue and Event Management, as well as a 15 credit hour certificate of advanced study (CAS) in Intercollegiate Athletic Advising and Support.

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 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, housed in the Falk College, 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 is an interdisciplinary, collaborative initiative unique among graduate level sport management programs.

The degree will prepare students for careers in managerial aspects of professional and recreational sports, including stadium and arena facilities management; production and programming of events; marketing and public relations; technological operations management; and middle-level management, marketing and planning in the sport industry.

The CAS in Intercollegiate Athletic Advising and Support is a joint program of the Falk College and School of Education. The 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.

Facilities

The Department of Sport Management is located in MacNaughton Hall in the Falk College providing easy access to campus facilities, the Carrier Dome, and community sport venues.

Master's

Sport Venue and Event Management, MS

Contact

Jeff S. Pauline, Graduate Program Director
402 MacNaughton Hall, 315-443-2630
jspaulin@syr.edu

Core Faculty

Mary Graham, Jeeyoon Kim, Rodney Paul, Gina Pauline, Jeff Pauline, Patrick Ryan, Michael Velej, Patrick Walsh

Staff

Kaitlin Berry, Internship Coordinator
Margie Chetney, Office Coordinator
Nicole Imbrogno, Internship Coordinator
Francesco Rivero, Internship Coordinator
Kathryn M. Tunkel, Administrative Assistant

Description

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 venues and associated event planning opportunities. Instruction will center 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, housed in the Falk College, 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 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; 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

Part-Time Study

Program may be pursued on a part-time basis with department approval.

Financial Support

Limited department financial aid is available in the form of graduate assistantships and scholarship credits for students enrolled in masters and doctoral programs. Financial aid is determined based on merit.

Additional information regarding graduate financial aid can be found at <https://graduateadmissions.syr.edu/funding/>

Transfer Credit

Transfer Credit may be accepted by petition. A maximum of 30 percent of credits counted toward a master's degree at Syracuse University may be transferred from another institution

provided that the credits are an integral part of the degree program.

Degree

MS, 36 credits

Student Learning Outcomes

Upon completion of the program, students will be able to:

1. Explain, discuss, and analyze core areas of facility management
2. Explain, discuss, and analyze core areas of event management
3. Demonstrate critical thinking and problem solving skills necessary for careers in the sport industry
4. Apply the knowledge and skills learning in the core content areas to professional settings

Core Courses

- SPM 614 - Foundations of Sport Venue and Event Management 3 credit(s)
- SPM 634 - Sport Event and Hospitality Management 3 credit(s)
- SPM 635 - Marketing of Sport Venues & Events 3 credit(s)
- SPM 637 - Sport Venue Management 3 credit(s)
- 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.

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.

Certificate of Advanced Study

Intercollegiate Athletic Advising and Support, CAS

Contact

Teresa M. MacDonald
168 White Hall, 443-4822
tmmacdon@syr.edu

Core Faculty

Catherine Engstrom, Department of Higher Education; Teresa MacDonald, Department of Sport Management; Dessa Bergen-Cico, Department of Public Health; Dawn Johnson, Department of Higher Education

Staff

Margie Chetney, Office Coordinator
Kathryn M. Tunkel, Administrative Assistant

Description

The joint, 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.

Part-Time Study

The program can be pursued part-time.

Financial Support

Students only enrolled in a CAS program are not eligible for department financial aid. Additional information regarding loan availability for CAS programs can be found at <https://graduateadmissions.syr.edu/funding/>

Gainful Employment Disclosure

For more information about our CAS graduation rates, the median debt of students who completed the program, and other important information, please visit Syracuse University Gainful Employment Disclosure page (<https://www.syracuse.edu/about/consumer-information/gainful-employment/>) and click the title of the CAS.

Transfer Credit

A maximum of three credits from a combination of transfer and/or external examinations/extra-institutional and experiential learning will be accepted toward a CAS.

Degree

CAS, 15 credits

Student Learning Outcomes

Upon completion of the program, students will be able to:

1. Apply a broad and comprehensive 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, governance, 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)

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.

Notes:

Upon acceptance to the proposed CAS, students will take at least one required course or program elective in consecutive semesters until program requirements are completed.

Students will maintain a cumulative grade point average of 3.0 in program courses.

Falk Courses

CFS 534 - Practcm/Early Childhood Ed

Human Development and Family Science
3 credit(s) Irregularly
Planning and implementing curriculum for prekindergarten or kindergarten children. Fieldwork and seminar.

CFS 535 - Quality Infant Care Giving

Human Development and Family Science
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

Human Development and Family Science
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.

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 Mdl:Inf&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&Applc

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

Human Development and Family Science

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 Chld

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 - Language Development in Children & Families

Child and Family Studies

3 credit(s) Irregularly
Double Numbered with: CFS 365
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/Cltlrl 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 682 - Development in Immigrant & Refugee Families

Human Development and Family Science

3 credit(s) Irregularly
Double Numbered with: CFS 482
Family functioning in immigrant and refugee families. Psychosocial adjustment, physical health and well-being, economic conditions, employment patterns, parent-child relationships, schooling, identity, and community relations. Additional work required of graduate students.

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 736 - Development of Self-Regulation in Children and Youth

Human Development and Family Science

3 credit(s) Irregularly
Foundation in the development of regulatory process in children; different facets of self-regulation; effortful control, executive function, and emotional regulation; predictors of self-regulation and benefits of these skills

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 996 - Masters Project

Child and Family Studies
3 credit(s)

CFS 997 - Masters Thesis

Human Development and Family Science
3 credit(s) Every semester
Masters Thesis

CFS 999 - Dissertation

Child and Family Studies
1-15 credit(s) Every semester
Repeatable 14 time(s), 15 credits maximum

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.

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 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 788 - Systemic Family Therapy with Military Families

Marriage and Family Therapy

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

Systemic family therapy with veterans and military families. Emphasis on evidence-based and trauma-informed clinical practice.

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

MFT 996 - Doctor of Practice in Couple and Family Therapy Capstone

Marriage and Family Therapy

3 credit(s) Every semester

Integration of theoretical, research and practice

skills through the development of a written capstone proposal and an oral presentation. Students must take the capstone twice for a total of 6 credits. Students must complete 18 program credits before beginning capstone. Repeatable 1 time(s), 6 credits maximum

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

Food Studies

FST 600 - Selected Topics

Public Health, Food Studies and Nutrition
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

FST 601 - Seminar in Food Studies and Systems

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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.

FST 797 - Practicum in Food Studies and Systems

Public Health, Food Studies and Nutrition
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 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 630 - Introductory Biostatistics

Public Health, Food Studies and Nutrition
3 credit(s) At least 1x fall or spring
An introduction to commonly used methods for analyzing public health data. Use of statistical and graphical software will be emphasized.

HTW 631 - Intermediate Biostatistics

Public Health, Food Studies and Nutrition
3 credit(s) At least 1x fall or spring
Univariate statistical techniques, to include multiple linear and logistical regression, for analyzing health data with a single outcome variable with covariates. Use of statistical software will be emphasized.
PREREQ: HTW 630

HTW 632 - Advanced Biostatistics

Public Health, Food Studies and Nutrition
3 credit(s) At least 1x fall or spring
Conduct statistical analysis of public health related time-to-event data and counts data, and conduct meta-analysis as they relate to public health data.
PREREQ: HTW 631

HTW 633 - Spatial statistics for public health

Public Health, Food Studies and Nutrition
3 credit(s) At least 1x fall or spring
Statistical approaches to the analysis of public health related spatial data.
PREREQ: HTW 630

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

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 and Global Health

Public Health, Food Studies and Nutrition
3 credit(s) At least 1x fall or spring
Crosslisted with: DSP 669
Major theories, historical events, laws, and research related to health and wellness worldwide among those living with disabilities.

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 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: HTW 630

HTW 997 - Master's Thesis

Public Health, Food Studies and Nutrition
3 credit(s) At least 1x fall or spring
Written document exhibiting substantive and original research in Public Health. Planned under direction of major departmental advisor.

Nutrition Science and Dietetics

NSD 500 - Selected Topics

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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 516 - Nutrition Counseling Experience

Public Health, Food Studies and Nutrition
1 credit(s) Every semester
An applied interaction to develop nutrition counseling skills for working with a variety of individuals for health promotion, disease prevention in preparation for conducting medical nutrition therapy.
PREREQ: NSD 512
Repeatable 1 time(s), 2 credits maximum

NSD 555 - Food, Culture and Environment

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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 637 - Integrative and Functional Nutrition

Public Health, Food Studies and Nutrition

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

A focus on patient centered care using a combination of conventional evidence based medical nutrition therapies that recognize genetic uniqueness, core physiological imbalances and the role of the environment in health and disease.

PREREQ: NSD 665 AND NSD 667

NSD 647 - Weight Management, Obesity and Disordered Eating

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

1-3 credit(s) Every semester

Repeatable 1 time(s), 6 credits maximum

NSD 665 - Metabolism of Micronutrients

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Metabolic interrelationships and control in the use of proteins, carbohydrates, and lipids.

NSD 667 - Metabolism of Macronutrients

Public Health, Food Studies and Nutrition

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

An overview of the structure and function of the major macronutrients (proteins, carbohydrates, and lipids) in the maintenance of human health. Introduction to metabolic pathways and the principles of cellular bioenergetics in the regulation and utilization of energy nutrients.

NSD 670 - Experience Credit

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition

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

Public Health, Food Studies and Nutrition
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

NSD 683 - Medical Nutrition Therapy II

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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 685 - Nutritional Genomics

Public Health, Food Studies and Nutrition
3 credit(s) At least 1x fall or spring
An advanced study of the effects of genetic variation on optimal nutrient intake and the nutritional regulation of metabolic pathways.

NSD 690 - Independent Study

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
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

Public Health, Food Studies and Nutrition
1-6 credit(s) Every 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 603 - Social Work and the Human-Animal Bond

School of Social Work
3 credit(s) At least 1x fall or spring
Double Numbered with: SWK 403
Introduction to theory and research on the roles of human-companion animal relationships in social work and biopsychosocial well-being. Additional work required of graduate students.

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 627 - Introduction to Military Culture and Social Work Practice

School of Social Work
3 credit(s) At least 1x fall or spring
Double Numbered with: SWK 427
Introduction to military culture and social work practice with military service members, veterans, and their families. Classroom instruction on understanding military culture and providing clinically and culturally competent services. Additional work for graduate students.

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
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 718 - Working with Animals in the Human Services: Observation and Practices

School of Social Work
3 credit(s) Only during the summer
Individual projects requiring intensive observation, study, or active participation in settings where animals are part of human service delivery. Linkage of theory and findings in research literature to social work practice.
PREREQ: SWK 601 AND SWK 603

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

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.

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

COREQ: SWK 771

SWK 754 - Death, Dying, and Terminal Illness

School of Social Work

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

Death, dying, terminal illness, and coping with trauma and loss as it impacts the individual, family, and identified social networks. Social work practice, theory, and ethics surrounding the dying process. Consideration of companion animals.

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.

COREQ: SWK 732 OR SWK 743

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 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 602

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.

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 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 637 - Sport Venue Management

Sport Management
3 credit(s) At least 1x fall or spring
Double Numbered with: SPM 437
Planning and managing different types of sport facilities. Understanding the complexity of conceptualizing, constructing, promoting, managing and maintaining modern sport stadiums, arenas, domes and multi-purpose facilities. Additional work required of graduate students.

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 649 - Technologies in Game Day Operations

Sport Management
3 credit(s) At least 1x fall or spring
Double Numbered with: SPM 449
Current applications of technology as it relates to sport venues and sport organizations will be examined. Topics include: sound systems, ticketing systems, video and score board operations, and lighting systems. Additional work required of graduate students.

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 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

School of Information Studies

Elizabeth D. Liddy, Dean & Trustee Professor
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 phenomenon. The iSchool at Syracuse University, 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 continually updated to meet future industry trends and incorporate rapidly changing technologies.

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, enterprise and cloud computing, 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 focuses on how organizations interact with each other and exchange 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 use of information systems and technologies.

The School of Information Studies offers the following degree programs:

Undergraduate

- Information Management and Technology, 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
- Information Technology, Design, and Startups Minor

Graduate

- Applied Data Science, MS
 - Enterprise Data Systems, MS
 - Library and Information Science, MS
 - Library and Information Science: School Media, MS
 - Information Management, MS
 - Telecommunications and Network Management, MS*
 - Information Science and Technology, PhD
- *The Telecommunications and Network Management program is not currently accepting new applicants.

Certificates of Advanced Study

- Data Science, CAS
- E-Government Management and Leadership, CAS
- Information Security Management, CAS
- School Media, CAS

Message From the Dean

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 is 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.

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 global companies, governments and organizations 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 and to develop forward-looking policies and guidelines for libraries and other organizations. Our school media faculty members and graduates are changing policies to improve the quality of education and to motivate learning in students of all ages.

Our faculty and alumni of the telecommunications and network management program are reshaping Internet governance and telecommunications policies around the globe, securing our networks and information systems, and expanding access to information communication and technology through innovative product design and implementation.

Our faculty members are masters of many academic fields and work across traditional disciplinary lines, and 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.

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 goal 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. 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 a lasting contribution to our field. In building our school we concentrate on building an abiding 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, and Internet protocol version 6.
- **Center for Digital Literacy CDL** is an interdisciplinary, collaborative research and development center 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 interdisciplinary 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 computing systems, and develop original designs that either enable new forms of user/social interaction or impact existing user/social interaction.
- **Smart Grid Project Center** researchers seek to understand the impact of merging information technologies with the electric grid. Integration of these technologies creates a smarter grid, providing opportunities for the energy industry to improve its reliability and efficiency.

Our faculty members embrace innovation and entrepreneurial thinking in their research. The iSchool supports the Syracuse Student Sandbox incubator, and works closely with the Blackstone Launchpad, a campus-based experiential entrepreneurship program open to students, alumni, staff, and faculty, offering coaching, ideation and venture creation support.

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 and cafe.

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 our 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

School of Information Studies

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 merges physical space for co-working and hosting events, and a resource hub supporting 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 iSchool's 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.

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 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

School of Information Studies

self-evaluation process, been reviewed by peers, and meets the standards established by the American Library Association and Committee on Accreditation.

The iSchool is also a registered Project Management Institute Education Provider, meaning that the school's curriculum meets an international standard of best practice in the field of project management.

iSchools Organization

We are a founding member of the iSchools Organization an educational organization consisting of deans from over 80 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

Applied Data Science, MS

Contacts

Carsten Oesterlund
Program Director
309 Hinds Hall
(315) 443-8773
coesterlu@syr.edu

Arthur Thomas
Associate Dean for Academic Affairs
School of Information Studies
110A Hinds Hall
315-443-3840
apthomas@syr.edu

Don Harter
Associate Dean, Masters Programs
Whitman School of Management
Graduate Programs, Room 315
315-443-3502
dharter@syr.edu

Faculty

School of Information Studies Faculty: Bei Yu, Yang Wang, Jeff Saltz, Joon Park, Jeff Hemsley, Nancy McCracken, Lu Xiao, Michael Fudge, Martha Garcia-Murillo, Gary Krudys

Whitman School of Management Faculty: Donald E. Harter, Anna Chernobai, Dinesh Gauri, Thomas Barkley, Mary Ann Monforte, John Park, Lai Xu, Reja Velu

Description

Offered jointly by the School of Information Studies and the Martin J. Whitman School of Management, the Master of Applied Data Science degree program is designed to be a professional program of study, with a strong emphasis on the applications of data science to

enterprise operations and processes, particularly in the areas of data capture, management, analysis and communication for decision making.

Admission

All candidates should have a bachelor's degree or equivalent. In addition, it is recommended that potential students have a strong background in a data-intensive domain such as business, science, statistics, research, or information technology. The online program may be of particular interest to early- or mid-career professionals who cannot, or prefer not to, relocate. Applicants should have an interest in interdisciplinary work focused on managing large data sets using information technologies as tools to enable solutions for such organizations as business and public enterprises. 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.

Graduate Program Application

\$75 non-refundable application fee

Official academic credentials

500-word personal statement

Two (2) letters of recommendation

Required exam scores: GRE General Exam Scores (We can accept GMAT or LSAT scores in lieu of GRE scores, although GRE General Exam scores are preferred.); TOEFL or IELTS (international students only)

Resume or Curriculum Vitae (CV)

Video Submission (optional)

Financial documents (international students only)

Financial Support

Merit scholarships are available for the on campus program.

Facilities

Current classrooms, computer labs and laptop carts within the School of Information Studies and the Whitman School are available for this program; Online facilities provide complete coverage of all required course activities.

Degree Awarded

MS in Applied Data Science

Student Learning Outcomes

Successful students in the Master's of Applied Data Science program will be able to:

1. Describe a broad overview of the major practice areas in data science.
2. Collect and organize data.

3. Identify patterns in data via visualization, statistical analysis, and data mining.

4. Develop alternative strategies based on the data.

5. Develop a plan of action to implement the business decisions derived from the analyses.

6. Demonstrate communication skills regarding data and its analysis for managers, IT professionals, programmers, statisticians, and other relevant professionals in their organization.

7. Synthesize the ethical dimensions of data science practice (e.g., privacy).

Program Requirements

Common Core

The Common Core (18 credits) includes foundational knowledge in databases, data analysis and business analytics. Students will complete Common Core courses in an order which builds foundational knowledge and skills in preparation for more advanced work.

- IST 565 - Data Mining 3 credit(s)
- IST 659 - Data Administration Concepts and Database Management 3 credit(s)
- IST 687 - Introduction to Data Science 3 credit(s)
- IST 718 - Advanced Information Analytics 3 credit(s)
- SCM 651 - Business Analytics 3 credit(s)

Applications Analytics Core

The Applications Analytics Core (3-6 credits*) provides an opportunity for the student to choose one or two functional area specializations in accounting analytics, financial analytics, marketing analytics, and supply chain analytics. Students will complete one or two chosen Application Analytics Core course(s) as a way to develop deeper exploration of particular application area(s) for data science techniques.

- ACC 652 - Accounting Analytics 3 credit(s)
- MAR 653 - Marketing Analytics 3 credit(s)
- FIN 654 - Financial Analytics 3 credit(s)
- SCM 702 - Principles of Management Science 3 credit(s)

*A similar applied analytics course in a different application domain may be included if approved by both schools.

Electives

The Electives (12-15 credits) include coursework in linear models, time series, scripting for data analysis, natural language processing, information visualization, data warehouse, text mining, advanced database management and information policy.

- MAS 766 - Linear Statistical Models I: Regression Models 3 credit(s)

School of Information Studies

- MAS 777 - Time Series Modeling and Analysis 3 credit(s)
- IST 618 - Information Policy 3 credit(s)
- IST 623 - Introduction to Information Security 3 credit(s)
- IST 652 - Scripting for Data Analysis 3 credit(s)
- IST 664 - Natural Language Processing 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)

Portfolio Requirement

Students will also complete a Portfolio to provide an assessment of learning for their program. Students will choose assignments and projects worked on in courses during the course of study which reflect abilities specified in the program learning outcomes for inclusion in their personal portfolio. A panel of faculty who teach the courses included in the program will review the portfolios of graduates during the students' final term. The panel will approve the portfolio for each student as a transcript milestone required for the degree.

Total Credits Required: 36

Transfer Credits

6 credits in related coursework can be transferred from other universities with the approval of the Program Director.

Part-Time Study

U.S. citizens, and non-citizens with the appropriate visa and/or immigration permissions for part-time study, may pursue this program on a part-time basis.

Satisfactory Progress

Students are required to have a 3.0 grade point average or higher to maintain satisfactory progress.

Notes:

On-campus courses are delivered through the traditional semester format in which students take courses in the fall and spring semester, with optional internships in the summer. Section sizes for on-campus classes range from 20-45 students. Online courses are delivered with four (4) starts per year, where courses run for 11 weeks with required contact hours achieved through a mix of asynchronous and synchronous course interaction. Online section sizes run from 12-18 students.

Computational Linguistics, MS

Computational Linguistics

Gerald Greenberg

ggreenbe@syr.edu

441 Hall of Languages

315-443-2875

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 includes 3 or 6 credits in 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

School of Information Studies

- 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.

Enterprise Data Systems, MS

Carlos E. Caicedo Bastidas, Faculty Curriculum Lead, 215 Hinds Hall, 315-443-2911

Carsten Oesterlund, Program Director, 309 Hinds Hall, 315-443-2911, igrad@syr.edu

Website:

<https://ischool.syr.edu/academics/graduate/masters-degrees/ms-in-enterprise-data-systems/>

Overview:

The MS in Enterprise Data Systems (EDS) from the iSchool is designed for students who want to prepare professionally to manage, design, support and optimize the infrastructure that supports the digital enterprise. EDS teaches both conventional and future network infrastructures, along with the devices, services, protocols, standards, and applications that are transforming

the enterprise.

The Gartner Organization predicts that by 2018, growth and use of mobile, social media, sensors, and big data will have resulted in an Internet of Things (IoT) that connects billions of devices through networks throughout the world. This level of connectivity has created a demand for skilled professionals who understand cloud computing and have the ability to design, configure, and manage modern digital enterprise cloud environments.

Enterprise Data Systems at the iSchool is a unique program that provides a wide variety of opportunities in IT and data-centric organizations in sectors, such as finance, consulting, health, and more.

Learning Outcomes:

After completing this program, students will be able to:

- Apply management techniques, policies, technologies, and methods to integrate data intensive processes with the data processing and communication infrastructure that can support them.
- Plan, configure and manage information services which support the operation and scalability of secure enterprise information environments.
- Design, configure, and manage cloud, hybrid, and on-premises based information services in digital enterprise environments.
- Plan, configure and manage interconnected, virtual, and software defined networked environments.
- Evaluate solutions and systems for the analysis and management of data within an enterprise environment
- Create integrated solutions for the support of data collection, analysis, modeling and reporting tasks in digital enterprise data environments
- Demonstrate in-depth competence in at least one chosen focus area where knowledge and skills are applied to a particular domain of enterprise data systems.

Curriculum:

This master's program requires the completion of 36 credit hours. The 36 credit hours include a primary core composed of 21 required course credits and a non-credit residency milestone, 12 secondary focus area credits and 3 exit requirement credits. All courses are three credits unless specified otherwise.

The five secondary focus areas and the courses mentioned for each area are key to educating individuals who can achieve detailed understanding of the requirements and issues related to the design and management of current and future information system infrastructures (cloud, virtualized information systems, software defined networks, etc.) and services in digital enterprise environments.

I. Primary Core: (21 credits)

This set of seven courses gives students an understanding and solid background of key concepts and procedures required to understand the technical, security, policy and management principles of current and future information systems.

- IST 614 - Management Principles for Information Professionals 3 credit(s)
- IST 615 - Cloud Management 3 credit(s)
- IST 618 - Information Policy 3 credit(s)
- IST 623 - Introduction to Information Security 3 credit(s)
- IST 651 - Scripting for Ent Data Sys 3 credit(s)
- IST 658 - Advanced Enterprise Network Management 3 credit(s)
- IST 687 - Introduction to Data Science 3 credit(s)

II. Secondary Focus Areas (choose 12 credits)

Note: In addition to the following, students may also create a custom secondary focus area with advisor guidance and approval of the program director.

Cloud and Virtualized Information Environments

The courses in this focus area concentrate on planning, designing, and managing modern and future networked and information environments that rely on virtualized and software defined concepts.

- IST 639 - Enterprise Technologies 3 credit(s)
- IST 643 - Enterprise Services and Virtualized Systems 3 credit(s)
- IST 647 - Network Virtualization 3 credit(s)
- IST 714 - Cloud Architecture 3 credit(s)
- IST 726 - Enterprise Architecture: Concepts and Practice 3 credit(s)

Data Science Infrastructure & Applications

The courses in this focus area concentrate on topics related to the processing, management, and analysis of data and the information infrastructure and services that support modern enterprise data environments.

- IST 659 - Data Administration Concepts and Database Management 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 769 - Advanced Database Administration Concepts and Database Management 3 credit(s)
- IST 777 - Statistical Methods in Information Science and Technology 3 credit(s)

Enterprise IT Infrastructure

Management

The courses in this focus area provide students with the capabilities to plan, analyze, and manage current and future enterprise IT information environments along with an understanding of the economic policy, risk and technical implications of their deployment and management.

- IST 619 - Applied Economics for Information Managers 3 credit(s)
- IST 625 - Enterprise Risk Management 3 credit(s)
- IST 643 - Enterprise Services and Virtualized Systems 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 683 - Managing Information Technology-Enabled Change 3 credit(s)

Information Security Management

The courses in this focus area concentrate on topics related to the planning, analysis and management the information security policies, applications and infrastructure for modern and future enterprise information environments.

- IST 602 - Digital Forensics 3 credit(s)
- IST 634 - Security in Networked Environments 3 credit(s)
- IST 724 - Database Security 3 credit(s)
- IST 728 - Information Security Policy 3 credit(s)

Mobile Services and Applications

The courses in this focus area concentrate on topics related to the planning, analysis, and management of enterprise mobile services and applications.

- IST 556 - Mobile Network Services 3 credit(s)
- IST 643 - Enterprise Services and Virtualized Systems 3 credit(s)
- IST 648 - Enterprise Wireless Network Technologies 3 credit(s)
- IST 651 - Scripting for Ent Data Sys 3 credit(s)
- CSE 691 - Special Problems in Computer Systems Engineering 1-4 credit(s)

III. Graduate Residency Milestone:

This is a 2 to 3 day workshop that presents emerging topics in the information studies field. The workshop topics and presentations are designed to bring together students from all graduate programs in the school, feature guest speakers from commercial, government, community and educational organizations, and which are organized and coordinated by a lead faculty member. Two residency workshops will be delivered in the school per calendar year. Students in the MS-EDS program must complete one residency workshop during the duration of their program of studies.

IV. Exit Requirement: (3 credit hours)

The exit requirement is a capstone project-based course that can be taken after completion of 18 core course credits and the residency milestone. In this capstone course, the student and the supervising faculty member for the course set milestones and deliverables for a project that must cover at least three of the five focus areas of the program.

- IST 754 - Capstone Project in Enterprise Data Systems 3 credit(s)

Student project ideas/ requirements may come from:

- Projects that are within the scope of work of the iSchool research centers and have been approved by the supervising faculty member of the course
- Projects in external organizations that have been approved by the supervising faculty member of the course
- Independent projects developed jointly by the student and a faculty member, and that are approved by the supervising faculty member of the course.

Note: The first 2 to 4 weeks of the course will cover basic research methods theory and topics on document elaboration and presentation skills for professional environments.

Information Management, MS

Contact:

Carsten Oesterlund, Program Director,
309 Hinds Hall, 315-443-2911, igrad@syr.edu

Website:

<https://ischool.syr.edu/academics/graduate/masters-degrees/ms-in-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 (MS-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 MS-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:

MS-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:

MS-IM graduates have a diverse set of skills that enable them to participate at all levels of information technology management. They are expected to acquire competencies in the following:

- Management of Technology: Integrate technical and solution development concepts with the principles of management, strategy, and financial analysis; apply these concepts in the analysis of management case studies and problems; analyze, compare, evaluate, and clearly articulate the relative value of IT investment alternatives.
- Management of Solution Development: Apply disciplines used in the development of information system solutions, to solve organizational and business problems.
- Technical Knowledge: Apply information and computing technologies to solve information problems at the individual and organizational levels.
- Environmental Context of IM: Explain how demographic, social, economic and ethical factors, as well as local, national and international information policy and regulation affect Information Technology solutions.
- Professional Communication Skills: Develop and deliver professional communications in the field.
- Leadership and Teamwork Development: Demonstrate leadership, ethics, and effective collaboration skills.

- Information Literacy, Analysis, and Problem Solving: Find, organize, manage, evaluate, and use information resources critically and effectively for the solution of professional problems.

Student Learning Outcomes

1. Management of Technology: Integrate technical and solution development concepts with the principles of management, strategy, and financial analysis. Apply these concepts in the analysis of management case studies and problems. Analyze, compare, evaluate, and clearly articulate the relative value of IT investment alternatives.

2. Management of Solution Development: Apply disciplines used in the development of information system solutions, to solve organizational and business problems.

3. Technical Knowledge: Apply information and computing technologies to solve information problems at the individual and organizational levels.

4. Environmental Context of IM: Explain how demographic, social, economic and ethical factors, as well as local, national and international information policy and regulation affect IT solutions.

5. Evolution of the IM Field: Describe the history and current state of the management of information technology. Create and evaluate plausible scenarios for the future evolution of technology and the field.

6. Professional Communication Skills: Develop and deliver professional communications in the field.

7. Leadership and Teamwork Development: Demonstrate effective collaboration skills.

8. Information Literacy, Analysis, and Problem-Solving: Find, organize, manage, evaluate, and use information resources effectively for the solution of professional problems.

Curriculum:

The MS-IM program is undergoing curriculum changes, expected to be finalized during the 2017-2018 academic year. Please refer to the MS-IM Advising check sheet or Advising Handbook on the iSchool website for the most up to date curriculum list. <https://ischool.syr.edu/academics/advising/handbooks-checksheets/>.

The curriculum requires 42 graduate credits. All courses are 3 graduate credits unless specified otherwise.

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. Listed below are guidelines for credit reductions and substitutions on the basis of the students professional full-time work experience. 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.

I. Primary core (10 credits)

IST 614 and IST 621 must be taken the first semester of the student's program, unless specifically advised otherwise. It is recommended students take IST 618 in their second or third semester.

- 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)

Courses other than those listed below may apply to the Secondary Core. A formal Petition is required for students who want to count a course towards the MS-IM program that is not listed in the curriculum. Please email iAdvising@syr.edu to learn more about the Petition process.

Management Approaches and Strategies Track (6 credits)

- IST 619 - Applied Economics for Information Managers
- IST 645 - Managing Information Systems Projects
- IST 654 - Information Systems Analysis

Technological Infrastructure Track (6 credits)

- IST 639 - Enterprise Technologies
- IST 659 - Data Administration Concepts and Database Management

User Information Needs Track (3 credits)

- IST 553 - Information Architecture for Internet Services
- IST 617 - Motivational Aspects of Information Use
- IST 631 - Theory of Classification and Subject Representation
- IST 641 - User-Based Design
- IST 649 - Human Interaction with Computers
- IST 662 - Instructional Strategies and Techniques for Information Professionals

III. Electives (8 to 11 credits)

All iSchool courses are acceptable electives towards the MS-IM program, including 'Selected Topics' courses, listed as IST 500, 600, or 700. These courses are offered based on sufficient interest of a topic and not covered by standard curriculum but of interest to faculty and students in a particular semester. In addition, students are allowed to take up to 6 elective credits from other schools at Syracuse University, such as the Whitman School of Management or the College

of Engineering and Computer Science.

IV. Exit Requirement (3 to 9 credits)

- IST 755 - Strategic Management of Information Resources
- * 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.

Guidelines for Credit Reductions and Substitutions

- Students with one to three years of full-time professional experience in the information technology field may substitute the internship requirement for another 3-credit course. Your resume is required, and we may also request joining-leaving letters which may be audited. Please email iAdvising@syr.edu to learn more about this process.
- Students with a minimum of three years of full-time professional experience in the information technology field may reduce the credit requirement of the program by three credits, substituted by work experience. Your resume is required and we may also request joining-leaving letters which may be audited. Please email iAdvising@syr.edu to learn more about this process.

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:

<https://ischool.syr.edu/academics/graduate/masters-degrees/ms-information-management-for-executives/>

Overview:

The Master of Science (MS) in Information Management for Executives (EXIM) at the Syracuse University School of Information Studies (iSchool) is a 30-credit degree program that offers our MS in Information Management (MSIM) degree at a reduced course load to students with **six or more years** of appropriate full-time, professional experience in the information management field. Our Executive IM program will confer a Master's of Science in Information Management.

School of Information Studies

The iSchool's Information Management for Executives program offers:

- **Flexibility.** Earn the degree completely online, take classes on campus, or combine the two to perfectly fit your schedule.
- **Quality.** Take classes from the same accomplished faculty who teach in our 42-credit Master's in Information Management program.
- **Individuality.** Tailor your coursework to fill knowledge gaps, or deepen your existing knowledge to develop a specialty.
- **Marketability.** Add a degree from the No. 1 ranked school in information systems to your resume.

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.

Eligibility:

To be eligible for the executive program, applicants must be strong candidates for leadership roles in the information Management field, as demonstrated by at least six years of relevant experience and a record of continually increasing job responsibilities.

Curriculum:

The MS-EXIM program is undergoing curriculum changes, expected to be finalized during the 2017-2018 academic year. Please refer to the MS-EXIM Advising check sheet on the iSchool website for the most up to date curriculum list.
<https://ischool.syr.edu/academics/advising/handbooks-checksheets/>.

The 30-credit curriculum for students in the M.S. in Information Management: Executive Track (MS-EXIM) includes:

Primary Core (9 credits)

Secondary Core (9 credits)

Electives (9 credits)

Exit Requirement (3 credits)

The curriculum requires 30 graduate credits. All courses are 3 graduate credits unless specified otherwise.

I. Primary Core (9 credits)

Students can choose 9 credits in one track, or a mix of all three. Courses other than those listed below may apply to the Primary Core. A formal Petition is required for students who want to count a course towards the MS-EXIM program that is not listed in the advising check sheet. Please email iAdvising@syr.edu to learn more about the Petition process.

Management and Financial Track

- IST 619 - Applied Economics for Information Managers
- IST 625 - Enterprise Risk Management
- IST 645 - Managing Information Systems Projects
- IST 683 - Managing Information Technology-Enabled Change
- IST 726 - Enterprise Architecture: Concepts and Practice
- IST 727 - Information Technology Capital Planning
- IST 745 - Project Portfolio and Program Management
- IST 617 - Motivational Aspects of Information Use
- IST 631 - Theory of Classification and Subject Representation
- IST 634 - Security in Networked Environments
- IST 641 - User-Based Design
- IST 649 - Human Interaction with Computers
- IST 662 - Instructional Strategies and Techniques for Information Professionals
- IST 683 - Managing Information Technology-Enabled Change
- IST 800 - Information Studies Seminar

Policy Track

- IST 618 - Information Policy 3 credit(s)
- IST 686 - Social Media in the Organization 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 625 - Enterprise Risk Management
- IST 645 - Managing Information Systems Projects
- IST 654 - Information Systems Analysis
- IST 679 - Electronic Commerce Technologies
- IST 683 - Managing Information Technology-Enabled Change
- IST 711 - e-Government
- IST 726 - Enterprise Architecture: Concepts and Practice
- IST 745 - Project Portfolio and Program Management

Technological Infrastructure Track

- IST 558 - Technologies in Web Content Management
- IST 565 - Data Mining
- IST 623 - Introduction to Information Security
- IST 634 - Security in Networked Environments
- IST 639 - Enterprise Technologies
- IST 659 - Data Administration Concepts and Database Management
- IST 679 - Electronic Commerce Technologies
- IST 700 - Selected Topic
- IST 704 - Applied Information Security
- IST 722 - Data Warehouse
- IST 724 - Database Security
- IST 769 - Advanced Database Administration Concepts and Database Management

User Information Needs Track

- IST 553 - Information Architecture for Internet Services

III. Electives (9 credits)

All iSchool courses are acceptable electives towards the MS-EXIM program, including 'Selected Topics' courses, listed as IST 500, 600, or 700. These courses are offered based on sufficient interest of a topic and not covered by standard curriculum, but of interest to faculty and students in a particular semester. Students are allowed to take up to 6 elective credits from other schools at Syracuse University, such as the Whitman School of Management or the College of Engineering and Computer Science. 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
- *IST 755, the MS-EXIM capstone course, must be taken after the completion of at least 24 credits in the degree program.
- IST 755 - Strategic Management of Information Resources 3 credit(s)

Library and Information Science, MS

Contact:

Caroline Haythornthwaite, Program Director,
225 Hinds Hall, (315) 443-2911, 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

School of Information Studies

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.

Student Learning Outcomes

1. In different library and information contexts, apply theory, conceptual principles, and scholarly research;

2. In different library and information contexts, engage in teaching, service, and research.

3. Manage information resources through identification, selection, and acquisition

4. Manage information resources through organization and description

5. Manage information resources through retrieval, provision of access, storage, and preservation

6. Manage information resources through analysis, interpretation, and evaluation of an existing collection.

7. Create and manage user-centered information services and systems to meet the needs of changing and diverse communities of users by analyzing the information needs of the individuals and communities in the context of the demographic, social, economic, and ethical factors

8. Create and manage user-centered information services and systems to meet the needs of changing and diverse communities of users by discovering and synthesizing existing resources, systems, and services

9. Create and manage user-centered information services and systems to meet the needs of changing and diverse communities of users by developing and disseminating new resources, systems, and services. “

10. Collaborate with future members of other information professions to apply basic and applied research from related information fields.

11. Debate local, national, and international information issues, and policies, and regulations in a cross-discipline digital and global society.

12. Communicate appropriately to individuals and groups through group discussions and

presentations.

13. Learn about, select, and join appropriate professional organizations for their specialties.

14. Apply teamwork, management, and leadership principles both conceptually to library and other information settings and in collaboration with other students through group projects.

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 specialization 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) or Immersion Milestone Event for students matriculating after 3/1/2017

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 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 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 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 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 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 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

School of Information Studies

- credit(s)
- IST 676 - Foundations of Digital Data 1-3 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)

III. Exit Requirement (3 credits)

The exit requirement for the LIS degree is a three-credit internship, IST 971 or independent study, IST 690.

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 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:

Caroline Haythornthwaite, Program Director,
250 Hinds Hall, (315) 443-2911, 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:

- designing, delivering, and assessing instruction that motivates students to acquire and use skills needed for learning in an information environment.
- planning inquiry-based learning experiences.

- selecting and using information resources and instructional technologies to facilitate student motivation and inquiry-based learning.
- connecting instruction to national and state standards.
- integrating instruction across the curriculum.
- providing instructional leadership, collaboration, and support in the area of information and inquiry skills in schools and districts.
- 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 inquiry-based 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. The School of Information Studies has developed a competency-based academic program, based on the New York State Teaching Standards and leading to New York State certification as a school library media specialist.

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

Knowledge of learners and learning

Effective and knowledgeable teacher

Instructional partner

Integration of twenty-first century skills and learning standards

Standard 2: Literacy and Reading

Literature

Reading promotion

School of Information Studies

Respect for diversity

Literacy strategies

Standard 3: Information and Knowledge

Efficient and ethical information-seeking behavior

Access to information

Information technology

Research and knowledge creation

Standard 4: Advocacy and Leadership

Networking with the library community

Professional development

Leadership

Advocacy

Standard 5: Program Management and Administration

Collections

Professional Ethics

Personnel, Funding, and Facilities

Strategic Planning and Assessment

Student Learning Outcomes

1.A.1 Understand impact of learning styles, stages of human growth and development, and cultural influences on learning. (AASL/NCATE, 2010, 1.1)

1.A.2 Assess learner needs and design instruction that reflects educational best practice. (AASL/NCATE, 2010, 1.1)

1.A.3 Support the learning of all students and other members of the learning community, including those with diverse learning styles, physical and intellectual abilities and needs. (AASL/NCATE, 2010, 1.1)

1.A.4 Connect 21st century skills instruction to student interests and learning needs and link it to the assessment of student achievement. (AASL/NCATE, 2010, 1.1)

1.B.1 Implement the principles of effective teaching and learning that contribute to an active, inquiry-based approach to learning. (AASL/NCATE, 2010, 1.2)

1.B.2 Use a variety of instructional strategies and assessment tools to design and develop digital-age learning experiences and assessments in partnership with teachers and other educators. (AASL/NCATE, 2010, 1.2)

1.B.3 Communicate and document the impact of collaborative instruction on student achievement. (AASL/NCATE, 2010, 1.2)

1.C.1 Model, share, and promote effective principles of teaching and learning as collaborative partners with other educators. (AASL/NCATE, 2010, 1.3)

1.C.2 Participate in curriculum development and engage in school improvement processes. (AASL/NCATE, 2010, 1.3)

1.C.3 Offer professional development to other educators as it relates to library and information use. (AASL/NCATE, 2010, 1.3)

1.D.1 Advocate for 21st century literacy skills to support the learning needs of the school community. (AASL/NCATE, 2010, 1.4)

1.D.2 Demonstrate how to collaborate with other teachers to plan and implement instruction of the AASL Standards for the 21st Century Learner and state student curriculum standards. (AASL/NCATE, 2010, 1.4)

1.D.3 Employ strategies to integrate multiple literacies with content curriculum. (AASL/NCATE, 2010, 1.4)

1.D.4 Integrate the use of emerging technologies as a means for effective and creative teaching and support P-12 students' conceptual understanding, critical thinking, and creative processes. (AASL/NCATE, 2010, 1.4)

2.A.1 Be familiar with a wide range of children's, young adult, and professional literature in multiple formats and languages to support reading for information, reading for pleasure, and reading for lifelong learning. (AASL/NCATE, 2010, 2.1)

2.B.1 Employ a variety of strategies to promote leisure reading. (AASL/NCATE, 2010, 2.2)

2.B.2 Model personal enjoyment of reading in order to promote habits of creative expression and lifelong reading. (AASL/NCATE, 2010, 2.2)

2.C.1 Develop a collection of reading and information materials in print and digital formats that support the diverse development, cultural, social, and linguistic needs of P-12 students and their communities. (AASL/NCATE, 2010, 2.3)

2.D.1 Collaborate with classroom teachers to reinforce a wide variety of reading instructional strategies to ensure P-12 students are able to create meaning from text. (AASL/NCATE, 2010, 2.4)

2.D.2 Design instruction that encourages use of library media center services and resources and promotes lifelong learning. (AASL, 1998, 1.B.1)

2.D.3 Understand and apply to lesson planning information literacy/ information competence techniques and methods, numerical literacy, and statistical literacy. (ALA, 2009, 5D)

3.A.1 Identify and provide support for diverse student information needs. (AASL/NCATE, 2010, 3.1)

3.A.2 Model multiple strategies for students, other teachers, and administrators to locate, evaluate, and ethically use information for specific purposes. (AASL/NCATE, 2010, 3.1)

3.A.3 Collaborate with students, other teachers, and administrators to efficiently access, interpret, and communicate information. (AASL/NCATE, 2010, 3.1)

3.B.1 Support flexible open access for library services. (AASL/NCATE, 2010, 3.2)

3.B.2 Develop solutions for addressing physical, social, and intellectual barriers to equitable

access to resources and services. (AASL/NCATE, 2010, 3.2)

3.B.3 Facilitate access to information in print, non-print, and digital formats. (AASL/NCATE, 2010, 3.2)

3.B.4 Create a mutually respectful, safe, and supportive learning environment that is inclusive of every student. (NYSTS, 2011, IV.1)

3.C.1 Design and adapt relevant learning experiences that engage students in authentic learning through the use of digital tools and resources. (AASL/NCATE, 2010, 3.3)

3.C.2 Model and facilitate the effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research, learning, creating, and communicating in a digital society. (AASL/NCATE, 2010, 3.3)

3.D.1 Use evidence-based, action research to collect data on library programs and services. (AASL/NCATE, 2010, 3.4)

3.D.2 Interpret and use data to create and share new knowledge to improve practice in school libraries. (AASL/NCATE, 2010, 3.4)

4.A.1 Establish connection with other libraries and strengthen cooperation among library colleagues for resource sharing, networking, and facilitating access to information. (AASL/NCATE, 2010, 4.1)

4.A.2 Participate and collaborate as members of a social and intellectual network of learners. (AASL/NCATE, 2010, 4.1)

4.B.1 Participate in professional growth and leadership opportunities through membership in library associations, attendance at professional meetings and conferences, reading professional publications, and exploring Internet resources. (AASL/NCATE, 2010, 4.2)

4.B.2 Plan for ongoing professional growth. (AASL/NCATE, 2010, 4.2)

4.C.1 Articulate the role and relationship of the school library program's impact on student academic achievement within the context of current educational initiatives. (AASL/NCATE, 2010, 4.3)

4.C.2 Communicate ways in which the library program can enhance school improvement efforts, utilizing evidence-based practice and information from education and library research. (AASL/NCATE, 2010, 4.3)

4.C.3 Practice methods for, principled, transformational leadership. (ALA, 2009, 8E)

4.C.4 Practice effective verbal and written communication techniques. (ALA, 2009, 1J)

4.D.1 Identify stakeholders within and outside the school community who impact the school library program. (AASL/NCATE, 2010, 4.4)

4.D.2 Develop a plan to advocate for school library and information programs, resources, and services. (AASL/NCATE, 2010, 4.4)

5.A.1 Evaluate and select print, non-print, and digital resources using professional selection

School of Information Studies

tools and evaluation criteria to develop and manage a quality collection designed to meet the diverse curricular, personal, and professional needs of students, teachers, and administrators. (AASL/NCATE, 2010, 5.1)

5.A.2 Organize school library collections according to current library cataloging and classification principles and standards. (AASL/NCATE, 2010, 5.1)

5.A.3 Understand the impact of concepts and issues related to the lifecycle of recorded knowledge and information, from creation through various stages of use to disposition. (ALA, 2009, 2A)

5.B.1 Advocate for intellectual freedom and privacy, and promote and model digital citizenship and responsibilities. (AASL/NCATE, 2010, 5.2)

5.B.2 Educate the school community on the ethical use of information and ideas. (AASL/NCATE, 2010, 5.2)

5.B.3 Uphold professional standards of practice and policy as related to students' rights and teachers' responsibilities. (NYSTS, 2011, VI.1)

5.B.4 Understand the impact of the history of human communication and its impact on libraries. (ALA, 2009, 1D)

5.C.1 Apply best practices related to planning budgeting, and evaluation of human, information, and physical resources. (AASL/NCATE, 2010, 5.3)

5.C.2 Organize library facilities to enhance the use of information resources and services and to ensure equitable access to all resources for all users. (AASL/NCATE, 2010, 5.3)

5.C.3 Develop, implement, and evaluate policies and procedures that support teaching and learning in school libraries. (AASL/NCATE, 2010, 5.3)

5.C.4 Apply principles of planning and budgeting in school libraries. (ALA, 2009, 8A)

5.D.1 Communicate and collaborate with students, teachers, administrators, and community members to develop a library program that aligns resources, services and standards with the school's mission. (AASL/NCATE, 2010, 5.4)

5.D.2 Make effective use of data and information to assess how the library program addresses the needs of their diverse communities. (AASL/NCATE, 2010, 5.4)

5.D.3 Understand and use the techniques to analyze complex problems and create appropriate solutions. (ALA, 2009, 1I)

5.D.4 Understand and use the methods of assessing and evaluating the specifications, efficacy, and cost efficiency of technology based products and services. (ALA, 2009, 4C)

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.

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) or Immersion Milestone Event for students matriculating after 3/1/2017

(IST 511 and IST 601 or Immersion Milestone Event are required in the first semester/quarter 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, 50 hours on each level)

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 fieldwork and practicum placement.

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 and edTPA, 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. Students from other states must verify the certification requirements of their own state.

*graduation requirements

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

School of Information Studies

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.

Student Learning Outcomes

1. Develop research questions
2. Read & synthesize relevant literature
3. Select theories
4. Understand the research approaches in the field and select and apply the appropriate ones
5. Do analysis and synthesize data
6. Develop skill in scholarly writing
7. Application to changing or impacting practice

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.
- **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 140 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 at or above the 82nd percentile (161 for Math and 160 for Verbal (equivalent to 600s on the old scoring scale) and an analytic writing score of at least four (4); TOEFL scores in the 80th percentile (about 100) 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

School of Information Studies

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 (more typically 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:

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).

Expertise with Research Design, Data Collection and Data Analysis methods: Demonstrate the ability to independently plan, design, execute, and report a scholarly research project.

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.

Prepared for Professional Practices: Demonstrate knowledge of the professional norms, practices, and ethical standards of a defined scholarly field.

Pursue Academic Life: Demonstrate the ability to participate as an active contributor in the academic life as a faculty member or researcher.

Student Learning Outcomes

1. Conduct original information science and technology research.
2. Summarize and synthesize topically-focused body of relevant literature.
3. Explain foundational knowledge of information systems, services and policies
4. Formulate and analyze information technology problems using appropriate analytical tools
5. Analyze and synthesize data

6. Develop skill in scholarly writing

7. Develop and deliver instruction

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)

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)

The Remaining 30 credits

The remaining 18 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 faculty member. Typically we offer two doctoral level courses each semester

- IST 801 - Doctoral Gateway Seminar 1 credit
- 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)

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 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, cabboth@law.syr.edu).

Certificate of Advanced Study

Cultural Heritage Preservation, CAS

Contact:

Jill Hurst-Wahl, 208 Hinds Hall, (315) 443-1070, igrad@syr.edu

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:

School of Information Studies

- 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.

Student Learning Outcomes

1. Gain an interdisciplinary grounding in the basic theories and issues of cultural heritage preservation.
2. Be exposed to the application of digital approaches to the preservation of heritage collections, including archives, libraries, and museums
3. Be introduced to professional practices in the management and interpretation of a broad range of cultural resources, both human-made and natural.
4. Appreciate the role played by tourism and cultural economics.
5. Be prepared to work with or for organizations such as libraries, museums, National Parks, and State and local agencies in preserving and presenting cultural resources.

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 - Ethnographic Curatorship 3 credit(s)
- MUS 607 - Collections Management 3 credit(s)
- MUS 703 - Fine Art 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)

Students will work at an institution, agency, or community organization for their 150-hour internship(s).

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.

Data Science, CAS

Contact:

Carsten Oesterlund, Program Director, 309 Hinds Hall, (315) 443-2911, igrad@syr.edu

Website:

<https://ischool.syr.edu/future/cas/datascience>.

aspx

Overview:

The Certificate of Advanced Study (CAS) in Data Science program requires 15 credit hours and prepares students to work with large amounts of data using information technologies as tools to gain knowledge and insight. The 2 Core Courses (6 credits) focus on handling data through its full lifecycle: architecting, acquiring, analyzing, and archiving data. The remaining elective credits enable specializations in data analytics, data storage and management or other areas such as data 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.

Student Learning Outcomes

1. Document, analyze, and translate needs into technical designs and informatics solutions
2. Explain the general data lifecycle and relevant techniques from data acquisition, transformation, storage, retrieval, analysis, visualization, preservation, and publishing/sharing.
3. Apply various mathematical concepts, algorithms, technical standards, and principles to small and big data sets.
4. Develop and deliver professional communications in the field. Liaise with a range of people, including business managers, scientists, and IT developers.
5. Apply privacy and ethics principles in data management and analysis
6. Employ data storytelling and dive into the data, find useful patterns, and articulate what patterns have been found, how they are found, and why they are valuable and trustworthy

Curriculum:

This certificate requires 15 graduate credits. All courses are 3 graduate credits unless specified otherwise.

I. Required Courses (6 credits)

- IST 659 - Data Administration Concepts and Database Management 3 credit(s)
- IST 687 - Introduction to Data Science 3 credit(s)

II. Elective Courses (9 credits)

A formal Petition is required for students who

School of Information Studies

want to count a course towards the CAS that is not listed in the curriculum. Please email iAdvising@syr.edu to learn more about the Petition process.

- 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, melane02@maxwell.syr.edu, 315-443-0708

Carsten Østerlund, Program Director, costerlu@syr.edu

https://www.maxwell.syr.edu/exed/Certificates/CC-EGov_Management/Overview/

<http://ischool.syr.edu/future/cas/egov.aspx>

Student Learning Outcomes

1. Describe and analyze policy and regulatory issues related to eGovernment ICT service delivery in government agencies
2. Identify and explain planning, investment, development, and oversight processes for government ICT services
3. Identify and match government mission requirements with viable ICT architectures and service solutions

4. Describe how the public sector utilizes IT to accomplish government functions
5. Explain leadership theories and apply them to their own experiences
6. Develop and assess managerial skills and competencies

Certificate Requirement

The E-Government Management and Leadership Certificate of Advanced 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)

Curriculum

This certificate requires 12 graduate credits. All courses are 3 graduate credits unless specified otherwise.

Required Courses (6 credits)

- IST 711 - e-Government 3 credit(s)
- PAI 895 - Mid-career Training Group 1-3 credit(s)

Elective Courses (6 credits)

Students should consult with their respective Faculty Advisors to select two additional courses offered in either the iSchool or Maxwell School based on their prior education and experience as well as professional needs.

A formal Petition is required for students who want to count a course towards the CAS that is not listed in the curriculum. Please email iAdvising@syr.edu to learn more about the Petition process.

- IST 618 - Information Policy 3 credit(s)
- IST 623 - Introduction to Information Security 3 credit(s)
- IST 625 - Enterprise Risk Management 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 649 - Human Interaction with Computers 3 credit(s)
- IST 659 - Data Administration Concepts and Database Management 3 credit(s)

- IST 726 - Enterprise Architecture: Concepts and Practice 3 credit(s)
- IST 728 - Information Security Policy 3 credit(s)
- IST 769 - Advanced Database Administration Concepts and Database Management 3 credit(s)
- PAI 730 - Problems in Public Administration 1-3 credit(s)
- PAI 730 Information Strategy and Management in the Public Sector
- PAI 730 Information Management in the Public Sector
- PAI 730 Information Management in the Public Sector II Government 2.0
- PAI 730 Networked Governance
- PAI 730 Forecasting for Policy Analysis and Public Management
- PAI 734 - Public Budgeting 3 credit(s)
- PAI 742 - Public Administration and Law 3 credit(s)
- PAI 755 - Public Administration and Democracy 3 credit(s)
- PAI 772 - Science, Technology, and Public Policy 3 credit(s)
- PAI 789 - Advanced Policy Analysis 3 credit(s)

Information Security Management, CAS

Contact:

Carsten Oesterlund, Program Director, 309 Hinds Hall, 315-443-2911, igrad@syr.edu

Website:

<https://ischool.syr.edu/academics/graduate/cas/cas-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 (CAS) in Information Security Management (ISM) 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 CAS provides students with the flexibility to take coursework that does not overlap with their current expertise but gives them tools in information security technology,

School of Information Studies

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.

Student Learning Outcomes

1. Analyze technical and policy issues, ethics, operational costs, and diverse user behavior that either impact or are impacted by information security.
2. Evaluate and explain applications of information security in highly complex hardware, software, data, and their networking infrastructure.
3. Manage the complex interaction between technical security, policy issues, ethics, operational costs, and diverse user behavior, as it may affect organizational operations and data integrity.
4. Develop and Deliver effective professional communications.

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)

II. Secondary Focus Areas (6 credits)

Management Security (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 725 - Information Technology Security Architecture 3 credit(s)
- IST 728 - Information Security Policy 3 credit(s)

Technology Security (3 credits)

- IST 634 - Security in Networked Environments 3 credit(s)
- IST 704 - Applied Information Security 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)

III. Information Studies (6 credits)

• Students can choose an additional 6 credit hours from the Management Security or Technology Security course lists above, or from any of the below courses. Security courses available at the university other than those listed below may apply. A formal Petition is required for students who want to count a course towards the CAS that is not listed in the curriculum. Please email iAdvising@syr.edu to learn more about the Petition process.

- IST 618 - Information Policy 3 credit(s)
- IST 639 - Enterprise Technologies 3 credit(s)
- IST 645 - Managing Information Systems Projects 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)

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 the 36-credit Master of Science in Enterprise Data Systems. 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 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

Student Learning Outcomes

1. Integrate technical and solution development concepts with the principles of management, strategy, and financial analysis. Apply these concepts in the analysis of management case studies and problems. Analyze, compare, evaluate, and clearly articulate the relative value of IT investment alternatives.

2. Explain the fundamental principles and technical standards underlying telecommunication, networking and information technologies. Anticipate the way technological change and emerging technologies might alter the assumptions underlying architectures and system.

3. Describe the basic issues of telecommunication and information policy, industry trends. Analyze the political, economic and social forces shaping ICT and evaluate their implications for stakeholders.

4. Describe the principles, norms and practices governing professional communication in their field. Apply these principles in developing and delivering effective professional communications.

5. Describe the principles of leadership, followership and effective collaboration. Apply critical thinking skills and generate solutions using relevant technologies. Apply these concepts and demonstrate effective collaboration skills.

Curriculum:

The certificate requires 15 graduate credits. All

School of Information Studies

courses are 3 graduate credits unless specified otherwise.

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)

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 683 - Managing Information Technology-Enabled Change 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. Selective credits may be applied to the 36-credit Master of Science in Library and Information Science.

School Media, CAS

Contact:

Caroline Haythornthwaite, Program Director,
225 Hinds Hall, (315) 443-2911, 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.

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:

- designing, delivering, and assessing instruction that motivates students to acquire and use skills needed for learning in an information environment.
- planning inquiry-based learning experiences.
- selecting and using information resources and instructional technologies to facilitate student motivation and inquiry-based learning.
- connecting instruction to national and state standards.
- integrating instruction across the curriculum.
- providing instructional leadership, collaboration, and support in the area of information and inquiry skills in schools and districts.
- 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 inquiry-based 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. The School of Information Studies has developed a competency-based academic program, based on the New York State Teaching Standards and leading to New York State certification as a school library media specialist.

The program is presented in a distance learning course format.

Student Learning Outcomes

- 1.A.1 Understand impact of learning styles, stages of human growth and development, and cultural influences on learning. (AASL/NCATE, 2010, 1.1)
- 1.A.2 Assess learner needs and design instruction that reflects educational best practice. (AASL/NCATE, 2010, 1.1)
- 1.A.3 Support the learning of all students under members of the learning community, including those with diverse learning styles, physical and intellectual abilities and needs. (AASL/NCATE, 2010, 1.1)
- 1.A.4 Connect 21st century skills instruction to student interests and learning needs and link it to the assessment of student achievement. (AASL/NCATE, 2010, 1.1)
- 1.B.1 Implement the principles of effective teaching and learning that contribute to an active, inquiry-based approach to learning. (AASL/NCATE, 2010, 1.2)
- 1.B.2 Use a variety of instructional strategies and assessment tools to design and develop digital-age learning experiences and assessments in partnership with teachers and other educators. (AASL/NCATE, 2010, 1.2)
- 1.B.3 Communicate and document the impact of collaborative instruction on student achievement. (AASL/NCATE, 2010, 1.2)
- 1.C.1 Model, share, and promote effective principles of teaching and learning as collaborative partners with educators. (AASL/NCATE, 2010, 1.3)
- 1.C.2 Participate in curriculum development and engage in school improvement processes. (AASL/NCATE, 2010, 1.3)
- 1.C.3 Offer professional development to other educators as it relates to library and information use. (AASL/NCATE, 2010, 1.3)
- 1.D.1 Advocate for 21st century literacy skills to support the learning needs of the school community. (AASL/NCATE, 2010, 1.4)
- 1.D.2 Demonstrate how to collaborate with other teachers to plan and implement instruction of the AASL Standards for the 21st Century Learner and state student curriculum standards. (AASL/NCATE, 2010, 1.4)
- 1.D.3 Employ strategies to integrate multiple literacies with content curriculum. (AASL/NCATE, 2010, 1.4)
- 1.D.4 Integrate the use of emerging technologies

School of Information Studies

as a means for effective and creative teaching and support P-12 students' conceptual understanding, critical thinking, and creative processes. (AASL/NCATE, 2010, 1.4)

2.A.1 Be familiar with a wide range of children's, young adult, and professional literature in multiple formats and languages to support reading for information, reading for pleasure, and reading for lifelong learning. (AASL/NCATE, 2010, 2.1)

2.B.1 Employ a variety of strategies to promote leisure reading. (AASL/NCATE, 2010, 2.2)

2.B.2 Model personal enjoyment of reading in order to promote habits of creative expression and lifelong reading. (AASL/NCATE, 2010, 2.2)

2.C.1 Develop a collection of reading and information materials in print and digital formats that support the diverse development, cultural, social, and linguistic needs of P-12 students and their communities. (AASL/NCATE, 2010, 2.3)

2.D.1 Collaborate with classroom teachers to reinforce a wide variety of reading instructional strategies to ensure P-12 students are able to create meaning from text. (AASL/NCATE, 2010, 2.4)

2.D.2 Design instruction that encourages use of library media center services and resources and promotes lifelong learning. (AASL, 1998, 1.B.1)

2.D.3 Understand and apply to lesson planning information literacy/ information competence techniques and methods, numerical literacy, and statistical literacy. (ALA, 2009, 5D)

3.A.1 Identify and provide support for diverse student information needs. (AASL/NCATE, 2010, 3.1)

3.A.2 Model multiple strategies for students, other teachers, and administrators to locate, evaluate, and ethically use information for specific purposes. (AASL/NCATE, 2010, 3.1)

3.A.3 Collaborate with students, other teachers, and administrators to efficiently access, interpret, and communicate information. (AASL/NCATE, 2010, 3.1)

3.B.1 Support flexible open access for library services. (AASL/NCATE, 2010, 3.2)

3.B.2 Develop solutions for addressing physical, social, and intellectual barriers to equitable access to resources and services. (AASL/NCATE, 2010, 3.2)

3.B.3 Facilitate access to information in print, non-print, and digital formats. (AASL/NCATE, 2010, 3.2)

3.B.4 Create a mutually respectful, safe, and supportive learning environment that is inclusive of every student. (NYSTS, 2011, IV.1)

3.C.1 Design and adapt relevant learning experiences that engage students in authentic learning through the use of digital tools and resources. (AASL/NCATE, 2010, 3.3)

3.C.2 Model and facilitate the effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources

to support research, learning, creating, and communicating in a digital society. (AASL/NCATE, 2010, 3.3)

3.D.1 Use evidence-based, action research to collect data on library programs and services. (AASL/NCATE, 2010, 3.4)

3.D.2 Interpret and use data to create and share new knowledge to improve practice in school libraries. (AASL/NCATE, 2010, 3.4)

4.A.1 Establish connection with libraries and strengthen cooperation among library colleagues for resource sharing, networking, and facilitating access to information. (AASL/NCATE, 2010, 4.1)

4.A.2 Participate and collaborate as members of a social and intellectual network of learners. (AASL/NCATE, 2010, 4.1)

4.B.1 Participate in professional growth and leadership opportunities through membership in library associations, attendance at professional meetings and conferences, reading professional publications, and exploring Internet resources. (AASL/NCATE, 2010, 4.2)

4.B.2 Plan for ongoing professional growth. (AASL/NCATE, 2010, 4.2)

4.C.1 Articulate the role and relationship of the school library program's impact on student academic achievement within the context of current educational initiatives. (AASL/NCATE, 2010, 4.3)

4.C.2 Communicate ways in which the library program can enhance school improvement efforts, utilizing evidence-based practice and information from education and library research. (AASL/NCATE, 2010, 4.3)

4.C.3 Practice methods for principled, transformational leadership. (ALA, 2009, 8E)

4.C.4 Practice effective verbal and written communication techniques. (ALA, 2009, 1J)

4.D.1 Identify stakeholders within and outside the school community who impact the school library program. (AASL/NCATE, 2010, 4.4)

4.D.2 Develop a plan to advocate for school library and information programs, resources, and services. (AASL/NCATE, 2010, 4.4)

5.A.1 Evaluate and select print, non-print, and digital resources using professional selection tools and evaluation criteria to develop and manage a quality collection designed to meet the diverse curricular, personal, and professional needs of students, teachers, and administrators. (AASL/NCATE, 2010, 5.1)

5.A.2 Organize school library collections according to current library cataloging and classification principles and standards. (AASL/NCATE, 2010, 5.1)

5.A.3 Understand the impact of concepts and issues related to the lifecycle of recorded knowledge and information, from creation through various stages of use to disposition. (ALA, 2009, 2A)

5.B.1 Advocate for intellectual freedom

and privacy, and promote and model digital citizenship and responsibilities. (AASL/NCATE, 2010, 5.2)

5.B.2 Educate the school community on the ethical use of information and ideas. (AASL/NCATE, 2010, 5.2)

5.B.3 Uphold professional standards of practice and policy as related to students' rights and teachers' responsibilities. (NYSTS, 2011, VI.1)

5.B.4 Understand the impact of the history of human communication and its impact on libraries. (ALA, 2009, 1D)

5.C.1 Apply best practices related to planning budgeting, and evaluation of human, information, and physical resources. (AASL/NCATE, 2010, 5.3)

5.C.2 Organize library facilities to enhance the use of information resources and services and to ensure equitable access to all resources for all users. (AASL/NCATE, 2010, 5.3)

5.C.3 Develop, implement, and evaluate policies and procedures that support teaching and learning in school libraries. (AASL/NCATE, 2010, 5.3)

5.C.4 Apply principles of planning and budgeting in school libraries. (ALA, 2009, 8A)

5.D.1 Communicate and collaborate with students, teachers, administrators, and community members to develop a library program that aligns resources, services and standards with the school's mission. (AASL/NCATE, 2010, 5.4)

5.D.2 Make effective use of data and information to assess how the library program addresses the needs of their diverse communities. (AASL/NCATE, 2010, 5.4)

5.D.3 Understand and use the techniques to analyze complex problems and create appropriate solutions. (ALA, 2009, 1I)

5.D.4 Understand and use the methods of assessing and evaluating the specifications, efficacy, and cost efficiency of technology based products and services. (ALA, 2009, 4C)

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)

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.

III. Practicum (3 credits)

Students must complete a 3-credit, on-site, school-based supervised practica-one at the elementary level and one at the secondary level (120 hours each).

- IST 972 - School Media Practicum

IV. 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 fieldwork and practicum placement.

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 and edTPA, 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. Students from other states must verify the certification requirements of their own state.

*graduation requirement

School of Information Studies

ISchool Courses

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.

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 660 - Entrepreneurial Immersion Experience : SBinSV or EntreTech

School of Information Studies

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

Double Numbered with: IDS 460

Entrepreneurial immersions are programs where students study technology and interact with innovative firms/alumni to understand the cultural context and application of best practices. Additional work for graduate students. Additional fees may apply.

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.

School of Information Studies

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 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.

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.

PREREQ: IST 687

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.

PREREQ: IST 616

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

School of Information Studies

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 615 - Cloud Management

School of Information Studies

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

Cloud services creation and management. Practical experience in using, creating and managing digital services across data centers and hybrid clouds. Strategic choices for cloud digital service solutions across open data centers and software defined networks.

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

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 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

School of Information Studies

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
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 643 - Enterprise Services and Virtualized Systems

School of Information Studies
3 credit(s) At least 1x fall or spring
Concepts and hands-on experiences related to the design and administration of information systems and infrastructure that rely on virtualization techniques.

IST 645 - Managing Information Systems Projects

School of Information Studies
3 credit(s) Every semester
Double Numbered with: IST 345
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 647 - Network Virtualization

School of Information Studies
3 credit(s) At least 1x fall or spring
Topics related to the application of Software Defined Networking and Network Function Virtualization technologies in the design, operation and management of modern enterprise network infrastructures.

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 651 - Scripting for Ent Data Sys

School of Information Studies
3 credit(s) At least 1 x fall or spring
Scripting methods, languages and theory for the efficient and effective management of resources and services in enterprise data systems.

IST 652 - Scripting for Data Analysis

School of Information Studies
3 credit(s) Every semester
Double Numbered with: IST 462
Scripting for the data analysis pipeline. Acquiring, accessing and transforming data in the forms of structured, semi-structured and unstructured data. Additional work for graduate students.

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 655 - Enterprise IT Consultation

School of Information Studies
3 credit(s) Every semester
Double Numbered with: IST 455
Course for information professionals considering challenging career of modern IT consultant. Main focus on consultation process, research and logical thinking, communications with client, and presenting to broad audiences. Additional work for graduate students.

IST 655 - Enterprise IT Consultation

School of Information Studies

School of Information Studies

3 credit(s) Every semester
Double Numbered with: IST 455

Course for information professionals considering challenging career of modern IT consultant. Main focus on consultation process, research and logical thinking, communications with client, and presenting to broad audiences. Additional work for graduate students.

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 658 - Advanced Enterprise Network Management

School of Information Studies

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

Advanced computer networking concepts in planning, design and management of the infrastructure needed for supporting data intensive, cloud and virtualized environments. Previous knowledge of TCP/IP concepts is required.

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.

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 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.

School of Information Studies

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 Organization

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 - Introduction to 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.

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

IST 704 - 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.

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 714 - Cloud Architecture

School of Information Studies

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

Advanced, lab-based exploration of enterprise cloud migration/adoption costs, planning and economics; cloud application/service design, network and data center resource orchestration. Topics also include cloud elastic sizing, risk management, governance, compliance and monitoring.

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

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, broadband, wireless, MPLs, VPN, VoIP, QoS and applications.

PREREQ: IST 653 AND IST 656

IST 754 - Capstone Project in Enterprise Data Systems

School of Information Studies

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

Project-based activity for which student and instructor set milestones and deliverables that cover at least three of the five program focus areas. Prerequisites: 18 core credits and residency milestone

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 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

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

College of Law

About the College of Law

Craig M. Boise, Dean
College of Law
Malfitano Dean's Suite, 408 Dineen Hall
<http://law.syr.edu>

Message from Dean Boise

Welcome to the College of Law. Here, we pride ourselves on providing students with a doctrinal understanding of the law and experiential learning opportunities to hone the legal skills they need to excel in today's legal marketplace.

The College of Law is home to a number of interdisciplinary Centers that work in collaboration with others schools and colleges across Syracuse University to create comprehensive learning and research experiences. The Institute for National Security and Counterterrorism (INSCT), a partnership between the College of Law and the Maxwell School, is an international leader in graduate and legal education, research, and public service in the field of security and counterterrorism. The Technology Commercialization Law Program (TCLP) works with a number of our schools, student inventors and outside clients in bringing real-world new technologies to market through legal and regulatory analysis. The Burton Blatt Institute (BBI), a partnership with the School of Education, works to advance the lives of people with disabilities through program development, innovative research, and policy guidance and influence grounded in law and innovation.

Students who enroll at the College of Law have access to another unique advantage: the opportunity to pursue a joint degree at one of Syracuse University's schools and colleges during their time here and at no additional cost. To better position yourself in what has become a highly specialized legal employment marketplace, explore the possibility of supplementing your J.D. with a Master of Science in Public Administration (Maxwell), Business Administration (Whitman), Cultural Foundations of Education (School of Education), Communications (Newhouse), Forensic Science (Arts & Sciences) and more. Visit our website for a complete listing of your options.

Our Externship Programs continue to grow and expand to meet the needs of students who wish to gain hands-on practical experience while establishing professional networks in key legal markets. This spring, we will host our first cohort of New York City Externship Program participants. While the New York program will expose students to working environments across the legal spectrum in a dynamic city, the D.C. Externship program enables students to learn how the legal community operates in our nation's capital. We also offer the Central New York Externship program with placements in legal settings throughout the region, and for students who wish to gain international legal experience,

we offer a summer semester of experiential learning in London, a unique program that celebrates its 40th anniversary this summer.

At the College of Law, you will work with faculty whose emphasis is on practice as well those who have distinguished themselves as noted scholars, and whose work influences the development of law and policy in the U.S. and around the globe. The practice of law is as vibrant as ever, with a proliferation of career paths across industry sectors, the government, the judiciary, and in our communities. Take a virtual tour of Dineen Hall online, and join us for an innovative and dynamic experience that will prepare you for the career of your choice.

Craig M. Boise
Dean and Professor of Law

Admission

Applicants to the College of Law are not required to present college credit in a particular subject area. A broad general education is helpful preparation for law study. Above all, prospective law students should be able to use language effectively. Applicants should have the ability to communicate ideas orally and in writing with precision and clarity.

The Admissions Committee at the College of Law considers School Admission Test (LSAT) scores and writing samples, transcripts showing records of prior academic performance, 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/academics/academic-handbook/>

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 Associate Dean for

Academic Affairs. Matriculated Main Campus graduate students wishing to take law courses should follow the below procedures.

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.

If space is available, get permission and signature from the law professor to enroll in the course.

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 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. You can find more information here.

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

College of Law

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).

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).

J.D./M.B.A. and J.D./M.B.A in Accounting or Finance

Business and industry must take public and private law into account in all decisions. The College of Law and the Martin J. Whitman School of Management have responded by creating joint degree programs in business administration and accounting. Students may obtain a J.D. and M.B.A. or J.D. and M.B.A. in accounting or finance in four years instead of the five years necessary when both programs are pursued separately. These programs are particularly appropriate for students with career objectives in corporate law, tax law, or labor law. J.D./M.B.A. students generally complete program requirements in four academic years. Program structure for the J.D./M.B.A. in accounting or finance varies substantially depending on the student’s accounting and management background and desire for certification. Because a joint degree program involves reciprocal application of electives, students are not awarded either degree until the requirements for both degrees are completed.

Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, 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).

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).

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).

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

College of Law

to one of these programs has the opportunity to obtain both the J.D. degree and the M.S. or M.A. in communications degree in substantially less time than would be required were the two degrees be obtained independently.

Joint degrees in communications prepare students for careers in communications law and media public policy. Students may matriculate into one of a number of programs including advertising, arts journalism, documentary film and history, magazine, newspaper and online journalism, media studies, photography, public relations and television, radio and film. The duration of the joint program in communications varies according to the program chosen and the student's prior coursework.

Questions and inquiries may be directed to the Graduate Records Office, S.I. Newhouse School of Public Communications, 330 Newhouse 2 (315-443-4039; pcgrad@syr.edu) or visit newhousemasters.syr.edu. Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Student Life, Suite 220 College of Law (443-1146, 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. 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 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 Joshua Kennedy, Associate Director of Graduate Studies, 215 Eggers Hall, Maxwell School of Citizenship and Public Affairs (443-4000; jkenn01@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.

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.

College of Law

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 or Associate Dean for International Initiatives Aviva Abramovsky at aabramov@law.syr.edu.

Clinical & Experiential Education

Clinical & Experiential Education may be found by clicking on the link below:

<http://law.syr.edu/academics/clinical-experiential/>

Centers & Institutes

Centers & Institutes may be found by clicking on the link below:

<http://law.syr.edu/academics/centers-institutes/>

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

Cindy Paikin, Program Coordinator, paikinc@update.edu

www.upstate.edu/cnymph

Student Learning Outcomes

1. Make connections between social structure and individual experience
2. Distinguish various theoretical perspectives
3. Critically evaluate information
4. Think and write analytically
5. Can evaluate qualitative research
6. Can evaluate quantitative research
7. Be able to collect and analyze data
8. Be able to present information and write papers
9. Can explain social inequality
10. Can describe social issues
11. Can describe social policy
12. Can identify how societies operate
13. Can describe the functioning of social institutions

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 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

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

For further information regarding Scholarships and Financial Aid, please contact the College of Law Financial Aid Office, 315-443-1962, 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

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

College of Law

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).

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, cabboth@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 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).

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/Computer Science, JD/MS

Law/Computer Science

The Juris Doctor and Master of Science in Computer Science is a combined degrees that 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, 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

College of Law

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/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).

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 Alan Allport, Associate Professor of History and Director of Graduate Studies, Department of History, 145 Eggers Hall, 443-4144, aallport@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 444 College of Law, 443-1146, cabboth@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.

Students must apply and be admitted to both programs separately and will complete the entire first year in the College of Law prior to their admission to the Master of Arts in International Relations.

In three years, students complete the core requirements for both the Juris Doctor and MAster of Arts in International Relations degree, beginning their dual studies between their 1L and 2L years. In addition to the core, students complete specialized coursework in one of the following five international relations career tracks; 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, the Caribbean, and the Middle East.

Students also complete an applied internship opportunities linking academic studies in law and international relations with the professional practice of international relations.

Questions and inquiries may be addressed to Christine Omlino, Director, Admissions and Financial Aid, Department of Public Administration and International Affairs, 215 Eggers Hall, Maxwell School of Citizenship and Public Affairs (443-4000; comolino@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@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, 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 Janice Dowell, Philosophy Department, 541 Hall of Languages (443-5826; jldowell@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 Seth Jolly, Director of Graduate Studies, (skjolly@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Academic and Bar Support, 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 Seth Jolly, Director of Graduate Studies, (skjolly@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill, Associate Director for Academic and Bar Support, 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 prepare for a career at 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 (315-443-1146, 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) 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/Social Work (Licensed Clinical), JD/MSW

College of Law

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).

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) 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).

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, cabboth@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

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 832 - Cyber Security Law and Policy 3 credit(s)
- LAW 822 - National Security & Counterterrorism 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, 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 INSCT at 315-443.2284.

<http://insct.syr.edu/our-work/academicprograms/pcr-certificate/>

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
- 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) Required Core Course (Mandatory/three credits):

- PAI 719 - Fundamentals of Post-Conflict Reconstruction 3 credit(s)

2) Secondary Core Course (Choose one/three credits):

- Civil Wars & State-Building (PAI 730)

- Economics of Development (ECN 651/PAI 757)
- Rule of Law in Postconflict Reconstruction (LAW 813)
- Fundamentals of Conflict Studies (PAI 601 / SOC601)
- Humanitarian Action: Challenges, Responses, Results (PAI 765)
- Multilateral Peacekeeping (ANT/PAI 701)

4) 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 1-3 credit(s) Global Internship IR Students
- PAI 752 - MPA Workshop 3 credit(s)
- PAI 700 - Selected Topics 1-6 credit(s) Washington Practicum

College of Law

College of Law Courses

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 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

A series of problems challenge students to determine client interests and consider different options for effective representation. The problems span civil and criminal law and become more complicated as the semester progresses. Discussions with practicing attorneys will supplement students' work on the problems. To develop skills of perception and judgment, the course also incorporates the study of mindfulness and emotional intelligence. Students

College of Law

will learn about concentration, awareness, and the development of compassion in legal representation. They will practice interviewing clients and making decisions in a group. If they would like, students may also be guided in mindful breathing, meditation, and yoga.

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 649 - Trauma Informed Lawyering

College of Law

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

This course will focus on cases that involve partner violence and rape to examine how trauma effects participation in the criminal justice process. Understanding trauma will allow students to develop effective advocacy for their clients. Students will also learn how to engage with law enforcement, attorneys, judges and community based advocates. Interviewing techniques, role playing, active listening, and problem solving with clients will be discussed. Developing strategies for policy changes will also be addressed.

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.

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 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

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. This course devotes substantial time to statutory interpretation and some time to covering administrative law, including agency rulemaking and judicial review of agency rulemaking.

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.

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 nonmarital 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

A study of the structure and underlying principles of the U.S. Federal income tax system, including an introduction to tax planning. This course devotes substantial class time to the fundamentals of statutory interpretation, including: agency adjudications, judicial review of agency action, statutory interpretation techniques, methodologies, and legislative history.

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 724 - Veterans Law

College of Law

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

This course examines the substantive, administrative, and procedural process of claims before the Department of Veterans Affairs. Students will learn how to write regulations, understand the notice and comment procedures for proposed regulations, and write informal and formal briefs to the agency and courts. Students will have the opportunity to advocate for a mock veteran, third party, and VA interests. The course will devote substantial class time in covering fundamentals of administrative law, including agency rulemaking process, agency adjudication, and judicial review.

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 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 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 742 - Entertainment Law

College of Law

3 credit(s) Irregularly

Will simulate actual entertainment law practice and will emphasize the process by which

College of Law

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 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 752 - Antitrust Law

College of Law

3 credit(s) Irregularly

This is a survey of federal antitrust law and policy under the Sherman, Clayton, and FTC Acts. It takes an historic, layered approach, building on the four eras of antitrust enforcement: The Foundation Period (1890-1914); The Rule of Reason Period (1915-1939); The Per Se Rule and Focus on Market Structure (1940-1974); The Modern Era (1975-Present). The course covers basic economic theory of the free-market; The Rule of Reason and per se offenses; price fixing, market division, and boycotts; trade association behavior; monopoly and attempts to monopolize, mergers and joint ventures; vertical restraints like resale price maintenance; exclusive dealing and tie-in agreements; and selected exemptions from antitrust liability.

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 758 - Civil Rights Law

College of Law

3 credit(s) Irregularly

Focusing on race, gender, class, and sexual preference, this course examines the social, political, and legal structures that determine what civil rights are and who has them. Significant attention will be paid to the role of U.S. Supreme Court opinions and federal legislation.

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. The course will devote substantive class time to covering the fundamentals of statutory interpretation, including statutory interpretation techniques and methodologies, canons of statutory interpretation, and the role of legislative history in statutory interpretation.

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 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 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 776 - Investigating and Reopening Civil Rights Murder Cases

College of Law

3-6 credit(s)

This three-credit course is the result of SUCOL's effort to re-open the 1964 murder investigation of Frank Morris, a 51 year old African American business owner in Ferriday, Louisiana. Mr. Morris was pushed at gunpoint back into his burning store by suspected members of the Ku Klux Klan. He died four days later of burns over 100 % of his body. Although the FBI identified witnesses who pointed to two local law enforcement agents, no charges or indictments followed and the case was dropped. Seventy-five such cases have been identified by the FBI and the U.S. Department of Justice with the assistance of the NAACP, the Southern Poverty Law Center and the Urban League. Students will each be assigned a different case to work up as a possible one to encourage the FBI to reopen. They will prepare chronologies, potential witness books, assess evidence and draft working memos of law on issues related to bringing this case to prosecution. Course projects will require consideration of a variety of legal issues, including state federal jurisdiction, federal laws on civil rights crimes, statutes of limitations speedy trial double jeopardy, immunity, federal investigative and prosecutorial efforts, state and local prosecutions, and evidence. Course projects will require consideration of a variety of legal issues, including state/federal jurisdiction, federal laws on civil rights crimes, statutes of limitations/ speedy trial/double jeopardy, immunity, federal investigative and prosecutorial efforts, state and local prosecutions, and evidence.

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 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 788 - Immigration Law

College of Law

3 credit(s) Irregularly

This course offers an introduction to the laws, practices, and policies governing the ability of non-United States citizens to enter and remain in the United States either temporarily or permanently. The topics of study include the rights of non-U.S. citizens, the bases upon which the United States admits non-U.S. citizens either temporarily or permanently and the procedures for admission, the bases upon which non-U.S. citizens may be removed from the U.S. and the procedures for removal, the principles and policies behind the current and past system of immigration law, the complex and intricate statutory and regulatory framework governing immigration, and the roles and powers of the different branches of government in the development and implementation of immigration law and policy. The material in this course will implicate and develop your understanding of other areas of law, including administrative law, international law, and constitutional law.

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

College of Law

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 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 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 accusatory 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

2-3 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 806 - Legal Interviewing and Counseling

College of Law

3 credit(s) Irregularly

Legal Interviewing and Counseling is a course that will introduce students to the theory and practice of legal interviewing and counseling and the skills necessary to conduct interviews and provide counseling to clients. Classes will involve a combination of interaction discussion and interviewing and counseling sessions. In addition, students will be assigned one interviewing and one counseling demonstration to present in class that will include written submissions.

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. Fall semester covers basic intellectual property law, securities and debt finance related to intellectual property, covenants not to compete, licensing basics, antitrust restraint of trade and monopolization. Spring semesters covers design patent, design copyright, trade dress, trade secrets, licensing negotiation, antitrust treatment of mergers, and patent assertion entities. At the conclusion of each semester, 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. Students work in supervised teams consulting with companies, entrepreneurs, or universities that are seeking to commercialize new technologies. The finished product includes a report and presentation that covers 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. Instructor guides the issue-spotting and provides feedback on reports through the individual team supervisors: Professor of Practice Jack Rudnick and adjunct professors Dean Bell and Dominick Danna, and

project advisor Chris Horacek.

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 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 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. 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.

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 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 835 - Women in the Law Seminar

College of Law

3 credit(s)

This course examines the historical and contemporary treatment of women under the Constitution, statutes, and common law. Students will examine how the legal system has constructed and applied notions of gender and gender equality. It will introduce students to significant contemporary legal scholarship on the status of women in modern America, and will explore how gender affects legal relationships and status. Feminist jurisprudence, or feminist

theory, will be applied to doctrinal legal issues. Satisfies the upper level writing requirement.

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 838 - Inclusive Capitalism, Property Rights, and Binary Economics

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

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 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 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 847 - An Introduction to American Legal Thought

College of Law

2 credit(s) Irregularly

This course will explore a variety of contemporary schools of legal thought, with an emphasis on their understanding of the nature of law and, where applicable, the appropriate objectives of law and law reform. The course will begin with an overview of the historical roots of today's thinking, exploring Langdell's orthodoxy, Oliver Wendell Holmes reaction thereto, and the highly influential legal realists. The course will then turn to its more central focus: the legal process school and the contemporary progeny of legal realism (e.g., law and economics, critical legal studies, law and feminism). The course will also expose students to a powerful new alternative to these popular schools of thought, namely the cultural study of law.

LAW 852 - Affordable Care Act Seminar

College of Law

2-3 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 859 - Advanced Issues in Copyright Law

College of Law

1 credit(s) Irregularly

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. 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 – 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 – including multinational enterprises – and institutions for environmental, human rights, and other consequences of their energy and natural resources activities. Examination of emerging best practice in mineral policy. Interfused 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 868 - Smart Grid: Sec. Prov. & Ecn

College of Law

3 credit(s) Irregularly

This highly interdisciplinary, team-taught course covers the fundamental engineering, economic, and legal principles underlying the smart 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 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 881 - Vietnam: A Disability Lens

College of Law

1 credit(s) Irregularly

This course offers a comparative look at the laws, policies and practices vis-à-vis disability in Vietnam and the United States, coupled with an on-the-ground, close-up look in Vietnam. The course will introduce the students to the United Nations Convention on the Rights of Persons with Disabilities, Vietnam's law on disability enacted in 2010, and federal laws specific to disability, namely the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and the Individuals with Disabilities Education Act.

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 884 - Advanced Litigation Skills

College of Law

3 credit(s) Irregularly

Trial work is a relatively modest fraction of a litigator's life. Yet most law schools routinely offer trial advocacy courses, and largely ignore the other practical forms and occasions for litigation advocacy. This is a one-semester program where aspiring litigators would confront the more typical litigation problems that would combine and hone their training in legal writing and written advocacy, civil and criminal procedure, and privilege and other issues arising in the course of discovery, motion practice, negotiation and oral advocacy. This experiential course would accomplish this through a series of classroom simulations and written homework assignments

that required the students to address a series of typical litigation problems.

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 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

3 credit(s) Irregularly

The death penalty is society's ultimate legal sanction, meant to be reserved for the worst of the worst. Given the finality and enormity of the government's deliberate taking of a human life, the United States Supreme Court has developed a complex jurisprudence regulating the imposition of the death sentence. In this seminar, we will study this constitutional framework for the modern death penalty. In addition, we will engage in a critical study of the institution of capital punishment, discussing topics such as the impact of capital crimes on victims' families, the theoretical rationales for capital punishment, the historical development of the death penalty, capital punishment in global law and practice, the impact of mental illness, race and poverty on how the death penalty is administered, and the sentencing of innocent persons to death.

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 - 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 - 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 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 and Health 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 OR LAW 647

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.
COREQ: LAW 722 AND (LAW 746 OR LAW 647)

LAW 920 - CNY Lawyer Seminar

College of Law

2 credit(s) Every semester
The CNY 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 OR LAW 647

LAW 921 - CNY Externship Program

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 Central 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 OR LAW 647
Repeatable 1 time(s)

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 OR LAW 647 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 OR LAW 647

LAW 930 - Pro Bono Scholars Program Seminar

College of Law

2 credit(s)
The Pro Bono Scholar seminar is a forum that facilitates discussions related to lawyering as a profession and where issues particular to the student's placement experience are addressed. It is a forum to discuss the role of lawyers in our justice system, the responsibilities lawyers have in obtaining access to this system, and the practical implications of upholding the ethical standards demanded by the profession. Students will discuss the stresses particular to this profession, and explore the emotional commitment the profession demands.

LAW 931 - Pro Bono Scholars Program Externship

College of Law
10 credit(s)

Students in the final year of law school to devote their last semester of study to performing pro bono service for the poor through an approved externship, legal services provider, law firm, or corporation. Placements are available in Central New York and Washington, DC. Only students selected by the Pro Bono Scholars Program committee and approved by the New York Court of Appeals may register for the course. Students accepted for the Program will spend 12 weeks working full time in a placement beginning in March. Students will also have a seminar component, Pro Bono Scholars Seminar, for which they will earn two credits.

LAW 933 - Land Use Planning and Public Regulation in Italy

College of Law
1 credit(s) Irregularly

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 OR LAW 647

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 OR LAW 647

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 962 - Trial Practice Seminar

College of Law

2 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 903 - Intro to the Study of American Law

College of Law

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

This course will prepare LL.M. students for their study of law by introducing students to the Socratic method, case briefing, IRAC writing structure, and Bluebook citation forms; introducing students to the structure of American government and court systems; introducing students to the sources of American law; and introducing students to discrete primary concepts of doctrinal law in such subjects as Constitutional Law, Contracts, and Torts.

Martin J. Whitman School of Management

Eugene Anderson, Dean
721 University Avenue Suite 415
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, tMBA@Syracuse 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 1,400 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 30,000 students.

The Whitman School offers full-time Master of Science (MS) programs in Professional Accounting, Entrepreneurship & Emerging Enterprises, Finance, and Supply Chain Management in addition to a Master in Business Administration (MBA). Whitman also offers distance learning Master of Science programs in Professional Accounting, Business Analytics, and Entrepreneurship in addition to a Master in Business Administration (iMBA).

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.

MBA (Distance Learning)

MBA@Syracuse is a distance learning MBA program for working professionals 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 residencies and distance learning. Residencies are held on the SU campus and in other sites in the U.S. and abroad. Asynchronous coursework is designed to immerse students through rich, high-quality video and dynamic, interactive content. Live sessions of 15-20 students are held each week with faculty via Adobe Connect to allow faculty and students to discuss course material, cases, problems, projects, and etc.

The MBA@Syracuse 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 Professional Accounting

The MS in Professional 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 Professional 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.

MS Business Analytics

The MS in Business Analytics challenges students to develop an interdisciplinary understanding of the applications of analytics to the fields

of accounting, finance, marketing, and supply chain management through techniques in data collection, data visualization, statistical and pattern analysis, and data mining. The curriculum leverages an understanding of business applications from the Whitman School of Management combined with in depth technical offerings of the School of Engineering and Computer Science and the School of Information Studies.

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 and faculty as the full-time MS in Professional 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** (33-42 Credits) - For students who hold an undergraduate degree in business.
- **Foundational Sequence** (45-48 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 and Emerging Enterprise

The 30-credit hour Whitman MS in Entrepreneurship and Emerging Enterprise 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 and Emerging Enterprise 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 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 Entrepreneurship (Distance Learning)

Entrepreneurship@Syracuse, the online Master of Science in Entrepreneurship program from the Martin J. Whitman School of Management, prepares current and aspiring entrepreneurs with the business foundation and networking opportunities to start a new venture, effectively manage a company, or innovate within an organization.

MS in 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 [RS1] 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 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. Professional Accounting, MS candidates may apply for fall or spring admission. MBA@Syracuse, Accounting@Syracuse.

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 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

Applied Data Science, MS

Contacts

Carsten Oesterlund
Program Director
309 Hinds Hall
(315) 443-8773
costerlu@syr.edu

Arthur Thomas
Associate Dean for Academic Affairs
School of Information Studies
110A Hinds Hall
315-443-3840
apthomas@syr.edu

Don Harter
Associate Dean, Masters Programs
Whitman School of Management
Graduate Programs, Room 315
315-443-3502
dharter@syr.edu

Faculty

School of Information Studies Faculty: Bei Yu, Yang Wang, Jeff Saltz, Joon Park, Jeff Hemsley, Nancy McCracken, Lu Xiao, Michael Fudge, Martha Garcia-Murillo, Gary Krudys

Whitman School of Management Faculty: Donald E. Harter, Anna Chernobai, Dinesh Gauri, Thomas Barkley, Mary Ann Monforte, John Park, Lai Xu, Reja Velu

Description

Offered jointly by the School of Information Studies and the Martin J. Whitman School of Management, the Master of Applied Data Science degree program is designed to be a professional program of study, with a strong emphasis on the applications of data science to enterprise operations and processes, particularly in the areas of data capture, management, analysis and communication for decision making.

Admission

All candidates should have a bachelor’s degree or equivalent. In addition, it is recommended that potential students have a strong background in a data-intensive domain such as business, science, statistics, research, or information technology. The online program may be of particular interest to early- or mid-career professionals who cannot, or prefer not to, relocate. Applicants should have

an interest in interdisciplinary work focused on managing large data sets using information technologies as tools to enable solutions for such organizations as business and public enterprises. 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.

Graduate Program Application

\$75 non-refundable application fee

Official academic credentials

500-word personal statement

Two (2) letters of recommendation

Required exam scores : GRE General Exam Scores (We can accept GMAT or LSAT scores in lieu of GRE scores, although GRE General Exam scores are preferred.); TOEFL or IELTS (international students only)

Resume or Curriculum Vitae (CV)

Video Submission (optional)

Financial documents (international students only)

Financial Support

Merit scholarships are available for the on campus program

Facilities

Current classrooms, computer labs and laptop carts within the School of Information Studies and the Whitman School are available for this program; Online facilities provide complete coverage of all required course activities.

Degree Awarded

MS in Applied Data Science

Student Learning Outcomes

Successful students in the Master's of Applied Data Science program will be able to:

1. Describe a broad overview of the major practice areas in data science.
2. Collect and organize data.
3. Identify patterns in data via visualization, statistical analysis, and data mining.
4. Develop alternative strategies based on the data.
5. Develop a plan of action to implement the business decisions derived from the analyses.
6. Demonstrate communication skills regarding data and its analysis for managers, IT professionals, programmers, statisticians, and other relevant professionals in their organization.
7. Synthesize the ethical dimensions of data science practice (e.g., privacy).

Program Requirements

Common Core

The Common Core (18 credits) includes foundational knowledge in databases, data analysis and business analytics. Students will complete Common Core courses in an order which builds foundational knowledge and skills in preparation for more advanced work.

- IST 565 - Data Mining 3 credit(s)
- IST 659 - Data Administration Concepts and Database Management 3 credit(s)
- IST 687 - Introduction to Data Science 3 credit(s)
- IST 718 - Advanced Information Analytics 3 credit(s)
- MBC 638 - Data Analysis and Decision Making 3 credit(s)
- SCM 651 - Business Analytics 3 credit(s)

Applications Analytics Core

The Applications Analytics Core (3-6 credits*) provides an opportunity for the student to choose one or two functional area specializations in accounting analytics, financial analytics, marketing analytics, and supply chain analytics. Students will complete one or two chosen Application Analytics Core course(s) as a way to develop deeper exploration of particular application area(s) for data science techniques.

- ACC 652 - Accounting Analytics 3 credit(s)
- MAR 653 - Marketing Analytics 3 credit(s)
- FIN 654 - Financial Analytics 3 credit(s)
- SCM 702 - Principles of Management Science 3 credit(s)

*A similar applied analytics course in a different application domain may be included if approved by both schools.

Electives

The Electives (12-15 credits) include coursework in linear models, time series, scripting for data analysis, natural language processing, information visualization, data warehouse, text mining, advanced database management and information policy.

- MAS 766 - Linear Statistical Models I: Regression Models 3 credit(s)
- MAS 777 - Time Series Modeling and Analysis 3 credit(s)
- IST 618 - Information Policy 3 credit(s)
- IST 623 - Introduction to Information Security 3 credit(s)
- IST 652 - Scripting for Data Analysis 3 credit(s)
- IST 664 - Natural Language Processing 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)

Portfolio Requirement

Students will also complete a Portfolio to provide an assessment of learning for their program. Students will choose assignments and projects worked on in courses during the course of study which reflect abilities specified in the program learning outcomes for inclusion in their personal portfolio. A panel of faculty who teach the courses included in the program will review the portfolios of graduates during the students' final term. The panel will approve the portfolio for each student as a transcript milestone required for the degree.

Total Credits Required: 36

Transfer Credits

6 credits in related coursework can be transferred from other universities with the approval of the Program Director.

Part-Time Study

U.S. citizens, and non-citizens with the appropriate visa and/or immigration permissions for part-time study, may pursue this program on a part-time basis.

Satisfactory Progress

Students are required to have a 3.0 grade point average or higher to maintain satisfactory progress.

Notes

On-campus courses are delivered through the traditional semester format in which students take courses in the fall and spring semester, with optional internships in the summer. Section sizes for on-campus classes range from 20-45 students. Online courses are delivered with four (4) starts per year, where courses run for 11 weeks with required contact hours achieved through a mix of asynchronous and synchronous course interaction. Online section sizes run from 12-18 students.

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 M.B.A. program for working professionals. Syracuse University has offered an M.B.A. program via distance learning since

Martin J. Whitman School of Management

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) professional 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 634 - Introduction to Information Technology and E-commerce 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 643 - The Legal and Ethical Environments of Business 3 credit(s)
- MBC 645 - Strategic Management 3 credit(s)

- MBC 647 - Global Entrepreneurial Management 3 credit(s)
- 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.

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.

Student Learning Outcomes

1. Our graduates will understand how to effectively manage organizational resources
2. Our graduates will be effective, persuasive communicators.
3. Our graduates will demonstrate skills in inquiry, critical thinking and problem solving, supported by appropriate analytical and quantitative techniques.
4. Our graduates will demonstrate the ability to think strategically about business issues.
5. Our students will learn to function with an entrepreneurial spirit.
6. Whitman MBA's will demonstrate the ability to manage in a global environment.

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, jjcompr@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 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. 3PL's, 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 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.

Martin J. Whitman School of Management

- 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.

Business Analytics Track

Program Description

The MBA Business Analytics track is a nine credit option within the MBA program. Students develop an interdisciplinary understanding of the applications of analytics to the fields of accounting, finance, marketing, and supply chain management through techniques in data collection, data visualization, statistical and pattern analysis, and data mining.

Admission

Admission to the residency or online MBA program. U.S. Bachelor's degree (or its equivalent) from an accredited college or university is required. Applicants are expected to score a minimum of 600 on the GMAT exam (60th percentile) or an equivalent percentile score on the GRE. International students are recommended to score 100 on the TOEFL with 23 on the speaking portion of the exam. A minimum of one year of professional work experience is preferred.

MBA track in Business Analytics Requirements

1. one required course in analytics core
2. one selective course in analytics applications core
3. one additional selective course in analytics applications or in analytics depth core

Learning outcomes:

1. Students will be able to collect and organize

data

2. Students will identify patterns in data via visualization, statistical analysis, and data mining.
3. Students will develop alternative strategies based on the data.

Requirements

The business analytics track within the MBA program requires nine credits of analytics coursework:

- SCM 651 - Business Analytics 3 credit(s)
- Selective - Applied Analytics (select one of the following):
 - ACC 652 - Accounting Analytics 3 credit(s)
 - MAR 653 - Marketing Analytics 3 credit(s)
 - FIN 654 - Financial Analytics 3 credit(s)
- SCM 702 - Principles of Management Science 3 credit(s)
- Selective - Analytics Depth (select one of the following or an additional Applied Analytics course):
 - MAS 766 - Linear Statistical Models I: Regression Models 3 credit(s)
 - MAS 777 - Time Series Modeling and Analysis 3 credit(s)
 - MAR 655 - Customer Relationship Management with Systems Applications and Products 3 credit(s)
 - IST 687 - Introduction to Data Science 3 credit(s)
 - IST 718 - Advanced Information Analytics 3 credit(s)
 - IST 777 - Statistical Methods in Information Science and Technology 3 credit(s)
 - IST 565 - Data Mining 3 credit(s)
 - IST 657 - Basics of Information Retrieval Systems 3 credit(s)
 - IST 719 - Information Visualization 3 credit(s)
 - IST 722 - Data Warehouse 3 credit(s)
 - IST 776 - Research Methods in Information Science and Technology 3 credit(s)
 - CSE 581 - Introduction to Database Management Systems 3 credit(s)
 - CSE 787 - Analytical Data Mining 3 credit(s)

Business Analytics MS

Contact

Don Harter, Associate Dean for Master's Programs; 315 Whitman School of Management, 315-443-3502, dharter@syr.edu

Program Description

The MS in Business Analytics challenges students to develop an interdisciplinary understanding of the applications of analytics to the fields of accounting, finance, marketing, and supply chain management through techniques in data collection, data visualization, statistical and pattern analysis, and data mining. The curriculum leverages an understanding of business applications from the Whitman School of Management combined with in depth technical offerings of the School of Engineering and Computer Science and the School of Information

Studies.

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

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.

Student Learning Outcomes

1. Students will be able to collect and organize data.
2. Students will identify patterns in data via visualization, statistical analysis, and data mining.
3. Students will develop alternative strategies based on the data.
4. Students will develop a plan of action to implement the business decisions derived from the analyses.

Degree Requirements & Learning Objectives

This is a 36 credit program that leads to a Master of Science in Business Analytics degree.

The MS Business Analytics curriculum is designed as a 36-credit program and normally requires two years or four academic semesters to complete on a full-time basis. It consists of four elements: 6 credits of required core courses; 6 credits of Analytics Applications courses; 6 credits of Analytics Depth or additional Analytics Applications courses; and 18 credits of Analytics electives. Students may select electives from other graduate programs in the University.

Required Core Courses and Credits

- (both courses required)
- MBC 638 - Data Analysis and Decision Making 3 credit(s)

SCM 651 - Business Analytics 3 credit(s)

Analytics Applications Core (select 2)

- ACC 652 - Accounting Analytics 3 credit(s)
- MAR 653 - Marketing Analytics 3 credit(s)
- FIN 654 - Financial Analytics 3 credit(s)

SCM 702 - Principles of Management Science 3 credit(s)

Analytics Depth Core

Martin J. Whitman School of Management

- (Select 2 - can include any not already selected from Analytics Applications)
- MAS 766 - Linear Statistical Models I: Regression Models 3 credit(s)
- MAS 777 - Time Series Modeling and Analysis 3 credit(s)
- MAR 655 - Customer Relationship Management with Systems Applications and Products 3 credit(s)
- IST 687 - Introduction to Data Science 3 credit(s)
- IST 718 - Advanced Information Analytics 3 credit(s)
- IST 777 - Statistical Methods in Information Science and Technology 3 credit(s)
- IST 565 - Data Mining 3 credit(s)
- IST 657 - Basics of Information Retrieval Systems 3 credit(s)
- IST 719 - Information Visualization 3 credit(s)
- IST 722 - Data Warehouse 3 credit(s)
- IST 776 - Research Methods in Information Science and Technology 3 credit(s)
- CSE 581 - Introduction to Database Management Systems 3 credit(s)

CSE 787 - Analytical Data Mining 3 credit(s)

Analytics Electives

- (Select 6 courses - can include any not selected from above)
- IST 659 - Data Administration Concepts and Database Management 3 credit(s)
- IST 664 - Natural Language Processing 3 credit(s)
- CIS 554 - Object Oriented Programming in C++ 3 credit(s)
- CIS 667 - Introduction to Artificial Intelligence 3 credit(s)
- CPS 681 - Explorations in Computing and Programming 3 credit(s)
- CIS 731 - Artificial Neural Networks 3 credit(s)
- CSE 682 - Software Engineering 3 credit(s)
- CIS 685 - Simulation & Modelling 3 credit(s)

Other approved graduate business or analytics courses from Syracuse University

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.

Students must pass a comprehensive exam at the end of the last semester of the program.

Entrepreneurship & Emerging Enterprises, MS

John M. Torrens, Assistant Professor of Entrepreneurial Practice, 534 Whitman School of Management, 315-443-3486, jtorrens@syr.

edu

Program Description

The Master's in Entrepreneurship & Emerging Enterprises 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.

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.

Student Learning Outcomes

1. Be able to explain the major functional areas of business
2. Be able to explain the unique nature of entrepreneurship

Degree Requirements & Learning Outcomes

This is a 30 credit program which leads to a Master of Science in Entrepreneurship & Emerging Enterprises 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 675 - Entrepreneurial Family Business Management 3 credit(s)
- EEE 676 - Advanced Topics in Family Business Management 3 credit(s)
- EEE 682 - Entrepreneurial Marketing 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.

Entrepreneurship, MS (Distance Format)

Contact

John M. Torrens, Assistant Professor of Entrepreneurial Practice, 534 Whitman School of Management, 315-443-3486, jtorrens@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. 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.

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

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 Outcomes

This is a 30 credit program which leads to a Master of Science in Entrepreneurship degree.

Required Business Foundation (15 Credit Hours)

- EEE 620 - Foundations of Entrepreneurship 3 credit(s)
- MBC 631 - Financial Accounting 3 credit(s)
- MBC 633 - Managerial Finance 3 credit(s)
- MBC 636 - Marketing Management 3 credit(s)

MBC 645 - Strategic Management 3 credit(s)

Entrepreneurial Core - 4 Additional Courses (12 Credit Hours)

- EEE 621 - Corporate Entrepreneurship 3 credit(s)
- EEE 625 - Venture Capital 3 credit(s)
- MAR 757 - Managing Innovative Products and New Ventures 3 credit(s)

Other elective by permission

Required Entrepreneurship Core Capstone (3 Credits)

MBC 647 - Global Entrepreneurial Management 3 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.

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.

Student Learning Outcomes

1. Be able to create optimal (efficient) portfolios of stocks.

2. Value investments in projects and companies using advanced DCF-related approaches.

Degree Requirements and 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, real estate 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 (12 credits)
- FIN 751 - Corporate Financial Policy & Strategy 3 credit(s)
- FIN 756 - Investment Analysis 3 credit(s)
- FIN 855 - Financial Management 3 credit(s)
- MAS 766 - Linear Statistical Models I: Regression Models 3 credit(s) or
- MAS 777 - Time Series Modeling and Analysis 3 credit(s)

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, Derivatives
- FIN 657 - International Financial Management 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.

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.

Marketing, MS

Contact

Donald E. Harter

Associate Dean, Masters Program

Whitman School of Management

Graduate Programs, Room 315

315-443-3502

dharter@syr.edu

Faculty

S.P. Raj, Peter Koveos, Joseph Comprix, John Petosa, Pierre Yourougou, Anna Chemobai, Scott Lathrop, Eunkyoo Lee, Tridib Mazumdar, Amiya Basu, Susan Smith

Description

Marketing is the business function of creating, communicating and delivering value to customers with whom the firm seeks to establish and maintain profitable long term relationships. Effective marketing in today's dynamic and complex market place requires sophisticated strategic thinking that creatively matches a firm's unique capabilities with profitable market opportunities based upon solid analysis of market data and coordinated implementation of product, pricing, distribution and promotion policies. The Master of Science in Marketing degree program focuses on rigorous development of these competencies to prepare current and aspiring marketing professionals to play leading roles in the field of marketing. The program consists of business foundation courses (9 credits), required marketing core courses (6 credits), selectives (6 credits) and electives (9 credits), for a total of 30 credits. Students who have satisfactorily completed any of the management foundation courses before entering the program may substitute courses(s) from the list of approved courses. The required and elective courses supporting the program are and will continue to be regularly offered on campus.

Admission

U.S. Bachelor's degree (or its equivalent) from an accredited college or university is required. Applicants are required to submit a GMAT or GRE score. International students are required to submit a TOEFL score. Significant professional work experience is desirable.

Financial Support

Merit scholarships are available.

Degree awarded: MS in Marketing

Total Credits Required: 30

Transfer Credit

6 Credits in business coursework can be transferred from AACSB accredited schools with the approval of the Whitman graduate office.

Part-Time Study

U.S. citizens may pursue this program on a part-time basis.

Satisfactory Progress

Students are required to have a 3.0 grade point average or higher to maintain satisfactory progress.

Student Learning Outcomes

1. Our graduates will understand the role of the Marketing function and its relationship to other business functions.
2. Our graduates will be able to use information about a firm's competencies, competition, and

customers to develop recommendations for marketing decisions.

3. Our graduates will understand how Marketing managers utilize the firm's resources to create, deliver, and communicate value for customers, and capture value for the firm.

4. Our graduates will be able to gather, manipulate, and analyze data in order to design solutions for marketing problems.

5. Our graduates will be able to apply industry-standard frameworks, tools, and technologies to facilitate the marketing problem solving process.

Business Foundation Courses (9 Credits)

- MBC 601 - Economic Foundations of Business 1.5 credit(s)
- MBC 607 - Understanding Financial Statements 1.5 credit(s)
- MBC 609 - Accounting for Managerial Decisions 1.5 credit(s)
- MBC 628 - Fundamentals of Financial Management 1.5 credit(s)

MBC 638 - Data Analysis and Decision Making 3 credit(s)

Marketing Core Courses (8 Credits)

- MBC 603 - Creating Customer Value 1.5 credit(s)
- MBC 604 - Managing the Marketing Mix 1.5 credit(s)

MAR 754 - Seminar in Marketing Research 3 credit(s)

Marketing Core Selective Courses (6 Credits - Select 2 of 3)

- MAR 745 - Strategic Brand Management 3 credit(s)
- MAR 755 - Marketing Communications Strategy 3 credit(s)

MAR 757 - Managing Innovative Products and New Ventures 3 credit(s)

Selective Courses (9 Credits - Select 3)

- MAR 721 - Marketing and the Internet 3 credit(s)
- MAR 756 - Market Measurement and Analysis 3 credit(s)

MAR 600 - Selected Topics 1-6 credit(s)

Or the 3rd course from the "marketing core selective courses"

Under special circumstances and with the approval of the faculty advisor, students will be permitted to take no more than two non-marketing courses, which include courses cross-listed between marketing and non-marketing disciplines.

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 Faculty .

Management faculty:

See faculty listings under M.B.A. program in the Martin J. Whitman School of Management Faculty

Student Learning Outcomes

1. Analytical Thinking: Ability to analyze the validity and structure of a media business problem statement, identify the core questions and challenges, frame the relevant systemic variables, evaluate the viability of various solutions, and conduct research to address gaps in knowledge or understanding. (ACEJMC: F, L)

2. Ethical Conduct: An eagerness to involve other people and perspectives, integrating both into one's academic and professional work, and regular demonstration of integrity by strict adherence to relevant laws, and industry best practices. (ACEJMC: H, I)

3. Information Fluency: Graduates can derive and analyze multiple representations of quantitative information, including multivariate equations, numerical/tabular data, verbal/visual information, and use these to write tactical recommendations aligned to strategic goals. (ACEJMC: A, D, F, L)

4. Leadership & Teamwork: Graduates demonstrate the ability to respectfully lead (and contribute to) diverse teams, working in a cooperative and coordinated manner to accomplish stated goals and objectives. (ACEJMC: K, L)

5. Strategic Management: Ability to translate strategic business goals for a media or content business or unit into an innovative content management plan designed to accomplish those stated goals in an ethical manner, mindful of the institutional and cultural forces in play. (ACEJMC: A, C, E, H)

6. Technical Acumen: Ability to recognize, modify, and apply the technical, theoretical and managerial principles of content management, content optimization, and distribution in a digital media business or unit. (ACEJMC: B, C, F)

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

Kofi Appiah Okyere, Director of Graduate Accounting Programs, 619 Whitman School of Management, 315-443-3587, kaokyere@syr.edu

Program Description

The Master of Science in Professional 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, 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.

Student Learning Outcomes

1. Analyze financial statements. Evaluate the impact of factors affecting major functional areas of accounting.
2. Utilize strategies for effective communications.
3. Identify business problems and solutions using analytical and quantitative techniques in accounting research.
4. Apply concepts, models and tools of strategic analysis to evaluate the relationship between business decisions and accounting policy implications.

Degree Requirements & 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, 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 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)
- 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.

Professional Accounting, MS

Contact

Kofi Appiah Okyere, Director of Graduate Accounting Programs, 619 Whitman School of Management, 315-443-3587, kaokyere@syr.edu

Program Description

Accounting@Syracuse is a distance learning version of the M.S. degree in professional 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 Professional Accounting degree meets the educational requirements for CPA licensure in New York state and most other 150 hour states.

Admission

Applicants will be considered for the program based on their GMAT score, 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) professional work experience

Participants in the 30-credit program must have a qualified undergraduate degree in accounting.

Students who have little or no academic experience in accounting will work with an academic advisor after being admitted to the program in order to identify the appropriate coursework needed to successfully complete the online MSA degree. It is common for an additional 2-6 courses to be required to build this foundation of accounting knowledge. The program can typically be completed in 24 months or less. Students with an undergraduate degree in business will often take fewer additional courses than a student without a business foundation.

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.

This is a 30 credit program leading to a Master of Science in Professional Accounting degree. The rigorous Whitman Accounting@Syracuse program is designed for students with undergraduate degrees in accounting.

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.

Student Learning Outcomes

1. Have an advanced understanding of the major functional areas of accounting.
2. Be effective, persuasive communicators.
3. Demonstrate skills in accounting research, critical thinking and problem solving, supported by appropriate analytical and quantitative techniques.
4. Demonstrate the ability to think strategically about the relationship between business decisions and accounting policy implications.

Degree Requirements

Total of 30 credits taken in following areas:

Martin J. Whitman School of Management

- 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.

Student Learning Outcomes

1. Apply industry-standard tools and technologies to facilitate the problem solving process.
2. Identify strategic issues and differentiate them from tactical issues
3. 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.

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)

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 before the start of their second year 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

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:

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 127- 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

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 130 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 123-124 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.

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 the Army and Syracuse University. Established in 1952 by the Whitman School of Management and joined by the Maxwell School of Citizenship and Public Affairs in 2002, DCP was designed to provide an academic foundation of both business and government theory. It is a dual degree Master of Business Administration (MBA)/Executive Master of Public Administration (Executive MPA) offered to military and civilians. 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 MBA and Executive MPA 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 pass three Certified Defense Financial Manager examinations. Upon successful completion of the 14-month

tailored curriculum, graduates are 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)

- ACC 760 - Principles of Fraud Examination 3 credit(s)
- BUA 600 - Selected Topics 1-6 credit(s) Seminar in Resource Management (3 credits required)
- MBC 647 - Global Entrepreneurial Management 3 credit(s)
- BUA 786 - Seminar in Comptrollership and CDFM 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 & 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 129-130 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. 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

Martin J. Whitman School of Management

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.

Music Industry, BMus/MBA

Contact

Whitman Graduate Programs Office, Suite 315,
315-443-4327, busgrad@syr.edu

William DiCosimo, 119D Crouse College,
Syracuse, NY 13244-1010, 315.443.1216,
wjdicosi@syr.edu

Students will complete 120 credits for the Bachelor of Music in Music Industry degree and an additional 54 credits for the MBA degree.

3+2 Program

Program Description

The joint B.M. Music Industry/MBA program is designed to provide high-caliber students at Syracuse University with the opportunity to complete a bachelor's degree in the Setnor College of Music 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 Setnor 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, references, and application essay.

Degree Requirements

Students admitted to the MBA program will be awarded their B.M. in Music Industry degree concurrently with their MBA degree, as they will complete their B.M. and MBA requirements during their fifth year.

3+2 Program Requirements:

Years 1 & 2: Enrollment in required

undergraduate coursework

Year 3: Enrollment in undergraduate courses and summer MBA coursework

Year 4: Enrollment in some MBA courses and summer MBA internship

Year 5: Completion of BM 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.

Student Learning Outcomes

1. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

2. Demonstrate functional keyboard skills to support musicianship at the appropriate level

3. Demonstrate an understanding of the common elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures

4. Demonstrate the ability to complete aural dictation at the appropriate level

5. Demonstrate growth in artistry and technical skills in an ensemble setting and collaborative competency and knowledge of ensemble repertoire

6. Demonstrate a functional knowledge of music history and repertoire through the present time, including the study and experience of musical languages and cultures

7. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

8. Demonstrate growth in artistry and technical skills in an ensemble setting and collaborative competency and knowledge of ensemble repertoire

9. Demonstrate knowledge and skills sufficient to work as a leader, and in collaboration, on matters of musical interpretation

10. Demonstrate an understanding of multiple business structures, articulate the layout of the current media landscape, and deconstruct how current music industry contracts are structured

11. Demonstrate industry specific skills in the professional business environment of an internship, have the knowledge and skills to secure a job in the music industry, and understand the function and relationships between each of dozens of unique career paths

12. Articulate how to market a musical product in the current media landscape

13. Demonstrate the ability to develop a business plan focused on a music centric company and articulate opportunities in the areas of entrepreneurship in the arts

Program Requirements

- Students are required to achieve 5 credits of music industry practicum (internships). There are opportunities in the immediate campus area during the academic year and numerous opportunities with high-profile music industry businesses in major metropolitan areas such as New York City.

- Music Requirements: 96 credits
- Principal Performance Area: 11 credits
- Secondary Performance Area: 4 credits (Keyboard Skills unless Piano or Organ student)

MBA Requirements: 54

Music Theory, Ear Training and Conducting: 18 credits

- CTG 545 - Basic Conducting 2 credit(s)
- MTC 145 - Diatonic Harmony I
- MTC 146 - Diatonic Harmony II
- MTC 245 - Chromatic Harmony I
- MTC 246 - Chromatic Harmony II
- MTC 147 - Ear Training I
- MTC 148 - Ear Training II
- MTC 247 - Ear Training III

MTC 248 - Ear Training IV

Music History and Literature: 9 credits

- MHL 185 - Introduction to World Music
- MHL 267 - European Music before 1800
- MHL 268 - European and American Music Since 1914

Large Ensembles: 7 credits

One Large Ensemble Required for Each of 7 Semesters in Residence

Small Ensembles: 2 credits

Weekly Student Convocations: 0 credits

Required for Each Semester in Residence

Music Electives: 6 credits

Music Industry Requirements: 39 credits

- MUI 103 - Music Industry Forum
- MUI 203 - Music Industry Forum
- MUI 303 - Music Industry Forum
- MUI 403 - Music Industry Forum
- MUI 200 - Selected Topics
- MUI 205 - Music Industry I
- MUI 206 - Music Industry II
- MUI 305 - Music Industry and the Media
- MUI 307 - Studio Recording
- MUI 308 - Live Sound and Concert Recording
- MUI 310 - Soyars Leadership Lecture Series (x6) 1 credit each
- MUI 320 - Syracuse University Recordings

Martin J. Whitman School of Management

- MUI 402 - Current State of the Music Industry
- MUI 405 - Music Industry Law and Ethics
- MUI 406 - Topics in Music Industry
- RAE 404 - Social Media for the Music

Academic Requirements: 12 credits

- WRT 105 - Studio 1: Practices of Academic Writing
- WRT 205 - Studio 2: Critical Research and Writing
- PSY 205 - Foundations of Human Behavior
- SOC 101 - Introduction to Sociology

Academic Electives: 3 credits

MBA Courses: 54 credits

- MBC 600 - Selected Topics 1-6 credit(s)
- 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)
- MBA Selective: 3 credits

MBA Electives: 18 credits

Study Abroad

During their academic career, industry students have the opportunity to study abroad in London and Strasbourg or spend a semester interning and taking classes in L.A.

Total Credits Required: 165

Degree Awarded

BMus in Music Industry/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
- ECS 759 - Sustainability-Driven Enterprise 3 credit(s) or
- EST 796 - Sustainability-Driven Enterprise 3 credit(s)

6 credits of electives

Martin J. Whitman School of Management

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 652 - Accounting Analytics

Martin J. Whitman School of Management
3 credit(s) Every semester
Accounting analytics including Benford's Law,

current and prior period data, anomaly detection, correlation and time series detection, risk assessment and risk scoring, and purchasing card transaction fraud.

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 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, 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 675 - Entrepreneurial Family Business Management

Martin J. Whitman School of Management
3 credit(s) At least 1x fall or spring
Double Numbered with: EEE 375
Examines family business issues, such as managing relationships, communication and conflict, ownership and governance, strategy, and succession. Focus is entrepreneurial management of family firms, including maintaining an entrepreneurial spirit throughout the firm and across generations. Additional work required of graduate students.

EEE 676 - Advanced Topics in Family Business Management

Martin J. Whitman School of Management
3 credit(s) At least 1x fall or spring
Double Numbered with: EEE 476
Covers advanced topics in family business management, such as taxation, establishment of trusts and estates, legal transfer of ownership, legal forms and valuation. Additional work required of graduate students.

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.

EEE 932 - Contemporary Entrepreneurship Research

Martin J. Whitman School of Management
3 credit(s) Irregularly

A broad survey of major topics in contemporary entrepreneurship research. Covers the primary theoretical underpinnings of the field and to important entrepreneurship topics.

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 607 - Bank Management

Martin J. Whitman School of Management
1.5 credit(s) At least 1x fall or spring

This course will describe how a bank operates and the unique set of financial statements and terms that are specific to the banking industry.

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 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 652 - Working Capital Management

Martin J. Whitman School of Management
3 credit(s) At least 1x fall or spring
Double Numbered with: FIN 452

Introduction to corporate financial decision-making related to daily operations, including balanced scorecard use, financial forecasting, management of current assets and liabilities, international issues, and use of information technology. Case studies are emphasized. Additional work required of graduate students.

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 654 - Financial Analytics

Martin J. Whitman School of Management

3 credit(s) At least 1x fall or spring
An introduction to methods and tools useful in decision-making in the financial industry, including: macroeconomic event studies, analysis of term structures, Morningstar equity data, style analysis, credit card receivables, trading analytics, execution algorithms, etc.

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 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

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 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

MAR 653 - Marketing Analytics

Martin J. Whitman School of Management
3 credit(s) Every semester
Marketing analytics techniques including discriminant analysis, logit, cluster analysis, factor analysis, and conjoint analysis. Marketing decision support models such as new product diffusion, test-market, price and sales promotion decision models.

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 AND 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

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, 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.

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 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

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 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 651 - Business Analytics

Martin J. Whitman School of Management
3 credit(s) Every semester
Business analytics including advanced spreadsheets; relational database and SQL queries; statistical analysis in R including multi-linear regression, interactions, tests for regression assumptions, logit, probit; neural networks; and dashboards.

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

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

Maxwell School of Citizenship and Public Affairs

David Van Slyke, Dean
200 Eggers Hall
www.maxwell.syr.edu/

About the School

David Van Slyke, Dean
200 Eggers Hall

The Maxwell School of Citizenship and Public Affairs was established in 1924 to teach citizenship and develop leaders with both strong social science backgrounds and the practical skills required for public service. Today the School is the home to six social science disciplines, interdisciplinary undergraduate and graduate programs, and graduate professional programs that train leaders for diverse careers here and abroad.

With its 160 faculty members, 95 staff, 750 graduate students and 2,000 undergraduate majors, Maxwell produces a significant amount of new knowledge and educates students to pursue careers in the public and private sectors, including higher education.

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, analysts, and leaders.

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 a Public Administration PhD, and an interdisciplinary Social Science PhD. In addition, four professional degrees are offered in: Public Administration (M.P.A.), International Relations (M.A.I.R.), and, for mid-career executives, the Public Administration (Executive M.P.A.) and the International Relations (Executive M.A.I.R.)

Executive Education

Through its Executive Education program, Maxwell offers several executive master's degrees, certificates of advanced study, and training programs for mid-career professionals from across the globe. These students, scholars and participants study here from a few weeks to more than a year. Additionally, Executive Education hosts the Hubert H. Humphrey Fellowship and Edward R. Murrow Fellows and also provides training programs for a wide array of U.S.-based and international NGOs, public

sector organizations and agencies, governments and universities.

Centers and Institutes

Each department and program in the Maxwell School prioritizes research. Many faculty members also participate in one or more of nine research centers and institutes that provide valuable resources to faculty clustered around significant topics. Among the research centers at the Maxwell School are the Aging Studies Institute, the Program for the Advancement of Research on Conflict and Collaboration, the Center for Environmental Policy and Administration, the Lerner Center for Public Health Promotion and the Institute for National Security and Counterterrorism. The Aging Studies Institute, the Institute for the Study of the Judiciary, Politics and the Media, and the Institute for National Security and Counterterrorism all involve faculty from across the campus.

The Maxwell School also has two institutes that focus on major domestic and international issues: the Alan K. Campbell Public Affairs Institute and the Moynihan Institute of Global Affairs. Through the involvement of visiting scholars, reflective practitioners, and the broader Syracuse University 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 around the world. 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

a seminar series, thematic conferences, and the Gerontology Education Workshop.

Center for Environmental Policy and Administration (nondegree)

Director Peter Wilcoxon

426 Eggers Hall

Faculty: Jacob Bendix, A.H. Peter Castro, Matthew Huber, W. Henry Lambright, Allan Mazur, John McPeak, Susan Millar, Thomas Perreault, David Popp, Sarah Pralle, Jane M. Read, Farhana Sultana, Robert Wilson

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 a close working relationships with 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) and with the faculty and staff of the Syracuse Center of Excellence in Environmental and Energy Systems. maxwell.syr.edu/cepa

Center for Policy Research (nondegree)

Director Leonard Lopop
426 Eggers Hall

315-443-3114

Associate Director for Metropolitan Studies Program John Yinger
Associate Director for Budget and Administration Margaret Austin

Maxwell School of Citizenship and Public Affairs

Faculty: Badi Baltagi, Robert Bifulco, Leonard Burman, Thomas Dennison, Alfonso Flores-Lagunes, Sarah Hamersma, Madonna Harrington Meyer, Colleen Hefflin, William Horrace, Yilin Hou, Hugo Jales, Jeffrey Kubik, Yoonseok Lee, Andrew London, Leonard Lopoo, Amy Lutz, Yingyi Ma, Katherine Micheltore, Jerry Miner, Shannon Monnat, Jennifer Karas Montez, Jan Ondrich, John Palmer, David Popp, Stuart Rosenthal, Michah Rothbart, Rebecca Schewe, Amy Ellen Schwartz, Saba Siddiki, 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 advanced study. Current activities focus on the following three themes: (1) The Transnational NGO Initiative, which works on understanding the challenges facing civil

society organizations that work in a transnational context, and determining what kinds of skills are needed, to lead such endeavors; (2) The Mapping Global Insecurity Project which studies the geopolitical areas that insurgent, terrorist, and transnational criminal groups govern and the illicit economy that results; and (3) the Transboundary Crisis and Disaster Management Project which explores how such incidents are managed and the linkages between engineers, policymakers, and citizens in these endeavors.

The Moynihan Institute is also host to six regional centers: the South Asia Center, the East Asia Program, the Moynihan European Research Center, The Program on Latin America and the Caribbean, the Middle Eastern Studies Program, and the Korean Peninsula Affairs Center. The Regional centers provide the Syracuse University student body with changes 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

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) is a multidisciplinary, university-based center for the study of national security, international security, and counterterrorism, offering law and graduate certificates of advanced study and conducting incisive research and timely policy analysis.

INSCT'S extensive national security capabilities are founded on the expertise of INSCT Director William C. Banks-College of Law Board of Advisors Distinguished Professor and Maxwell School Professor of Public Administration and International Affairs-and augmented by affiliated faculty and other experts throughout the national security, international security, and counterterrorism communities at SU and beyond. Banks helped set the scholarly parameters of this field by co-authoring its two leading textbooks-National Security Law (Aspen, 6th ed.) and Counterterrorism Law (Aspen, 3rd ed.)

INSCT's work addresses key challenges pertaining to national and international security, counterterrorism, postconflict reconstruction, cybersecurity, defense strategy, human security, and community resilience. Through structured academic support, INSCT faculty and staff help advance student-based research and analytical proficiency, and, to prepare for careers, students engage in advanced coursework, guided research projects, crisis simulations, internships, capstone projects, and networking events. In addition, INSCT provides study abroad options and sponsors student law and security organizations.

Founded in 2003 as a partnership between SU College of Law and SU Maxwell School, INSCT continues to advance its mission to be an internationally recognized center for interdisciplinary teaching, for multi-method research into complex security problems, and for public service to practitioners grappling with intractable security issues. Agile and responsive, INSCT's educational and research programs continue to track the changing nature of these challenges, as battlefields become virtual, wars become asymmetric, homeland security becomes critical, human rights crises become commonplace, and the rule of law becomes indispensable.

Program for the Advancement of Research on Conflict and Collaboration (nondegree)

Director Catherine Gerard

400 Eggers Hall

315-443-2367

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, 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

Maxwell School of Citizenship and Public Affairs

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. A Certificate of Advanced Study (CAS) in conflict resolution is 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.

Master's students are eligible for financial awards, including fellowships, assistantships (partial or full), partial tuition scholarships, and grants-in-aid.

Anthropology Overview

Douglas V. Armstrong, Chair

209 Maxwell Hall
315-443-2200

Faculty: Douglas V. Armstrong, Hans C. Buechler, John S. Burdick, A.H. Peter Castro, Christopher R. DeCorse, Azra Hromadzic, Shannon A. Novak, Deborah Pellow, 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

Gary Engelhardt, Chair

110 Eggers Hall

315-443-3612

Faculty: Merima Ali, Elizabeth Ashby, Badi Baltagi, Leonard E. Burman, Kristina Buzard, Donald H. Dutkowsky, Gary V. Engelhardt, Jerry Evensky, Alfonso Flores-Lagunes, William Horrace, Hugo Jales, Leyla Karakas, Jeffrey D. Kubik, Derek Laing, Yoonseok Lee, Chung-Chin (Eugene) Liu, Mengxiao (Michelle) Liu, Mary E. Lovely, Devashish Mitra, Piyusha Mutreja, Inge O'Connor, Jan Ivar Ondrich, Stuart S. Rosenthal, Amy Ellen Schwartz, Abdulaziz Shifa, Perry Singleton, Aron Tobias, Bhavneet Walia, Yulong Wang, Michael Wasylenko, 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

Jamie Winders, Chair

144 Eggers Hall

315-443-2605

Faculty: Jacob Bendix, Peng Gao, Timur Hammond, Matthew Huber, Natalie Koch, Susan W. Millar, 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.

Maxwell School of Citizenship and Public Affairs

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 Program for the Advancement of Research on Conflict and Collaboration, the Center for Environmental Policy and Administration, and the Moynihan Institute for Global Affairs. Strong links also exist with the department of Food Studies, Women's and Gender Studies, Earth Sciences, Civil and Environmental Engineering, the School of Architecture, and with the State University of New York College 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 Latin America and the Caribbean, South Asia, East Asia, Europe, Canada, and throughout the U.S.

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 critical social theory, to interrogate the production of urban spaces and experiences.

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.

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.

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 restructure space, place, region, and scale.

Nature, Society, Sustainability: Syracuse geographers view nature-society relations dialectically. Central to this vision is a focus on the relations of power through which particular forms of nature are produced and governed. We share a commitment to critical scholarship and environmental justice. We value both critical empirical - often field-based - investigation and critical social theory. Nature-society scholarship at Syracuse University encompasses several clusters, including political ecology and the political economy of nature; environmental governance; environmental history; natural hazards and social vulnerability; environment and development; environmental justice; and the social dimensions of environmental change. In recent years, Syracuse geographers have conducted research on the gendered dimensions of water governance in Bangladesh; climate change politics in the United States; the historical development of the US petro-chemical industry; extractive industries and rural livelihoods in Bolivia; forest fire dynamics and management in California; and environmental mapping and indigenous geographies in Guyana.

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 Physical Geography Research Laboratory, which is equipped for a variety of soil and sediment analyses, and includes a Sedigraph 5120 for particle size analysis.

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. Syracuse Community Geography involves students in working directly with community organizations to solve real-world problems. Faculty and graduate students conduct research on a range of key social and environmental issues, with recent topics including spatial analysis of hunger and food justice in the city of Syracuse; mapping local nature preserves; geospatial surveillance technologies; modeling channel migration; and use of remote sensing to analyze tropical forest structure, demography, and certified forestry. Graduate students have access to two laboratory facilities: the Geographic Information and Analysis Laboratory in Eggers Hall, and the Integrated Spatial Analysis Laboratory in Crouse-Hinds Hall.

Within the framework of these principal clusters, students pursue individually designed programs, assisted by their advisor and 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, the department maintains strong collaborative relations with academic departments across campus, as well as with allied departments at other colleges and universities in the region. We also organize a colloquium series every semester that brings distinguished scholars to the Department, and occasionally organize conferences and symposia across a range of topics.

We typically have about 35 students in the program, of whom 20-25 are in residence. Each student has an advisory committee, consisting of the principal advisor plus additional faculty members. The committee advises the student and regularly evaluates progress toward the M.A. or Ph.D. degree.

History Department Overview

Norman Kutcher, Chair

Director of Graduate Studies Alan Allport
145 Eggers Hall
315-443-2210

Faculty Alan Allport, Susan Branson, Brian Brege, Craig B. Champion, Andrew W. Cohen, Mikkel Dack, Albrecht Diem, Michael R. Ebner, Carol Faulkner, Jeffrey Gonda, Paul M. Hagenloh, Samantha Kahn Herrick, Amy Kallander, George Kallander, Osamah F. Khalil, Radha Kumar, Norman A. Kutcher, Chris Kyle, Elisabeth D. Lasch-Quinn, Gladys McCormick, Tessa Murphy, Mark G. Schmeller, Martin S. Shanguhya, Junko Takeda, Margaret Susan Thompson

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

Maxwell School of Citizenship and Public Affairs

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 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

Brian D. Taylor, Chair
100 Eggers Hall
315-443-2416

Faculty: Lamis Abdelaaty, Kristi J. Andersen, Michael Barkun, Hossein Bashiriyeh, Kenneth Baynes, James P. Bennett, G. Matthew Bonham, Mehrzad Boroujerdi, Keith J. Bybee, Horace Campbell, Matthew R. Cleary, Elizabeth F. Cohen, Francine D'Amico, 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, Audie Klotz, W. Henry Lambright, Robert D. McClure, Daniel McDowell, Glyn Morgan, 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, Margaret Susan Thompson, Danielle M. Thomsen, Emily A. Thorson, Stuart J. Thorson, Simon W. Weschle, Steven M. White

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

Robert Bifulco, Chair and Associate Dean

215 Eggers Hall

315-443-4000

William Banks, Catherine Bertini, Robert Bifulco, Edwin A. Bock, Walter Broadnax, Stuart Bretschneider, Stuart Brown, Leonard Burman, Julia Carboni, Renée de Nevers, Thomas H. Dennison, Vernon L. Greene, Sarah Hamersma, Colleen Helflin, Yilin Hou, Masood Hyder, W. Henry Lambright, Jesse D. Lecy, Leonard Lopoo, Katherine Michelmore, John G. McPeak, Robert Murrett, Tina Nabatchi, Sean C. O'Keefe, John L. Palmer, Rebecca Peters, David C. Popp, Michah Rothbart, Sabina Schnell, Larry Schroeder, Amy Ellen Schwartz, Saba Siddiki, David Van Slyke, Peter J. Wilcoxon, Douglas A. Wolf, John M. Yinger, Matt Young

The Department of Public Administration and International Affairs offers management, finance, policy and international affairs coursework exploring a broad range of topics underlying contemporary global challenges. Modern society demands innovative leadership, highly skilled public managers, analysts and domestic and international issue experts. 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 establishing the American Society for Public Administration (ASPA), and served as its first president. The journal *Public Administration Review* was also founded at Maxwell in 1937.

Maxwell's Master of Arts in International Relations was established in 1993 to build on the School's interdisciplinary breadth, and the professional degree programs were merged into one department to take advantage of their synergies. These synergies allow the department to offer master's degrees in public administration and international affairs, as well as a doctoral degree in public administration.

Drawing upon the interdisciplinary strength of the Maxwell School as a social science research institution, the Master of Arts in International Relations provides proficiencies in research, analysis, and project management, as well as subject-matter expertise in peace, security, and conflict, international development, governance and diplomacy, and international trade, as well as a wide variety of area studies.

The Master of Public Administration coursework provides proficiencies in public and nonprofit management, public budgeting and finance, public policy analysis and implementation, environmental policy and management, health policy and management, urban policy and city management, and collaborative governance.

Both degree programs provide experiential learning opportunities, ensuring graduates

effectively apply core skills to management, budget, programmatic and policy challenges in international and national settings.

More than 8,000 departmental alumni are employed in federal, state, and local governments, foundations, private firms, non-governmental and international organizations worldwide. These alumni lead on international and domestic public policy issues. Graduates of the Ph.D. program serve on the faculties of many leading schools of graduate public administration and policy education as well as serve in think tanks and research organizations.

Sociology Department Overview

Prema Kurien, Chair

302 Maxwell Hall

315-443-2347

pkurien@maxwell.syr.edu

Jennifer Karas Montez, Graduate Director

jmontez@maxwell.syr.edu

Faculty: Edwin Ackerman, Cecilia Green, Madonna Harrington Meyer, Prema Kurien, Scott Landes, Andrew London, Amy Lutz, Yingyi Ma, Shannon Monnat, Jennifer Karas Montez, Jackie Orr, Arthur Paris, Gretchen Purser, Rebecca Schewe, Nazanin Shahrokni, Merril Silverstein, Janet Wilmoth, Terrell Winder

Affiliated Faculty: Peter Blanck, Linda Carty, Richard Loder, Chandra Talpade Mohanty, David Sonnenfeld, Rick Welsh

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, multidisciplinary research centers, and area studies centers at the Maxwell School and in other schools and colleges across the campus.

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. A core theory course incorporates classical foundations of Sociology, as well as more contemporary sociological theory. Students are trained in quantitative methods and statistics, as well as qualitative methods including interviewing, ethnography, and participant observation. After doctoral students complete the core theory, and 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

Maxwell School of Citizenship and Public Affairs

toward students who are pursuing a doctoral degree. The Sociology Department typically admits six to eight 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.

In addition to scholarly research activity, the Sociology Department stresses teacher training. Students are active participants 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.

Student Learning Outcomes

1. Explain and evaluate anthropological theory generally and apply relevant theories to specific anthropological problems
2. Describe, explain, and evaluate anthropological research methods applicable for their subfield and demonstrate ability to choose and use relevant research methods in relation to the examination of specific research problems
3. Demonstrate capacity to produce publishable quality research by formulating, designing, and conducting theoretically and methodologically rigorous research
4. In a chosen field of specialization, explain and illustrate the connections between social structure, cultural values, and individual experience; the functioning of social institutions; and the ways social inequality and power operate

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 archaeology 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 archaeology 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)

Archaeology 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

Archaeology 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 December 15 of their second year in residence. (The graduate director will serve as an interim advisor until an advisor is selected.)

Documentary Film and History, MA

Contact:

Richard Breyer, Co-Director
315-443-9249, rlbreyer@syr.edu

Norman Kutcher, Co-Director
315-443-1264, nakutcher@maxwell.syr.edu

Faculty

Richard L. Breyer, Richard Dubin, Tula Goenka, Sharon R. Hollenback, Norman A. Kutcher, Elizabeth Lasch-Quinn, 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.

Student Learning Outcomes in Documentary Film and History

1. Identify the principles and laws associated with free speech and press for the US, as well as compare the American system of freedom of expression with others around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances
2. Critically, creatively, and/or independently consider problems and issues relevant to the communications professions
3. Conduct research and/or evaluate information by methods appropriate to the communications professions
4. Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve

Maxwell School of Citizenship and Public Affairs

5. Evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness
6. Apply tools and technologies appropriate for the communications professions in which they work
7. Produce films that tell stories using best practices in documentary filmmaking

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) taken three times
- 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 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 (GRE) 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. Admissions preference is given to students with TOEFL scores in the range of 100 (ITOTL) or above. Graduate assistantships and University Fellowships are not awarded to students studying for the M.A. degree or other non-terminal disciplinary degree. Courses available on a regular basis include microeconomic and macroeconomic theory, mathematical economics, public finance, economic development, international economics, and health economics. 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.

Student Learning Outcomes

1. Master Fundamental Knowledge of Microeconomic Theory
2. Master Fundamental Knowledge of Macroeconomic Theory
3. Master Fundamental Knowledge of Econometric Methods
4. Explore Synergies between Economics and another Subject (Dual Degree Only)

Degree Requirements:

The M.A. degree requires 30 credits including 5 mandatory courses and 5 electives chosen in consultation with the M.A. degree Director. The cumulative grade point average for the courses taken towards credit for the M.A. degree must be 3.0 or higher.

The mandatory courses required for the M.A. degree include:

•3 credits of microeconomic theory: ECN 601 - Survey Microeconomic Theory; ECN 611 - Microeconomics I; or ECN 612 - Microeconomics II

•3 credits of macroeconomic theory: ECN 602 - Survey Macroeconomic Theory; ECN 613 - Macroeconomics I; ECN 614 - Macroeconomics II; or ECN 610 - Special Topics in Economics

•6 credits of statistics and econometrics, which are normally satisfied by taking ECN 521 - Economic Statistics and ECN 522 - Econometric Methods; but could include ECN 620 - Foundations of Econometrics; ECN 621 - Econometrics I; ECN 622 - Econometrics II; or other courses chosen in consultation with the academic advisor.

•3 credits of mathematical economics: ECN 505 - Mathematical Economics or ECN 605 - Mathematics for Economists.

Each course of microeconomics theory and macroeconomic theory should be with a grade of B- or better.

For elective courses, students may take courses numbered between 500 and 599, but 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 academic advisor. Though it uncommon, students can conduct independent research under the supervision of a faculty member, normally for 3 credits and occasionally for 6 credits in electives. This option requires the student to produce a substantial research paper (i.e., a master's thesis) demonstrating a mastery of relevant economic theory and advanced statistical methods. The thesis must be defended in an oral examination and approved by the thesis committee.

Geography, MA

Student Learning Outcomes

1. Design and conduct independent research in their chosen field in the discipline
2. Communicate the results and significance of their research in both written and oral form
3. Examine social and environmental processes, with a particular focus on space and place, critical theory, practical application, analysis and intervention
4. Examine social and environmental processes, with a particular focus on space and place, critical theory, practical application, analysis and intervention in chosen field within the discipline of Geography
5. Follow established ethical guidelines for research and teaching

Program Requirements

The M.A. program in geography gives the student

Maxwell School of Citizenship and Public Affairs

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. Students may write a master's thesis or two master's papers, and may count either option as six thesis credits toward their required total. 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 additional work, such as attending courses, auditing, or reading.

The student's advisor and committee approve the topic for and supervise research and the writing of the master's thesis or two-paper option, the final drafts of which must be defended in a formal defense involving the students' committee.

History, MA

Student Learning Outcomes

1. Understand historiographical theory and method
2. Master requisite foreign language(s) for proposed field of study
3. Design and execute historical research (this may include theoretical models from other social sciences)
4. Ability to identify, gain access to, and utilize historical archives and databases
5. Design, write a proposal for, and conduct research leading to production of a manuscript, worthy of presentation to a peer audience and submission for publication
6. Communicate ideas and arguments in clear, concise, well-organized papers

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 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

The interdisciplinary Master of Arts in International Relations (MAIR) degree combines the Maxwell School's long-standing engagement with contemporary world problems with scholarly and practical approaches to addressing them. The degree incorporates an academic study and professional field training to prepare students to address pressing international challenges from positions in the public, non-profit, and private sectors. Over their 16-month period of study, students complete 40 credits of course work offered by the Maxwell School's social science departments.

The degree incorporates academic study and professional field training to prepare students to address pressing international challenges from positions in the public, non-profit, and private sectors. Over their 16-month period of study, students complete 40 credits of coursework offered by the Maxwell School's social science departments.

Student Learning Outcomes

1. Apply international relations theories to: Explain changing international events; Develop policy choices to address international problems.
2. Demonstrate the ability to effectively use International Relations research through recognizing proper social science research methods; evaluate policies based on international affairs research
3. Analyze core macro- and micro-economic principles and analyze their impact on international economic policy
4. Demonstrate professional management and leadership skills relevant to actors in the international arena
5. Apply statistical analysis to identify policy challenges and assess responses
6. Analyze international relations challenges from an interdisciplinary perspective

MAIR Degree Overview

Featuring a global student body, the MAIR degree provides [DVS1] rigorous academic and professional training for positions in the public, non-profit, and private sectors.

The degree emphasizes an interdisciplinary curriculum drawn from across the social science departments of the Maxwell School. It builds on the research conducted in its internationally-focused research centers, such as the Program for the Advancement of Research on Conflict and Collaboration, the Institute for National Security and Counterterrorism, and the Daniel Patrick Moynihan Institute of Global Affairs and its seven regionally focused centers. 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, as well as the State University of New York's New York

College of Environmental Science and Forestry (SUNY-ESF).

The MAIR degree requires 40 credits of coursework. All students complete a core curriculum of five courses, to ensure proficiency in international relations theory, economics, management, program and research evaluation, and statistics. By the end of their studies, students will also show significant cultural and linguistic competencies by demonstrating proficiency in a second, modern foreign language

Students choose one interdisciplinary signature course, which serves as the foundation for a career track specialization in an international relations sub-field. These tracks consist of 12 credits of coursework in one of the following areas: peace, security, and conflict, international development, governance and diplomacy, and international trade, as well as a wide variety of area studies of Africa, Asia, Europe, Latin America and the Caribbean, and the Middle East.

Elective courses offer an understanding of the pressing challenges present in the international system. These course options include the Maxwell School's internationally-focused social science electives or other internationally-focused graduate-level coursework at Syracuse University.

Students pair academic study with practice in the discipline through a required professional internship experience. This internship experience is conducted in Washington, D.C. or overseas through a multitude of Global Program offerings hosted by the Maxwell School or other Syracuse University international partnerships.

International Relations (Executive)

Margaret Lane, Assistant Director, Executive Education

219 Maxwell Hall
315-443-8708

melane02@syr.edu

Student Learning Outcomes

1. Describe and assess their role and responsibilities as global citizens and leaders
2. Demonstrate expertise in a substantive area of international relations
3. Analyze the political and economic context of a chosen region of the world--Africa, Asia, Europe, Latin America, or the Middle East
4. Explain and assess leadership and managerial theories, skills, and competencies
5. Discuss their role and potential as public administrators

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 - Executive Education Seminar: Managerial Leadership, PAI 996 - Master's Project Course, 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.

Political Science, MA

Student Learning Outcomes

1. **Presentational Skills:** Present the results of their research and/or understanding of their topic and/or sub-discipline
2. **Writing Skills:** Develop and express issues and ideas in different writing forms
3. **Research Skills:** Use quantitative and/or qualitative methods to conduct research
4. **Disciplinary Competence:** Analyze interrelationships between political, economic, social, cultural, and historical forces in the field of political science and two-sub-discipline
5. **Sub-Field Mastery:** Analyze interrelationships between political, economic, social, cultural and historical forces in a sub-field

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. Students may write a thesis (6 Credits). The choice must be made by the end of the first semester. The thesis topic and advisor must be approved by the Director of Graduate Studies. Whether electing to write a thesis or not, 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 to working in the private sector, the department allows considerable flexibility in course selection.

Public Administration

The Master of Public Administration M.P.A. degree emphasizes professional education for future public service leaders. By offering a variety of fields in which a student can gain substantive focus while obtaining training in public administration and policy, the degree responds to the needs of tomorrow's managers and policy analysts. Students have access to Syracuse University's graduate courses as well as those at the State University of New York College of Environmental Science and Forestry. Working with advisors, students have ample opportunity to create an individualized appropriate programs of study.

Student Learning Outcomes

1. **Demonstrate competence in the public-sector budgeting process, including:**
 - Design and produce a flexible budget for a government or nonprofit organization;
 - Apply concepts and measures of efficiency, equity, and adequacy to the evaluation of government revenue policies;
 - Apply concepts of direct, indirect, fixed, step, and variable costs to the analysis of expenditure needs
2. **Identify core competencies necessary for helping to shape the organizational environment (broadly defined) in which they operate and for managing individuals, groups, clients, and programs**
3. **Analyze various market scenarios to assess how goods and services will be allocated, and assess the efficiency and distributional impacts of government intervention in markets**
4. **Use data to produce and interpret a range of descriptive and inferential statistics, as well as analyze the strengths and weaknesses of statistical concepts and techniques used in policy analysis, management analysis and research to develop recommendations for improvement**
5. **Assess the conditions under which certain managerial tools may be applied to improve programmatic results and overall organizational effectiveness**
6. **Effectively summarize, appraise, and communicate technical and professional information, through both oral and written media**

MPA Degree Overview

The degree requires a residency of 12 to 18 months. All students begin the program in early July. Full-time students complete the program the following June.

The MPA degree requires 40 credits of coursework. 25 of these credits satisfy core requirements, ensuring proficiency in economics, quantitative analysis, organization and management theory, public budgeting and finance, and the political context of public management.

Additional elective coursework satisfies the remaining 15 credits. These elective courses may be selected from the public administration and international affairs department, other Maxwell School social science departments, or elsewhere in the University.

Degree requirements are flexible enough to allow a student to design a program in state and local government, financial management and analysis, public and nonprofit management, international development administration, environmental policy and administration, international and national security policy, health management and policy, and social policy while completing the MPA core requirements.

Public Administration (Executive)

Margaret E. Lane Assistant Director, Executive Education

219 Maxwell Hall
315-443-8708

melane02@syr.edu

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 - Executive Education Seminar: Managerial Leadership, PAI 897 - Fundamentals of Policy Analysis, and PAI 996 - Master's Project Course. Four of the additional seven elective courses may be selected from

Maxwell School of Citizenship and Public Affairs

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 - Executive (Distance Learning Format)

Contacts

- Director: Steve Lux, sjlux@syr.edu
- Associate Director: Catherine M. Gerard, cgerard@syr.edu
- Assistant Director, Student Programs: Margaret E. Lane, melane02@syr.edu, 315-443-8708
- Administrative Assistant: Denise Breen, dmbreen@syr.edu, 315-443-3159 219 Maxwell Hall

Core and Research Faculty

- Bob Bifulco, Chair and Professor
- David Van Slyke, Dean and Louis A. Bantle Chair in Business and Government Policy
- Tina Nabatchi, Associate Professor
- Jesse Lecy, Assistant Professor
- Larry Schroeder, Professor Emeritus

Clinical Faculty

- Catherine Gerard, Associate Director, Executive Education; Director, Program for the Advancement of Research on Conflict and Collaboration
- Steve Lux, Director, Executive Education

Program Description

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 at least five 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 public sector organizations of all types including 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 15 months of full-time study (2 courses per quarter) or in a variety of part-time formats.

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 other SU online education offers, with permission, from another college or school of the University.

Admission

Applicants must have 5 or more years of mid-level professional experience, including management responsibilities that demonstrate increasing levels of supervision of projects and personnel. International students must provide evidence of English proficiency. A score of at least 100 is required on the internet based TOEFL test. GRE not required.

Degree Awarded: Master in Public Administration

Total Credits Required: 30 credits

Transfer Credit

With permission, students may transfer up to 6 credits of equivalent graduate level coursework.

Part-time Study

Students may complete the program on a part-time basis as long as the degree is completed within seven years as stipulated by Syracuse University policy.

Satisfactory Progress

Students must maintain at least a 3.0 average GPA.

Student Learning Outcomes

1. Identify and define key public administration concepts
2. Apply policy analytic skills
3. Explain and assess leadership and managerial theories, skills, and competencies
4. Discuss their role and potential as public administrators
5. Identify and analyze the uniquely public features of managerial and/or policy problems

General Requirements

The degree consists of ten 3-credit courses, including three required courses (see below) and seven electives. The 30-credit program may be completed in one calendar year of full-time study or in a variety of part-time formats.

Required Courses

- PAI 895 - Mid-career Training Group 1-3 credit(s)
- PAI 897 - Fundamentals of Policy Analysis 3

credit(s)

- PAI 996 - Master's Project Paper 3 credit(s)

Elective Courses

- 3 of the 7 electives **must** be selected from Public Administration and International Affairs (PAIA) course offerings.
- 4 of the additional electives **may** be, with permission from the graduate director, from another college or school of the University that offer similar online courses.

Public Health, MPH

Cindy Paikin, Program Coordinator, paikinc@update.edu

www.upstate.edu/cnymph

Student Learning Outcomes

1. Make connections between social structure and individual experience
2. Distinguish various theoretical perspectives
3. Critically evaluate information
4. Think and write analytically
5. Can evaluate qualitative research
6. Can evaluate quantitative research
7. Be able to collect and analyze data
8. Be able to present information and write papers
9. Can explain social inequality
10. Can describe social issues
11. Can describe social policy
12. Can identify how societies operate
13. Can describe the functioning of social institutions

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.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

Sociology, MA

Student Learning Outcomes

1. Explain and Illustrate how Societies, Institutions, and Social Inequalities Operate
2. Discuss and Appraise Sociological Theory
3. Describe, Explain, and Use Research Methods

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 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.

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.

Student Learning Outcomes

1. Explain and evaluate anthropological theory generally and apply relevant theories to specific anthropological problems

2. Describe, explain, and evaluate anthropological research methods applicable for their subfield and demonstrate ability to choose and use relevant research methods in relation to the examination of specific research problems

3. Demonstrate capacity to produce publishable quality research by formulating, designing, and conducting theoretically and methodologically rigorous research

4. Explain and illustrate the connections between social structure, cultural values, and individual experience; the functioning of social institutions; and the ways social inequality and power operate

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.

Archaeology 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.

To facilitate communication and encourage progress towards completion of their doctoral degree, students should meet with their advisor and doctoral committee at least once a year following the selection of an advisor and

committee, with the meeting normally held in the spring term. The meeting will be organized by the student and advisor and may include remote participation if necessary.

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 an academic setting, government, international agencies, independent research organizations, or private businesses with a substantial research mission. The Graduate Program reflects the Department's focus on research in Labor Economics, Public Economics, International Trade, Urban Economics and Econometric Theory.

Entering graduate students should have had at least one year of calculus, a course in mathematical statistics, and a course in linear 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

Maxwell School of Citizenship and Public Affairs

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.

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 the Future Professoriate Program, a special university program that helps form good teaching practices. Syracuse University is one of a few universities that provide graduate students with a formal program to learn about college-level teaching practices.

Please note that the PhD program does begin in the Summer, typically the first week of July.

Admissions Requirements

Applications from all interested individuals are welcome. Current graduate students have varied undergraduate backgrounds, including economics, other social sciences, and mathematics. Completion of a master's degree in economics is not required to enter a Ph.D. program, and most students do not obtain an M.A. degree before entering the Ph.D. program.

A person interested in studying for the Ph.D. should complete the application form found on the admissions website (<https://www.maxwell.syr.edu/admission/>) and have three letters of recommendation sent on her or his behalf. Applications with supporting materials must be received by January 15 to ensure full consideration.

In addition, an applicant should submit her or his scores from a recent general Graduate Record Examination (GRE) and transcripts of all collegiate and post-collegiate work. An applicant whose first language is not English should submit the results of a recent TOEFL examination. Please note that the Economics Department does NOT accept IELTS in place of TOEFL. Preference for graduate assistantship is given to students with TOEFL scores of 100 (ITOTL) 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 four 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 January 15, 2018, 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

Economics applicants compete with Economics Department Ph.D. applicants for one University Fellowship. Winners receive a fellowship in their first and fourth years of study and receive graduate assistantship in their second and third years. Fellowships include a stipend (\$25,290 in 2017-18) 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 are required to take 15 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 the 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 their own classes, usually teaching in the Division of Continuing Education and Summer Sessions

Advanced graduate students may elect to compete for research assistantships. Research assistantships are available, through the Center for Policy Research, a research institute within the Maxwell School, or through faculty members who have externally sponsored research projects. It is useful for students to 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 for the academic year (\$18,650 in 2016-17) and a subsidy toward health insurance coverage for the year. Assistantships require 20 hours of service per week in teaching, grading, or research. A full graduate tuition scholarship for 24 hours of course work per year is also awarded with the assistantship. Students with assistantships take 9 hours of courses during each semester, and 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 government 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.

Student Learning Outcomes

1. Introduction and practice of fundamental knowledge of econometric methods

Degree Requirements

The Ph.D. degree in Economics at Syracuse is designed to be completed in four years, but five years to completion is common. In the normal program, after 30 credits of graduate course work in economics, students in the Ph.D. program qualify for a master's degree in economics and may apply for one in the Department office.

The Ph.D. program consists of three stages:

1. Completion of graduate course work with an average grade of B or better.
2. Satisfactory performance on both the qualifying examination and the field comprehensive examination(s).
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 course work generally consists of 2½ to 3 years (51 credits) of graduate work 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:

1. 601, 611, 612: Microeconomic Theory I, II, and III
2. 613, 614: Macroeconomic Theory I and II
3. 605, 620, 621, 622: Mathematics for Economists, Mathematical Statistics, and Econometrics I and II.

*605 and 620 are taken in the summer of the students' first year.

In addition to the core courses, each student studies two fields, in which they develop considerable expertise. The course work 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:

The breadth requirement may be satisfied by ECN 615 (History of Economic Thought), ECN 720 (Advanced Econometrics) and other courses offered in applied economics fields in The Maxwell School or courses related to Economics. Students should consult about fulfilling the breadth requirements with the Director of the Graduate Studies as well as with other economics faculty members who may serve as graduate advisors.

Dissertation Workshop 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.

Course Schedule

A typical course schedule for a student on a graduate assistantship is as follows:

Summer 2018

- ECN 605 - Mathematics for Economists 3 credit(s)
- ECN 620 - Foundations of Econometrics 3 credit(s)

Fall 2018

- ECN 601 - Survey Microeconomic Theory 3 credit(s)
- ECN 613 - Macroeconomics I 3 credit(s)
- ECN 621 - Econometrics I 3 credit(s)

Spring 2019

- ECN 611 - Microeconomics I 3 credit(s)
- ECN 614 - Macroeconomics II 3 credit(s)
- ECN 622 - Econometrics II 3 credit(s)

Summer 2019

Qualifying Examination

Fall 2019

- ECN 612 - Microeconomics II 3 credit(s)
- ECN Field I, Course 1
- ECN Field II, Course 1

Spring 2020

- ECN Field I, Course 2
- ECN Field II, Course 2
- ECN 820 - Dissertation Workshop I 3 credit(s)

Summer 2020

Field Examination

Fall 2020

- ECN 821 - Dissertation Workshop II 3 credit(s)
- ECN Breadth
- ECN Breadth

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.

Transfer Credits

A student who has taken graduate course work at another institution and wishes to matriculate in our Ph.D. program can transfer course credits to Syracuse University. A student may transfer up to 24 credits of course work 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 four applied fields. These fields are labor economics, international economics, public economics, and urban.

Special Fields

A student with a particularly strong interest may also apply to the Graduate Committee for a field in economic theory or econometrics. The course work 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 courses (in addition to ECN 620, 621, 622): consisting of two separate offerings of ECN 720, Topics in Econometrics.

Financial Economics

A student whose interests and research goals would benefit from a deeper understanding of financial economics may be permitted to take a second field in financial economics. Course work 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 601, 751, 855, and 960 (Topics in Corporate Finance). FIN 601, 756, 758, 960 (Topics on 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 Committee 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 examinations in late June, after one year of study. By that time, students will have completed courses in Microeconomic Theory (601, 611) and Econometrics (620, 621, 622). An average grade of B or better in these courses is normally required to take the qualifying examination, although the Director of Graduate Studies can make exceptions for unusual cases. Students who do not pass either qualifying examination in late June, may retake the examination late July of the same year

Field Examinations

Students must take a comprehensive examination in their primary field which will be one of the four fields. The field exam is normally given in late May after the completion of the second year of study. The second field may be fulfilled through course work 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 examination 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, which is one of the four fields offered within the department. 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. The second field is usually one of the department's four regularly offered fields. If the student receives an average grade of B+ or better in the course work for the second field, the requirements for the second field are complete. Students without a B+ average in the course work will take a comprehensive examination in the second field or follow some other approved remedial action. The rules governing Field 2 apply to students taking a field in econometrics. Separate arrangements for examination are made when a student takes a field in economic theory.

Dissertation

The dissertation involves original, independent (though guided) research, using economic theory and quantitative methods to solve research problems of interest to the student and the profession. Our program is designed so that students begin planning dissertations during their third year (or earlier) and aim to finish them by the end of their fifth year. The dissertation workshop sequence beginning in the second year introduces research topics of interest to the profession, guides the selection of a topic and an advisor, and help the candidate make a smooth transition from course work to research in the economics profession.

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

Student Learning Outcomes

1. Design and conduct original, publishable, and theoretically and methodologically rigorous research in their chosen subfield in the discipline
2. Communicate the results and significance of their research in both oral and written form through the doctoral dissertation (a major and original contribution to the field of Geography)
3. Communicate the results of research in a variety of formats both oral and written
4. Demonstrate understanding of Geography as an academic discipline, including core concepts such as space, place and scale, as well as major sub-fields such as human geography, physical geography, environmental geography and geo-spatial analysis
5. Demonstrate in-depth knowledge of their chosen field of within the discipline of

Geography, including relevant analysis, critical theory, and practical application

6. For those entering the academy: demonstrate expertise as an instructor of geography in an undergraduate setting, including design lessons, lead student discussions, and evaluate undergraduate students' written work fairly and effectively

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 point average. The Ph.D. degree requires a total of 72 credits of approved graduate work in geography and related fields. The 72 credits include up to 30 credits accepted for the master's degree, and 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.

Students must submit a dissertation proposal to their advisory committee. The proposal must be approved by the committee in a formal defense prior to taking the qualifying exams. Students must also take qualifying exams, designed to demonstrate competence in three topical fields. The exam has a written and an oral portion, designed to cover the specific subfields identified by the student in consultation with the advisor and advisory committee. The order of the proposal defense and qualifying exams (i.e., which should be done first) may be determined by the student in conjunction with her or his advisor and advisory committee.

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.

History, PhD

Student Learning Outcomes

1. Understand historiographical theory and method
2. Master requisite foreign language(s) for proposed field of study
3. Design and execute historical research (this may include theoretical models from other social sciences)
4. Identify, gain access to, and utilize historical archives and databases
5. Design, write a proposal for, and conduct research leading to production of a manuscript, worthy of presentation to a peer audience and submission for publication
6. Communicate ideas and arguments in clear, concise, well-organized papers

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. 48 credits (including the credits offered for the M.A.) of coursework are required. Students take an additional 24 hours of dissertation research credits. A 3.0 (B) average must be maintained.

Languages

The department requires knowledge of one foreign language. Individual advisors may require knowledge of one or more additional languages. Language requirements are fulfilled by passing a translation 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 minor 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

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 minor 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 must adhere to the History Department Graduate Rules and Regulations and Syracuse University's regulations.

Political Science, PhD

Student Learning Outcomes

1. Present the results of their research and/or analysis of their topic and/or sub-discipline
2. Develop and express issues and ideas in different writing forms that synthesize research and sub-discipline expertise
3. Use quantitative and/or qualitative methods to conduct research
4. Analyze interrelationships between political, economic, social, cultural, and historical forces in the field of political science and two-sub-discipline
5. Demonstrate the requisite skills needed to apply for jobs in their field
6. Demonstrate expertise as a political science instructor in undergraduate and graduate settings

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

Contacts

Associate Dean and Department Chair: Robert Bifulco, Ph.D. 215 Eggers Hall. 315-443-4000. rbifulco@syr.edu
Vice-Chair: Catherine Bertini. 215 Eggers Hall. 315-443-4000. cbertini@syr.edu
Doctoral Program Director: David Popp. 215 Eggers Hall 315-443-2482. dcpopp@syr.edu
Doctoral Records Coordinator: Karen Goebel. 215 Eggers Hall 315-443-4000. kgoebel@syr.edu

Faculty

William C. Banks, Catherine A. Bertini, Robert Bifulco, Edwin A. Bock, Stuart Brown, Leonard E. Burman, Julia Carboni, Robert Christen, Rafael Fernández de Castro, Renée deNevers, Thomas H. Dennison, Vernon L. Greene, Sarah Hamersma, Yilin Hou, W. Henry Lambright, Jesse D. Lecy, Leonard Lopoo, John G. McPeak, Katherine Micheltore, Robert Murrett, Tina Nabatchi, John L. Palmer, Rebecca Peters, David C. Popp, Michah Rothbart, Sabina Schnell, Larry Schroeder, Amy Ellen Schwartz, David Van Slyke, Peter J. Wilcoxon, Douglas A. Wolf, John M. Yinger

Description

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 central to preparing for careers as public administration and policy scholars and researchers
- Obtain a firm understanding of the broad intellectual tradition of public administration and policy analysis
- Become active researchers beginning in their first year of the program

Accreditation

The Ph.D. in Public Administration is accredited by NASPAA (the Network of Schools of Public Policy, Affairs, and Administration)

Admission

Requirements for admission include an MPA or related graduate degree.

Up to 36 credits of previous graduate study may be used to satisfy the program requirements (39 credits for Maxwell MPA students).

Financial Support

Students admitted to the Ph.D. in Public Administration, not funded by outside sources, will be awarded a graduate assistantship for one year. This assistantship includes a stipend and at 24 credit graduate tuition scholarship and is renewable for three additional years if the student remains in good standing.

Degree Awarded

PhD in Public Administration

Total Credits Required: 81

Transfer Credits

Up to 36 credits of previous graduate study may be used to satisfy the program requirements (39 credits for Maxwell MPA students).

Satisfactory Progress

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.

Ph.D. Requirements

Doctoral studies in Public Administration provide interdisciplinary study of public management and public policy analysis. PhD students complete 72 graduate course credits plus nine dissertation credits. Requirements for admission include an MPA 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 three credits in the foundations of public administration, three credits in the foundations of public policy analysis, nine credits in research methods, and 12 credits in two fields of specialization (six 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 PhD 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 Teaching Assistant 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.

Student Learning Outcomes

1. Knowledge of theories of public sector organization and management and public policy, including both historical and current developments in theoretical and empirical research.
2. Knowledge of issues in research design and measurement appropriate for designing and carrying out dissertation research.
3. Knowledge of key theories and application of statistical model specification, estimation, and testing.
4. Ability to review and synthesize research literature in public organizations and public policy as well as two substantive fields of specialization.
5. Capacity to design and carry out a research project, and to produce, present to

Maxwell School of Citizenship and Public Affairs

a peer audience, and submit for publication a manuscript based on the research.

6. Ability to complete original research in the form of a dissertation project.

Required Courses

- PAI 801 - Intellectual History of Public Administration 3 credit(s)
- PAI 803 - Quantitative Methods I: Research Methods for Public Administration 3 credit(s)
- PAI 804 - Quantitative Methods II: Research Methods for Public Administration 3 credit(s)
- PAI 805 - Foundations of Policy Analysis and Management 3 credit(s)

Social Science, PhD

Chair

Andrew London

Administrative Assistant

Tammy Salisbury

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 social 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 private, nonprofit and public sectors.

Student Learning Outcomes

1. Explain and illustrate critical analysis of social issues and phenomena, and demonstrate how these pertain to specific topics being investigated
2. Discuss and appraise theory generally and apply relevant theories to specific problems and questions

3. Describe, explain, and evaluate the strengths and weaknesses of qualitative and quantitative research methods generally

4. Demonstrate the ability to choose and use relevant research methods in relation to the examination of specific questions and problems

5. Demonstrate the capacity to produce publishable-quality research by formulating, designing, and conducting theoretically and methodologically rigorous research (projects that may be conducted in collaboration with other students and/or faculty, as well as the dissertation)

6. Establish a broad and deep specialization in at least one substantive area

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 usually 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

Student Learning Outcomes

1. Explain and illustrate how societies, institutions, and social inequalities operate
2. Discuss and appraise sociological theory
3. Describe, explain, evaluate, choose, and use research methods
4. Demonstrate capacity to produce publishable-quality research
5. Establish a broad and deep specialization in at least one substantive area

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 one advance 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, MA/ Political Science, PhD

Contact

Brian Taylor

Professor and Chair, Political Science Department

100D Eggers Hall

X3713, bdtaylor@maxwell.syr.edu

Faculty

All Faculty in PSC and in PAIA

Description

Joint-degree students receive the M.A. in International Relations and the Ph.D. (but not the M.A.) in Political Science by completing a total of 79 credit hours - 58 hours of coursework along with 21 dissertation credits. The following courses will simultaneously count toward both degree programs: PSC 651, PSC 693, PSC 783, PSC 792, PAI 762, and PAI 720 or PAI 723. All joint degree students must demonstrate competency in a second language.

All Ph.D. students are required to 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.

Maxwell School of Citizenship and Public Affairs

Questions and inquiries should be directed to Professor Seth Jolly, Director of Graduate Studies, (skjolly@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding this joint degree can contact Candy Brooks, Political Science Academic Advisor (cbrook01@maxwell.syr.edu) or Joshua Kennedy, Associate Director, Student Services, Public Administration and International Affairs (jjkenn01@maxwell.syr.edu).

Admission

GRE tests for all applicants & TOEFL test for international applicants

Financial Support

Like other Ph.D. students in political science, joint degree students will be eligible for department assistantships and SU fellowships.

Degrees Awarded

International Relations MA

Political Science PhD

Total Credits Required: 79

Transfer Credits

No more than 9 credits can be earned at another institution.

Part-Time Study

Part-time study is available.

Satisfactory Progress

Like other Ph.D. students in political science, joint degree students will be evaluated by department faculty each Spring.

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 Alan Allport, Associate Professor of History and Director of Graduate Studies, Department of History, 145 Eggers Hall, 443-4144, aallport@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 444 College of Law, 443-1146, cabboth@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.

Students must apply and be admitted to both programs separately and will complete the entire first year in the College of Law prior to their admission to the Master of Arts in International Relations.

In three years, students complete the core requirements for both the Juris Doctor and MAster of Arts in International Relations degree, beginning their dual studies between their 1L and 2L years. In addition to the core, students complete specialized coursework in one of the following five international relations career tracks; 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, the Caribbean, and the Middle East.

Students also complete an applied internship opportunities linking academic studies in law and international relations with the professional practice of international relations.

Questions and inquiries may be addressed to Christine Omlino, Director, Admissions and Financial Aid, Department of Public Administration and International Affairs, 215 Eggers Hall, Maxwell School of Citizenship and Public Affairs (443-4000; comolino@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/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 Seth Jolly, Director of Graduate Studies, (skjolly@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill; Associate Director for Academic and Bar Support, Suite 220 College of Law (443-1146, cabboth@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 Seth Jolly, Director of Graduate Studies, (skjolly@maxwell.syr.edu). Students with general questions and inquiries concerning procedures regarding joint degrees should contact Courtney Abbott Hill; Associate Director for Academic and Bar Support, Suite 220 College of Law (443-1146, cabboth@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 prepare for a career at 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

Maxwell School of Citizenship and Public Affairs

Director for Student Life, Suite 220 College of Law (315-443-1146, cabbott@law.syr.edu).

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 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 can 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. Graduation 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:

During their studies, students must complete a three-credit internship, as well as six credits towards a distinct international relations career track, as well as one of the following five International Relations signature courses.

- PAI 707 - Culture in World Affairs 3 credit(s)
- 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)

Required International Relations internship 3 credits

Career Track Course 6 credits

Total: 58 credits

Certificate of Advanced Study

Civil Society Organizations, CAS

Contact:

Tosca Bruno-van Vijfeijken, tmburno@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.

This certificate is based on 15 hours of coursework that includes a foundational course, discipline-specific coursework, an internship/fieldwork requirement, and a proseminar.

Student Learning Outcomes

For information on student learning outcomes, please contact the department.

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/PSC 713 - Congress and the Presidency*) 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.

*Please note that this list of foundational courses may change from year to year depending on whether they are offered during a particular academic year

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. 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.

Conflict Resolution, CAS

Student Learning Outcomes

1. Explain and illustrate how social conflicts develop
2. Discuss and appraise multi-disciplinary conflict theories
3. Demonstrate capacity to analyze conflicts and propose transformational strategies
4. Evaluate approaches to conflict management
5. Apply conflict theory to practice

Certificate Requirements

The 12-credit, graduate-level Certificate of Advanced Study (CAS) in Conflict Resolution 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 or determined with the guidance of a faculty advisor. 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 can earn the Certificate concurrently with their master's or doctoral degree. Mid-career managers may complete the CAS as an independent graduate program.

Questions about the certificate program and how to apply please contact the PARCC Office by phone at 315.443.2367 or by email to: parcc@maxwell.syr.edu

E-Government Management and Leadership, CAS

Contact:

Margaret Lane, Asst. Director of Executive Education, 315-443-8708

Susan Corieri, Assistant Dean for Enrollment Management and Special Academic Program Initiatives, 315-443-2575

<http://www.maxwell.syr.edu/exed/Certificates/SA-EGov/Overview/>

<http://ischool.syr.edu/future/cas/egov.aspx>

Student Learning Outcomes

1. Describe and analyze policy and regulatory issues related to eGovernment ICT service delivery in government agencies
2. Identify and explain planning, investment, development, and oversight processes for government ICT services
3. Identify and match government mission requirements with viable ICT architectures and service solutions
4. Describe how the public sector utilizes IT to accomplish government functions
5. Explain leadership theories and apply them to their own experiences
6. Develop and assess managerial skills and competencies

Certificate Requirement

The E-Government Management and Leadership Certificate of Advanced 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)

Curriculum

This certificate requires 12 graduate credits. All courses are 3 graduate credits unless specified otherwise.

Required Courses (6 credits)

- IST 711 - e-Government 3 credit(s)
- PAI 895 - Mid-career Training Group 1-3 credit(s)

Elective Courses (6 credits)

Students should consult with their respective Faculty Advisors to select two additional courses offered in either the iSchool or Maxwell School based on their prior education and experience as well as professional needs.

A formal Petition is required for students who want to count a course towards the CAS that is not listed in the curriculum. Please email iAdvising@syr.edu to learn more about the Petition process.

- IST 618 - Information Policy 3 credit(s)
- IST 623 - Introduction to Information Security 3 credit(s)
- IST 625 - Enterprise Risk Management 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 649 - Human Interaction with Computers 3 credit(s)
- IST 659 - Data Administration Concepts and Database Management 3 credit(s)
- IST 726 - Enterprise Architecture: Concepts and Practice 3 credit(s)
- IST 728 - Information Security Policy 3 credit(s)
- IST 769 - Advanced Database Administration Concepts and Database Management 3 credit(s)
- PAI 730 - Problems in Public Administration 1-3 credit(s)
- PAI 730 Information Strategy and Management in the Public Sector
- PAI 730 Information Management in the Public Sector
- PAI 730 Information Management in the Public Sector II Government 2.0
- PAI 730 Networked Governance

Maxwell School of Citizenship and Public Affairs

- PAI 730 Forecasting for Policy Analysis and Public Management
- PAI 734 - Public Budgeting 3 credit(s)
- PAI 742 - Public Administration and Law 3 credit(s)
- PAI 755 - Public Administration and Democracy 3 credit(s)
- PAI 772 - Science, Technology, and Public Policy 3 credit(s)
- PAI 789 - Advanced Policy Analysis 3 credit(s)

Econometrics, CAS

Contact:

Jan Ondrich jondrich@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

Margarita Estevez-Abe, Co-Director, Center for European Studies

Office: 308 Maxwell Hall

Telephone: 315-443-3859

E-mail: mestev02@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, culture, and economics or to prepare themselves for a career involving specialization in this region. In completing the certificate program, students are required to take 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, language study, 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/

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.

Student Learning Outcomes

For information on student learning outcomes, please contact the department.

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 1-3 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
thdennis@maxwell.syr.edu

Student Learning Outcomes

1. Explain the structure, function, and financing of the United States healthcare system
2. Apply core governance and management skills to a healthcare setting

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

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

Gladys McCormick, Director

Program on Latin America and the Caribbean

510 Eggers Hall

315-443-9325

Certificate Requirements:

This certificate indicates successful completion of 12 credits of graduate study 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 certificate program.

In order to receive the certificate, students must complete 12-credit hours of coursework and earn a cumulative grade point average of at least 3.0 in these courses as well as successfully complete the degree program in their primary field.

The Program of Study must be completed and signed by your advisor and the director of PLACA.

Student Learning Outcomes

For information on student learning outcomes, please contact the department.

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 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
(315) 443-3759
sjlux@maxwell.syr.edu

Student Learning Outcomes

1. Explain leadership theories and apply them to their own experiences
2. Develop and assess managerial skills and competencies
3. Discuss their role and potential as public administrators
4. Analyze the context(s) within which INGOs operate and the complex interconnectedness of INGO relationships
5. Define organizational effectiveness and identify methods of demonstrating effectiveness to stakeholders

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

managerial skills and competencies

policy context and analysis.

There is one required public administration course, PAI 895- Executive Education Seminar Managerial Leadership. 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

Maxwell School of Citizenship and Public Affairs

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

Lamis Abdelaaty, Ahmed E. Abdel-Meguid, Carol Babiracki, Hossein Bashiriyeh, Mehrzad Boroujerdi, Zachary J. Braiterman, Miriam Fendius Elman, Carol Fadda-Conrey, Ken Frieden, Rania Habib, Timur Hammond, 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, Nazanin Shahrokni, 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 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.

Student Learning Outcomes

1. Analyze main social, political and religious properties, and modern history of the Middle East or the evolution of political thought and the ways in which social theories can be applied to the study of the region
2. Demonstrate fair knowledge of one of the four main languages in the region
3. Examine the Middle East region's cultural diversity
4. Use a variety of methodological and theoretical approaches from the humanities, social sciences, and/or related professions in the study of the Middle Eastern region

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), 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 Young Scholar 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, 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 INSCT at 315.443.2284.

<http://insct.syr.edu/our-work/academicprograms/pcr-certificate/>

The Certificate of Advanced Study in Postconflict Reconstruction (PCR) is a 12-credit, multidisciplinary program for law and graduate students preparing for careers in PCR, peace building, humanitarian relief, and international development.

The certificate provides students a documented concentration and familiarization with the various dimensions and goals of postconflict work, the types of actors who conduct it, the trade-offs and dilemmas they face, and the lessons learned from its application across various settings. Students learn the tools required for success in public service careers in reconstruction, human security, and development, including:

- Analytical techniques tailored for work in international development communities.
- A better understanding of how the US and the international community can effectively participate to rebuild shattered societies.
- New ways of thinking about the nature of conflict, cooperation, and security.

Specific topics of study include international law and the rule of law, human rights and human security, peace and conflict studies, diplomacy and international relations, humanitarian relief, economics of development, and capacity-building. This sequence of specialized coursework is coordinated across the Maxwell School, College of Law, Whitman School, and Newhouse School. All students take a core course-Fundamentals of Postconflict Reconstruction-and complete a Capstone Project/Internship related to PCR.

Certificate Requirements

1) Required Core Course (Mandatory/three credits):

- PAI 719 - Fundamentals of Post-Conflict Reconstruction 3 credit(s)

2) Secondary Core Course (Choose one/three credits):

- Civil Wars & State-Building (PAI 730)
- Economics of Development (ECN 651/PAI 757)
- Rule of Law in Postconflict Reconstruction (LAW 813)
- Fundamentals of Conflict Studies (PAI 601 / SOC601)
- Humanitarian Action: Challenges, Responses, Results (PAI 765)
- Multilateral Peacekeeping (ANT/PAI 701)

4) 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 1-3 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 melane02@syr.edu, 315-443-8708

Student Learning Outcomes

1. Identify and define key public administration concepts
2. Develop and assess managerial skills and competencies
3. Explain leadership theories and apply them to their own experiences
4. Develop problem analytic skills
5. Discuss their role and potential as public administrators

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 - Executive Education Seminar: 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:

Cindy Paikin, Program Coordinator, paikinc@update.edu

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)

Maxwell School of Citizenship and Public Affairs

Public Infrastructure Management and Leadership, CAS

Contact:

Margaret Lane Assistant Director, Executive Education

219 Maxwell Hall 315-443-8708 melane02@maxwell.syr.edu

Dr. Ossama "Sam" Salem

Department Chair of Civil and Environmental Engineering Yabroudi Chair Professor of Sustainable Civil Infrastructures 151 Link Hall, 315-443-2311 omsalem@syr.edu

Program Description

The College of Engineering and Computer Science (ECS), in collaboration with the Department of Public Administration and International Affairs (PA IA) 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 Study in Public Infrastructure Management and Leadership (CAS-PIML). This certificate program is geared towards mid-career professionals who 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.

Student Learning Outcomes

1. Explain and assess leadership and managerial theories, skills, and competencies
2. Demonstrate the ability to prepare and analyze flexible budgets
3. Develop skills in infrastructure planning

4. Become responsible, thoughtful, and qualified leaders in the area of infrastructure asset management

5. Select and evaluate performance measures for public infrastructure

6. Identify principal engineering design considerations for major infrastructure projects

7. Assess the major environmental and social impacts of infrastructure projects

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 PAIA 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) Executive Education Seminar: Managerial Leadership
- PAI 734 - Public Budgeting 3 credit(s) or
- 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 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 certificate of advanced study is open to concurrent graduate students in engineering, science and other technical areas interested in working for or closely with public and non-profit organizations. 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

Students choose their remaining six credits (two courses) from a 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 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.

Maxwell School of Citizenship and Public Affairs

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.

Student Learning Outcomes

1. Leaders support, develop, and nurture all those served by a school system. School district business leaders must demonstrate the knowledge and skills to create and sustain financial and operational conditions that enable all students to meet state learning standards and all staff to serve effectively in achieving that objective. They must demonstrate the ability to identify, develop, and endorse organizational and administrative policies and procedures that support their district's mission, goals, and objectives.

2. Leaders have a vision for schools that they constantly share and promote; they persevere and take the long view. School district business leaders must demonstrate the knowledge and skills to assist in implementing, monitoring, and evaluating a district strategic plan; monitor and assess programs that support instruction; and assist with the allocation of resources for instructional programs.

3. Leaders hold themselves and others responsible and accountable; they have the courage and judgment to take informed risks. School district business leaders must demonstrate the knowledge and skills to effectively and ethically manage the financial resources and operational functions of a school district, and administer its employment agreements, in accordance with state and federal laws and regulations.

4. Leaders communicate clearly and effectively; they collaborate and cooperate with others. School district business leaders must demonstrate the knowledge and skills to oversee the design and administration of management information systems, implement mass and interactive communication strategies, and effectively present financial data and administrative issues to various audiences, framing choices that help lay audiences understand and make decisions, and framing questions that assure that those with specialized expertise make appropriate recommendations.

5. Leaders promote the success of all students and their districts' interests by understanding,

responding to, and influencing the political, economic, legal, regulatory, and cultural contexts that affect public education. School district business leaders must demonstrate the knowledge and skills to keep their superintendents and boards of education apprised of external developments that bear on a district's non-instructional functions and that affect their ability to maintain and support its instructional programs, and they assist the district's leaders or directly represent and advocate for their district in relationships with outside experts and regulatory and legal authorities on all such non-instructional issues.

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.

- 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 734 - Public Budgeting 3 credit(s)
- PAI 735 - State and Local Government Finance 3 credit(s) (MPA)

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 INSCT at 315.443.2284.

<http://insct.syr.edu/our-work/academicprograms/>

The CAS in Security Studies is a 12-credit, interdisciplinary program for law and graduate students preparing for careers in national security, homeland security, cybersecurity, and counterterrorism.

Certificate students collaborate across range of subjects, benefitting from faculty expertise in national and homeland security; international and atrocity law; military operations and defense strategy; counterterrorism law and policy; counter-proliferation policy; diplomacy and international relations; mass communication; cybersecurity law, policy, and engineering; conflict and postconflict studies; and more.

Alumni form an extended, active, and influential network, boosting INSCT's reputation as a "go to" organization for shaping discourse on security challenges. Students also can join the INSCT-supported Student Association on Terrorism and Security Analysis.

Candidates for the CAS take six credits (two courses) chosen from the required courses list and six credits (two courses) from a wide choice of elective courses.

Certificate Requirements

- Required Course (choose two courses/six credits):
- Central Challenges in National Security Law and Policy (PAI 730 /LAW 883)
- Comparative Civil-Military Relations (PSC 785)
- International Security (PAI 717)
- National Security and Counterterrorism Research Center LAW 882)
- National Security Law (LAW 700)
- US Defense Strategy (PAI 739)
- US Intelligence Community: Governance and Practice (PAI 738)

US National Security Policy (PAI 718 /PSC 718)

Elective Courses (Choose two courses/six credits)

South Asian Studies, CAS

Faculty

Carol Babiracki, Shobha K. Bhatia, Tej K. Bhatia, Himika Bhattacharya, Tula Goenka, Ann G. Gold, Tazim R. Kassam, Radha Kumar, Prema Kurien, Chandra Talpade Mohanty, Romita Ray Kapoor, Anoop Sadanandan, Farhana Sultana, Susan Thomas, Cecilia Van Hollen, Susan S. Wadley, Joanne P. Waghorne

Affiliated Faculty

Ahmed Abdel Meguid, Mehrzad Boroujerdi, Richard Breyer, Thomas Brutsaert, Gareth Fisher, Rashmi Gangamma, Dimitar Gueorguiev, Roger Hallas, Devashish Mitra, S.P. Raj, Sudha Raj, Lars Rodseth, Kamala Ramadoss, Jaipaul Roopnarine,

Yuksel Sezgin, Corri Zoli

Student Learning Outcomes

1. To analyze aspects of the history and geography of South Asia
2. To contrast and critique various social, economic, and political dimensions of South Asia including but not limited to: gender, caste, class, education, ethnicity, national identity, and religion
3. To interpret the diverse functions and cultural meanings of religion, art, and music in South Asia
4. To analyze key processes of change and globalization within and between South Asian nations

5. To develop ideas and arguments about South Asia in writing

Certificate Requirements

The Certificate of Advanced Study (CAS) in South Asian Studies 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)
- SAS 622 - Gender & Sexuality in South Asia 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 622 - Gender & Sexuality in South Asia 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 1-3 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.

Maxwell School of Citizenship and Public Affairs Courses

Anthropology

ANT 500 - 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 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.

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 623 - Effects of Globalization in Latin America

Maxwell School of Citizenship and Public Affairs
3 credit(s) Odd academic yr e.g. 2007-8
Crosslisted with: LAS 623
Double Numbered with: ANT 423
A grassroots view of major transformations in Latin America due to globalization/global change, including adaptations to global warming, effects of and reactions to neo-liberal policies, internal and international migration, ethnic movements and social revolutions.

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.

Maxwell School of Citizenship and Public Affairs

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 638 - Beyond the Biological Need to Eat: The Archaeology of Food

Maxwell School of Citizenship and Public Affairs
3 credit(s)
Double Numbered with: ANT 438
What does it mean for something to be good to eat? Survey of anthropological and archaeological perspectives on how culture, politics, and power inform what and how we eat. Additional work required of graduate students.

ANT 639 - Climate Change and Human Origins

Maxwell School of Citizenship and Public Affairs
3 credit(s)
Crosslisted with: EAR 607
Double Numbered with: ANT 439
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. 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
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.

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

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.

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 505 - Mathematical Economics

Maxwell School of Citizenship and Public Affairs
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 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
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

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 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 778 - Development Finance: Building Inclusive Financial Systems

Maxwell School of Citizenship and Public Affairs

Maxwell School of Citizenship and Public Affairs
3 credit(s) At least 1x fall or spring
Crosslisted with: PAI 778
Focus on how to build the policy and institutional infrastructure for delivering financial services that serve the poor.

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 500 - Topics in Geography

Maxwell School of Citizenship and Public Affairs
1-6 credit(s) At least 1x fall or spring
In-depth studies of selected topics.
Repeatable

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 605 - Writing Geography

Maxwell School of Citizenship and Public Affairs
3 credit(s) Even Academic Yr e.g. 2004-5
Workshop on academic writing for geographers. Students exposed to the techniques of scholarly writing and practices of creative nonfiction.

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 622 - Water: Environment, Society and Politics

Maxwell School of Citizenship and Public Affairs
3 credit(s) At least 1x fall or spring
Double Numbered with: GEO 422
Critical geographical analyses of inter-connected and cross-scalar role of water in environment, society, politics and economy globally. Investigates various water-society relationships, water governance, policies, crises, struggles, controversies, conflicts, and water justice, in theory and practice. Additional work required of graduate students.

GEO 626 - Environmental Change in the Anthropocene

Maxwell School of Citizenship and Public Affairs
3 credit(s) Odd academic yr e.g. 2007-8
Double Numbered with: GEO 426
Investigation of the roots of the Anthropocene as a concept and a geologic epoch; examination of human drivers of and interactions with global environmental change. Additional work required of graduate students.
PREREQ: GEO 103 OR GEO 155 OR GEO 215

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.

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 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 geo-referenced 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.

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)

Maxwell School of Citizenship and Public Affairs

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 500 - 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 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 620 - The East Asian Century? Opportunities and Challenges for the Region & the US

Maxwell School of Citizenship and Public Affairs
3 credit(s) At least 1x fall or spring
Crosslisted with: PSC 620
Double Numbered with: HST 420
Examines the trajectories of and interactions between China, Japan, and Korea, with a focus on the implications of these developments for the region and the United States.

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
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

Maxwell School of Citizenship and Public Affairs

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.

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

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 Policy

Maxwell School of Citizenship and Public Affairs
3 credit(s) At least 1x fall or spring
Introduces essential elements of health policy and explores ways that health policy shapes the healthcare environment and impacts population health through case studies and multi-level discussions.

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.

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 649 - Public Health and Biopsychosocial Primary Care

Maxwell School of Citizenship and Public Affairs
3 credit(s) Every semester
Students will be exposed to instruction on social determinants of health, cultural competency, motivational interviewing, and other topics. Course also includes shadowing experiences in clinical sites serving disadvantaged populations.

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 664 - Bioethics

Maxwell School of Citizenship and Public Affairs
3 credit(s) At least 1x fall or spring
Crosslisted with: PHI 594, 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.

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 697 - Independent Study in Public Health

Maxwell School of Citizenship and Public Affairs
1-3 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, 3 credits maximum

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 500 - 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 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

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) Every semester
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
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 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

Maxwell School of Citizenship and Public Affairs

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
1-3 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

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

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
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 732 - Collaborative and Participatory Governance

Maxwell School of Citizenship and Public Affairs
3 credit(s) At least 1x fall or spring
Provides foundation in collaborative and participatory governance to equip students to produce and consume related processes, tools, and approaches.

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.

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

Maxwell School of Citizenship and Public Affairs

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 750 - Managing Interpersonal, Group and Systemic Conflict

Maxwell School of Citizenship and Public Affairs

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

Introduces concepts, skills, and processes used by collaborative managers to achieve results. Students learn skills and processes needed to manage conflict or lead collaboration at the individual, group, and organizational and system levels.

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 - Leadership and Public Policy

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.

PAI 757 - Economics of Development

Maxwell School of Citizenship and Public Affairs

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, 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 - Law, Courts and Human Rights

Maxwell School of Citizenship and Public Affairs
3 credit(s) Irregularly
This course aims to introduce students to comparative judicial politics and human rights, and familiarize them with relevant theories and methodologies for conducting research on comparative legal systems, human rights and judicial institutions.

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 770 - Climate Change: Science, Perception, and Law

Maxwell School of Citizenship and Public Affairs
3 credit(s)
An interdisciplinary exploration of the challenges posed by climate disruption and how to face this most pressing of issues.

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

Maxwell School of Citizenship and Public Affairs

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

Crosslisted with: ECN 778

Focus on how to build the policy and institutional 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 790 - Public Finance: An International Perspective

Maxwell School of Citizenship and Public Affairs

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

Course covers international public finance, surveying the area as well as general economic principles and administrative practices in international public finance.

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 805 - Foundations of Policy Analysis and Management

Maxwell School of Citizenship and Public Affairs

Maxwell School of Citizenship and Public Affairs

3 credit(s) Every semester

Course exposes students to foundations of public policy analysis and management with three distinct focuses: consumer theory, critiques of rational decision making, and policy processes. Source material derived from microeconomics, political science, and public administration.

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

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 500 - 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 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 620 - The East Asian Century? Opportunities and Challenges for the Region & the US

Maxwell School of Citizenship and Public Affairs

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

Crosslisted with: HST 620

Double Numbered with: PSC 420

Examines the trajectories of and interactions between China, Japan, and Korea, with a focus on the implications of these developments for the region and the United States.

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 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

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.

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 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 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

Maxwell School of Citizenship and Public Affairs

Explores key controversies and debates in contemporary security studies.

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 768 - Law, Courts and Human Rights

Maxwell School of Citizenship and Public Affairs
3 credit(s) Irregularly
This course aims to introduce students to comparative judicial politics and human rights, and familiarize them with relevant theories and methodologies for conducting research on comparative legal systems, human rights and judicial institutions.

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 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.

Maxwell School of Citizenship and Public Affairs

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.
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 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 804 - Advanced Topics in Qualitative Methods

Maxwell School of Citizenship and Public Affairs
3 credit(s) Irregularly
Advanced survey of selected qualitative research methods, for students who have completed PSC 694. Specific topics covered will vary by semester.

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. 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 670 - Experience Credit

Maxwell School of Citizenship and Public Affairs
1-6 credit(s)
Repeatable

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 500 - Selected Topics

Maxwell School of Citizenship and Public Affairs
1-6 credit(s) Upon sufficient interest
In-depth selected study of certain social problems.
Repeatable

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,

Maxwell School of Citizenship and Public Affairs

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.

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 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) Upon sufficient interest
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 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 575 - Philosophy of Social Science

Maxwell School of Citizenship and Public Affairs
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.

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.

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

Maxwell School of Citizenship and Public Affairs

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

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.370cfm

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, MS

Communications Management, MS

Computational Journalism, MS

Documentary Film and History, MA

Magazine, Newspaper, and Online Journalism, MA

Media & Education, MA

Media Studies, MA

New Media Management, MS

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 Newhouse School's mission is to educate ethical, visionary communicators whose goal is to establish an open marketplace of ideas guided by the First Amendment using contemporary professional practices. In the course of earning their degree, students are expected to achieve the following educational outcomes:

1. Identify the principles and laws of free speech and press for the U. S., as well as compare the American system of freedom of expression with others around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances.

2. Describe how professionalization has historically shaped the institutions in communications.

3. Explain mass communication in relation to social identities such as gender, race, ethnicity, sexual orientation, and, as appropriate, other forms of diversity in American society

4. Recognize how the diversity of peoples and cultures has shaped mass communications in a

global society

5. Apply theories and concepts of design and visual communication to the use and presentation of images and information.

6. Recognize professional ethical principles and apply them in pursuit of truth, accuracy, fairness and diversity.

7. Critically, creatively, and independently consider problems and issues relevant to the communications professions.

8. Conduct research and evaluate information by methods appropriate to the communications professions.

9. Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve.

10. Critically evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness.

11. Apply basic numerical and statistical concepts.

12. Apply tools and technologies appropriate for the communications professions in which they work.

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.

S.I. Newhouse School of Public Communications

In addition to the professional Master's degree 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, 315-443-4039 (voice). Inquiries for the research-based Media Studies program should be addressed to masscomm@syr.edu, 315-443-3372, and inquiries about executive education should be directed to 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, 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 Media Group).

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 \$17.20 per hour and also receive tuition scholarships (usually 7.5 credits per semester). Some positions are just for one 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.

Online Education

Master of Science in Communications

The online masters in communications program prepares media professionals to succeed in today's world of mass media and digital communications. With classes created and taught by Newhouse faculty, the master's in communications offers students around the world the opportunity to receive the highest quality education without relocating. Students can start their degree in January, April, July or October. The program is intended for students with bachelor's degrees and/or backgrounds

S.I. Newhouse School of Public Communications

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.

There are two required immersions which take place Friday through Sunday in various locations. (Past immersions have been in Syracuse, New York City, and Los Angeles.) During the immersion, students come together to learn from professionals in the field, interact with their classmates and faculty, network with Newhouse alumni and work together on a case study on a specific topic. This program is designed to be completed in as little as 15 months.

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, Anthony D'Angelo, at dangelo@sy.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, video editing, digital sound editing, 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 manages the School's digital video cameras (HD and DSLR formats), lights, microphones, and other production accessories. Post-production facilities include video 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 technologies including drones, a 30-foot interactive wall, Google watches and glasses, 360° cameras, and technology which supports the creation of virtual reality programming. The University's Orange Television Network <http://orangetv.sy.edu/> is also headquartered in Newhouse 2.

Newhouse 3 houses a 300-seat auditorium; a collaborative media suite in which students can build interactive 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. Since 1997, the center has been overseeing the acquisition and editing of an ongoing series of books published by Syracuse University Press about television and other popular culture subjects, and maintaining a large archive of original interviews with pioneers of American television, as well as a collection of television scripts and production materials. The center provides expertise to a wide variety of TV, radio, and print reporters. On-campus activities include symposiums, guest lecturers, and weekly screenings, all of which are open to the public. For further information contact Robert Thompson, director, 315-443-4077, <http://tvcenter.sy.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, and events with the start-up community in NYC), 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@sy.edu or visit <http://www.newhousestartups.com/>

Newhouse Sports Media Center

The Newhouse Sports Media Center builds upon the Newhouse School's long history and strengths in sports communications. The Center provides courses across the spectrum of media - courses such as, sports writing across platforms, sports reporting, sports production, play-by-play announcing, interviewing, as well as internship experiences to students in a variety of fields. The Center fosters student and alumni interaction and academic-industry partnerships through an alumni board. The Newhouse Sports Media Center sponsors special events and frequent guest lectures on current sports issues. Television, Radio and Film professor of practice, Olivia Stomsky is the Center director. For further information, visit: <http://newhousesports.sy.edu/>

Tully Center for Free Speech

The S.I. Newhouse School is the home of the Tully Center for Free Speech, which educates students and the public about the value of free speech. The Center sponsors educational programs and conducts research related to media law and free speech, serves as a clearinghouse on media law issues in New York State, and supports interdisciplinary work on free speech topics at Syracuse University. For further information contact Roy Gutterman, Director at 315-443-3523, <http://tully.syr.edu/>

The W2O-Newhouse Center for Social Commerce

The W2O Newhouse Center for Social Commerce was made possible in 2012 through the generosity of Syracuse University alums, Jim and Audra Weiss '87. Jim is founder and CEO of the W2O Group, a network of complementary, multi-faceted marketing, communications, and digital firms, headquartered in San Francisco with eleven offices worldwide. The Center's mission is to ensure SU students graduate with the cutting edge skills needed to address the convergence of communications with "big data," business analytics, digital technology and social media in the emerging area of "social commerce." Toward this end, the Center brings together marketing, communications, and digital experts from the industry with faculty and students; complements current course offerings with hands-on workshops and case studies; involves students in applied research projects for clients; and hosts internships at W2O and client offices across the United States. For more information, contact Maria Russell, campus director, Newhouse Executive Education Programs at 315-443-4066 or mprussel@syr.edu.

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, visit <http://trac.syr.edu/> or email trac@syr.edu

Library Resources and Services

Syracuse University Libraries support 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 at <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*, *MRI*, *University Reporter*, *Media Intelligence Center*, *PressReader*, *ProQuest Historical Newspapers*, *SCOLA*, *AP Images*, *Vanderbilt University's Television News Archive*, *JSTOR*, *Communication Source*, *World Advertising Research Center*, *Mintel Reports*, *eMarketer*, *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 streaming 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, tutoring and digital scholarship services, Pages cafe and events spaces for student, librarian or faculty use, and the Blackstone Launchpad, multidisciplinary center for entrepreneurship.

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, which 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 William Safire, 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, Rebecca Ortiz,

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.

Student Learning Outcomes

1. Identify the principles and laws associated with free speech and press for the US, as well as Advertising regulations including appropriation, false advertising, deception, competitive advertising, copyright, trademark, etc.
2. Describe how professionalization has historically shaped different areas of advertising industry including account management, creatives, account planning, etc. Use knowledge of the history of the advertising industry to adapt to current communications work environment
3. Explain diversity such as gender, race ethnicity, sexual orientation and, as appropriate, other forms of diversity in American society
4. Recognize how the diversity of peoples and cultures has shaped advertising in a global society
5. Apply theories and concepts of design and visual communication to the use and presentation of advertising campaigns
6. Recognize Advertising professional ethical principles and apply them in pursuit of truth, accuracy, fairness and diversity in the Advertising context
7. Critically, creatively, and/or independently consider problems and issues relevant to the advertising profession
8. Conduct research and/or evaluate information by methods appropriate to the communications professions
9. Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve
10. Evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness
11. Apply basic numerical and statistical concepts
12. Apply tools and technologies appropriate for the communications professions in which they work
13. Contribute to knowledge appropriate to the communications professions in which they work
14. Exhibit the ability to present advertising ideas, plans, research, strategies and executions in settings appropriate to their career paths
15. Demonstrate the ability to work in teams

S.I. Newhouse School of Public Communications

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 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
- Communication and Media Planning
- Cross-Cultural Advertising
- Fashion Promotion
- Health Promotion
- Sports Promotion
- Music Promotion
- Non-Profit Promotion

Total: 36 Credits

Arts Journalism, MA

Contact:

Eric Grode, Director, ejgrode@syr.edu
Janet Anthony, Assistant Director, jcanthon@syr.edu
333 Newhouse 2, 315-443-9251

Faculty

Amber Bartosh, Theo Cateforis, Eric Grode, Johanna Keller, Sascha Scott, Jim Shahim, Robert J. Thompson, James Gordon Williams

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.

Student Learning Outcomes

In addition to the learning outcomes listed in the Newhouse School mission statement, students in the Arts Journalism Master's program are expected to achieve the following educational goal:

1. Analyze and interpret cultural products such as theater performances, operas, jazz and classical music performances and art exhibits.
2. Apply journalistic storytelling to specialized reporting on arts and culture.

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, and creating multiplatform arts coverage, 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 (27 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)
- AJP 636 - Cultural Media Practicum 3 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 (9 Credits)

Additional graduate courses in areas such as architecture, film, fine arts, music, or theater, as well as journalism, communications, and writing courses.

Total: 36 credits

Audio Arts, MA

Contact:

James Abbott, Co-Director
315-443-4107, jsabbott@syr.edu

Douglas Quin, Co-Director
315-443-7398, dquin@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.

Student Learning Outcomes

1. Law: Identify the principles and laws associated with free speech and press for the US, as well as compare the American system of freedom of expression with others around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances
2. Professional History: Describe how professionalization has historically shaped the institutions in communications. Use knowledge of the history of the media industry to adapt to current communications work environment
3. U.S. Diversity: Explain mass communications in relation to social identities such as gender, race ethnicity, sexual orientation and, as appropriate, other forms of diversity in American society
4. Global Diversity: Recognize how the diversity of peoples and cultures has shaped mass communications in a global society
5. Visual Communication: Apply theories and concepts of design and visual communication to the use and presentation of images and information
6. Ethics: Recognize professional ethical principles and apply them in pursuit of truth, accuracy, fairness and diversity
7. Critical Thinking: Critically, creatively and/or independently consider problems and issues relevant to the communications professions
8. Research: Conduct research and/or evaluate information by methods appropriate to the communications professions
9. Writing: Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve
10. Critical Evaluation: Evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness
11. Use of Numbers: Apply basic numerical and statistical concepts
12. Technology: Apply tools and technologies

appropriate for the communications professions in which they work

13. Contribute Knowledge: Analyze and interpret cultural products such as theater performances, operas, jazz and classical music performances and art exhibits

14. Cultural Knowledge: Apply journalistic storytelling to specialized reporting on arts and culture

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

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, Simon Perez, Les Rose, 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.

S.I. Newhouse School of Public Communications

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.

Student Learning Outcomes in Broadcast and Digital Journalism

In addition to the learning outcomes listed in the Newhouse School mission statement, students in the Broadcast and Digital Journalism Master's program are expected to achieve the following educational goal:

1. Contribute to knowledge appropriate to the communications professions in which they work.
2. Analyze data in order to draw conclusions about effectiveness of journalistic practices and audience interaction with journalistic content.
3. Effectively communicate ideas and information vocally and apply professional live reporting techniques.

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:

Anthony D'Angelo, Academic Director
315-443-3368

Fax: 315-443-3946
commgt@syr.edu

http://newhouse.syr.edu/Academics/Communications_Management/overview.cfm

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:

Carolyn Hedges
Director
(315) 443-2366
cjdavi02@syr.edu

Kelly Lux

Assistant Director

(315) 443-2366

kalux@syr.edu

Faculty:

Amy Falkner; Rochelle Ford; Barbara Fought; William Jasso; Dennis Kinsey; Stephen Masiclat; Kevin O'Neill; Dan Pacheco; Adam Peruta; 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.

Student Learning Outcomes in Communications

Students in the Communications Master's program are expected to achieve the following educational goals:

Identify the principles and laws associated with free speech and press for the US, as well as compare the American system of freedom of expression with others around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances.

Apply theories and concepts of design and visual communication to the use and presentation of images and information.

Conduct research and/or evaluate information by methods appropriate to the communications professions.

Apply tools and technologies appropriate for the communications professions in which they work.

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)

S.I. Newhouse School of Public Communications

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) or

PRL 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 Masielat, masielat@syr.edu
Professor, Co-Director, 255 Newhouse 3
315-443-9243

Jae C. Oh, jco@syr.edu
Professor, Co-Director, 4-177 Sci & Tech

Faculty

Aileen Gallagher, Roy Gutterman, Stephen M. Masielat, Nancy McCracken, 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.

Student Learning Outcomes in Computational Journalism

Students in the Computational Journalism Master's program are expected to achieve the following educational goals:

1. Demonstrate strong writing ability
2. Demonstrate the ability to construct and tell a story effectively in spoken words, images, text and through multimedia
3. Understand and make use of information technology, and grasp its import for society
4. Understand effective visual language and how to apply it to create visual messages and enhance communications
5. Understand the events and issues of the day in public communications and society in an environment both encouraged and deepened by the liberal arts experience
6. Think analytically, gain numerical proficiency and learn to develop well-researched positions on issues
7. Demonstrate knowledge of the historical traditions in public communications, and of industry practices and products
8. Demonstrate knowledge of ethical practice in the communications field, along with an understanding of the responsibilities communications practitioners have for the public welfare
9. Demonstrate an understanding of the First Amendment freedoms of speech and press along with a commitment to using these freedoms in the service of democracy

10. Develop the knowledge to compare and contrast media systems around the world

11. Learn to value, embrace and support diversity in society and the media

12. Learn to access, evaluate, synthesize and make use of information to create media products

13. Become media literate and a critical consumer of media content

14. Develop the ability to analyze the validity and structure of many types of data, identify any essential public interests captured therein, and, frame the relevant data in a comprehensible story

15. Mine or otherwise obtain raw data and form it into query-able databases

16. Develop the ability to code, modify, and develop the presentation means to communicate newsworthy stories to mass audiences on multiple platforms

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)

S.I. Newhouse School of Public Communications

COM 698 - Media Law 3 credit(s)

CPS 621 - Introduction to Probability and Statistics 4 credit(s)

CPS 681 - Explorations in Computing and Programming 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 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 528 Multimedia Projects 3 credit(s)

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

Norman Kutcher, Co-Director

315-443-1264, nakutcher@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.

Student Learning Outcomes in Documentary Film & History

1. Identify the principles and laws associated with free speech and press for the US, as well as compare the American system of freedom of expression with others around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances
2. Critically, creatively, and/or independently consider problems and issues relevant to the communications professions
3. Conduct research and/or evaluate information by methods appropriate to the communications professions
4. Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve
5. Evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness
6. Apply tools and technologies appropriate for the communications professions in which they work
7. Produce films that tell stories using best practices in documentary filmmaking

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) taken three times taken three times

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 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 magazines, newspapers, wire services, 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.

Student Learning Outcomes in Magazine, Newspaper and Online Journalism

In addition to the learning outcomes listed in the Newhouse School mission statement, students in the Magazine, Newspaper and Online Journalism Master's program are expected to achieve the following educational goals:

S.I. Newhouse School of Public Communications

1. Contribute to knowledge appropriate to the communications professions in which they work.
2. Demonstrate cross-platform fluency by producing a range of content types for a digital world.

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:

Michael Schoonmaker, Co-director, M&E; Chair, TRF, msschoon@syr.edu, 315-443-2150

Jeffrey Mangram Co-director, M&E; Program Coordinator, Social Studies Education, jamangra@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.

Student Learning Outcomes in Media and Education

In addition to the learning outcomes listed in the Newhouse School mission statement, students in the Magazine, Newspaper and Online Journalism Master's program are expected to achieve the following educational goals:

1. Explain foundational history, theories and research around the convergence of media and education
2. Explain and critically assess the legal, cultural, institutional and ethical dimensions of education and media
3. Propose and produce an independent media production project that will address an educational issue
4. Explain and use conventional and emerging visual media and demonstrate skill in storytelling
5. Play a role as a change agent using creative screenwriting and project development solutions for educational environments

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 to 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.

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):

CFE 662 - Youth, Schooling and Popular Culture 3 credit(s)

TRF 655 - Screenwriting and Production Workshop 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.

EDU 603 - Introduction to Qualitative Research 3 credit(s)

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

S.I. Newhouse School of Public Communications

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)

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):

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 553 - Women and Social Change 3 credit(s)

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)

Education Elective - (3 credits) One course from:

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)

EDU 610 - The American School 3 credit(s)

EDU 778 - Narrative Inquiry in Research and Creative Practice 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)

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.

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.

Student Learning Outcomes

1. Apply the core communication theories and concepts of mediated communications
2. Apply the key qualitative and quantitative research methods used in the field of communications
3. Recognize the role of contemporary media systems and processes in society and culture
4. Recognize the basic principles of the First Amendment and communications law
5. Recognize the role of media in a diverse and global environment
6. Complete and write - in the appropriate style - and original research project that fulfills the requirements for a Master's thesis

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

S.I. Newhouse School of Public 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 Masielat, 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.

Student Learning Outcomes

1. Analytical Thinking: Ability to analyze the validity and structure of a media business problem statement, identify the core questions and challenges, frame the relevant systemic

variables, evaluate the viability of various solutions, and conduct research to address gaps in knowledge or understanding. (ACEJMC: F, L)

2. Ethical Conduct: An eagerness to involve other people and perspectives, integrating both into one's academic and professional work, and regular demonstration of integrity by strict adherence to relevant laws, and industry best practices. (ACEJMC: H, I)

3. Information Fluency: Graduates can derive and analyze multiple representations of quantitative information, including multivariate equations, numerical/tabular data, verbal/visual information, and use these to write tactical recommendations aligned to strategic goals. (ACEJMC: A, D, F, L)

4. Leadership & Teamwork: Graduates demonstrate the ability to respectfully lead (and contribute to) diverse teams, working in a cooperative and coordinated manner to accomplish stated goals and objectives. (ACEJMC: K, L)

5. Strategic Management: Ability to translate strategic business goals for a media or content business or unit into an innovative content management plan designed to accomplish those stated goals in an ethical manner, mindful of the institutional and cultural forces in play. (ACEJMC: A, C, E, H)

6. Technical Acumen: Ability to recognize, modify, and apply the technical, theoretical and managerial principles of content management, content optimization, and distribution in a digital media business or unit. (ACEJMC: B, C, F)

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

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, Soo Yeon Hong, Lawrence Mason Jr., Renée Stevens, 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.

Student Learning Outcomes

1. Identify the principles and laws associated with free speech and press for the US, as well as compare the American system of freedom of expression with others around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances
2. Use knowledge of the history of the media industry to adapt to current communications work environment
3. Explain mass communications in relation to social identities such as gender, race ethnicity, sexual orientation and, as appropriate, other forms of diversity in American society
4. Recognize how the diversity of peoples and cultures has shaped mass communications in a global society
5. Apply theories and concepts of design and visual communication to the use and presentation of images and information
6. Recognize professional ethical principles and apply them in pursuit of truth, accuracy, fairness and diversity
7. Critically, creatively, and/or independently consider problems and issues relevant to the communications professions
8. Conduct research and/or evaluate information by methods appropriate to the communications professions
9. Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve
10. Evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness
11. Apply basic numerical and statistical concepts
12. Apply tools and technologies appropriate for the communications professions in which they work
13. Contribute to knowledge appropriate to the communications professions in which they work
14. Produce professional quality cinematographic and photographic stories by synthesizing the best practices and current theories of traditional still, motion and emerging media

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) or
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, Hua Jiang, Dennis F. Kinsey, Joon Soo Lim, Regina Luttrell, Steven Pike, 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 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.

Student Learning Outcomes

1. Law: Identify the principles and laws associated with free speech and press for the

S.I. Newhouse School of Public Communications

US, as well as compare the American system of freedom of expression with others around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances

2. Professional History: Use knowledge of the history of the media/public relations industry to adapt to current communications work environment

3. US Diversity: Explain mass communications in relation to social identities such as gender, race ethnicity, sexual orientation and, as appropriate, other forms of diversity in American society

4. Global Diversity: Recognize how the diversity of peoples and cultures has shaped mass communications in a global society

5. Visual Communication: Apply theories and concepts of design and visual communication to the use and presentation of images and information

6. Ethics: Recognize professional ethical principles and apply them in pursuit of truth, accuracy, fairness and diversity

7. Critical Thinking: Critically, creatively, and/or independently consider problems and issues relevant to the communications professions

8. Research: Conduct research and/or evaluate information by methods appropriate to the communications professions

9. Writing: Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve

10. Critical Evaluation: Evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness

11. Use of Numbers: Apply basic numerical and statistical concepts

12. Technology: Apply tools and technologies appropriate for the communications professions in which they work

13. Contribute Knowledge: Contribute to knowledge appropriate to the communications professions in which they work

14. Management: Apply management principles as related to leadership, strategic planning for public relations departments, collaborating on teams, conducting performance reviews, integrating strategic communications with other organizational functions, and considering fiscal resources

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, 315-443-2150

Faculty

Frank Biocca, Richard L. Breyer, Fiona Chew, Richard Dubin, Larry Elin, Imraan Farukhi, Keith Giglio, Tula Goenka, Sharon R. Hollenback, Barbara E. Jones, Patricia H. Longstaff, Douglas Quin, Michael Schoonmaker, Evan Smith, Olivia Stomski, 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.

Student Learning Outcomes

1. Identify the principles and laws associated with free speech and press for the US, as well as compare the American system of freedom of expression with others around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances
2. Describe how professionalization has historically shaped the institutions in communications. Use knowledge of the history of the media industry to adapt to current communications work environment
3. Explain mass communications in relation to social identities such as gender, race ethnicity, sexual orientation and, as appropriate, other forms of diversity in American society
4. Recognize how the diversity of peoples and cultures has shaped mass communications in a global society
5. Apply theories and concepts of design and visual communication to the use and presentation of images and information
6. Recognize professional ethical principles and apply them in pursuit of truth, accuracy, fairness and diversity
7. Critically, creatively, and/or independently consider problems and issues relevant to the communications professions
8. Conduct research and/or evaluate information by methods appropriate to the communications professions
9. Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve
10. Evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness
11. Apply basic numerical and statistical concepts
12. Apply tools and technologies appropriate for the communications professions in which they work
13. Produce entertainment media at the level that would be expected of entry-level job performance in film, television or radio industries
14. Contribute to knowledge appropriate to the communications professions in which they work

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 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) -Acting Workshop -Post Production Workflow -Avid Editing I -Avid Editing II -Color Correction -Advanced Final-Cut Editing -Producing the Fashion Video -The Art and Science of Managing Creative Teams -Reality Check/Unscripted TV -Art of the Sizzle Reel

TRF 530 - Popular Culture Studies 3 credit(s) *The Wire: Study in Serialization -Sports on TV -The Godfather: Script Analysis*

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) - Visual Effects Workshop: Creating VFX Assets

TRF 600 - Selected Topics 1-6 credit(s) - Visual Effects Workshop: Compositing

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) - Cinematography

TRF 600 - Selected Topics 1-6 credit(s) - Writing for Television: One-Hour Drama

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 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 Underscoring 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.

S.I. Newhouse School of Public Communications

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 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, 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) 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/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, 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

S.I. Newhouse School of Public Communications

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 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/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/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, 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) 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).

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

S.I. Newhouse School of Public Communications

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 can 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. Graduation 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:

During their studies, students must complete a three-credit internship, as well as six credits towards a distinct international relations career track, as well as one of the following five International Relations signature courses.

PAI 707 - Culture in World Affairs 3 credit(s)

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)

Required International Relations internship 3 credits

Career Track Course 6 credits

Total: 58 credits

Certificate of Advanced Study

Media & Education, CAS

Contact information for the CAS program:

Michael Schoonmaker, Co-director, M&E; Chair, TRF, msschoon@syr.edu, 315-443-2150

Jeffrey Mangram Co-director, M&E; Program Coordinator, Social Studies Education, jamangra@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.

Student Learning Outcomes for the CAS in Media and Education

Students in the Media and Education certificate program are expected to achieve the following educational goals:

1. Analyze the role of popular culture and media as a tool for educational and social purposes.
2. Explain and critically assess the legal, cultural, institutional and ethical dimensions of education and media.
3. Demonstrate skill in media storytelling applied to the goals of education.
4. Integrate media in their specific educational context.

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 to 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

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)

S.I. Newhouse School of Public Communications

TRF 606 - Visual Storytelling for Education 3
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 students 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.

Newhouse 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/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

S.I. Newhouse School of Public Communications

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

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.

S.I. Newhouse School of Public Communications

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 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.

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 670 - Experience Credit

S.I. Newhouse School of Public Communications
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

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
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

S.I. Newhouse School of Public Communications

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 528 - Multimedia Projects

S.I. Newhouse School of Public Communications
3 credit(s) At least 1x fall or spring
Students design and script an interactive storytelling project that includes photos, videos, sound, text, graphics, and database information, which then will be prepped for publication intended for mobile device.

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.

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

Media & Education

M&E 601 - Media and Education CAS Colloquium

S.I. Newhouse School of Public Communications
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

S.I. Newhouse School of Public Communications
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

S.I. Newhouse School of Public Communications
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

S.I. Newhouse School of Public Communications
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

S.I. Newhouse School of Public Communications
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

S.I. Newhouse School of Public Communications
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

S.I. Newhouse School of Public Communications
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.

M&E 690 - Independent Study

S.I. Newhouse School of Public Communications
1-6 credit(s) Upon sufficient interest
Repeatable

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.
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

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.

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

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 580 - International Course

S.I. Newhouse School of Public Communications
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

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 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
Double Numbered with: PRL 345

S.I. Newhouse School of Public Communications

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, 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

S.I. Newhouse School of Public Communications

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 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.

College of Visual and Performing Arts

Michael Tick, 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 five areas: School of Art, the School of Design, the Department of Transmedia, Communication and Rhetorical Studies 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 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-lighted 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.

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.

Communication and Rhetorical Studies

Contact

Charles E. 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.

Combined Degree

Communication and Rhetorical Studies, MA

Contact

Charles Morris III, Chairperson
100 Sims Hall, 315-443-2308, cemorris@syr.edu

Dana L. Cloud, Director of Graduate Studies

100 Sims Hall, 315-443-5140, dlcloud@syr.edu

Faculty

Richard W. Buttny, Dana Cloud, Kathleen Feyh,

Jeffrey Good, Rachel Carey Hall, Amos Kiewe, Charles Morris III, Kendall Phillips, Erin J. Rand

Description

The M.A. in Communication and Rhetorical Studies requires 33 credits beyond the B.S. or B.A. degree. Twenty-four credits must be taken in the Department of Communication and Rhetorical Studies, and up to 9 may be taken in areas outside the department. No more than 6 credits may be earned in independent study courses. Candidates may choose to write a thesis for 6 credits, or earn the entire 33 credits in coursework and take a culminating comprehensive examination. The Department of Communication and Rhetorical Studies provides degree candidates with first-rate training in communication research, preparing graduates for competitive careers within academe. The curriculum features concentrations in areas for which it has already earned national and international, disciplinary and university, honors based on a proven record of scholarly and pedagogical excellence in rhetoric, critical/cultural studies, and discourse analysis. Furthermore, CRS is committed to producing citizen-scholars-creators who regard communication as a “doing” in the world. We encourage future members of the professoriate to reflexively consider the impact of their scholarship and pedagogy on society at large. The Graduate Record Examination (GRE) is required. Admission into the program as well as graduate assistantship and scholarship awards are determined by the Graduate Admissions Committee in the Department of Communication and Rhetorical Studies.

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.

Student Learning Outcomes

1. Analyze communicative acts [Analysis and Criticism]
2. Describe and evaluate key communication theories [Theory]
3. Design, execute and write an original research project [Research]
4. Ethically and effectively engage and audience through a variety of media [Performance]

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 602 - Emperical 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: MA in Communication and Rhetorical Studies

Department of Transmedia

Doug Dubois, Chair Department of Transmedia
102 Shaffer Art Building, 315-443-1033
<http://vpa.syr.edu/academics/transmedia/graduate/>

The Department of Transmedia offers M. F. A. programs in Computer Arts, Film, Photography and Video. Students work among a variety of programs, tailoring their studies to specific research concerns. Graduate students are immersed in an intimate and rigorous interdisciplinary course of study which fosters the necessary critical, technical and conceptual tools to create ambitious, intelligent work. This multivalent approach cultivates a vital understanding of the complex ways media is braided with culture, science, politics, philosophy, and popular entertainment. Students work closely with award-winning faculty and roster of internationally recognized visiting artists.

In addition to access to state-of-the-art facilities and equipment, M. F. A. candidates in Transmedia and Studio arts have the opportunity to participate in the Semester Residency Program. Focused on both the development of studio/creative practices and the essential professional skills required of today's contemporary artist, the program immerses students in internationally recognized arts centers, including Los Angeles*, London and Berlin. Acting as a bridge between academic study and a career in the arts, the Semester Residency Program allows students to define themselves and their work in relation to the field of contemporary art, providing a means to find their motivations, aims, and direction in the myriad number of opportunities this field affords. Guided by resident faculty, studio visits with local artists, curators and writers and numerous exhibition opportunities, the Semester Residency Program enables students to make the often difficult transition to professional artist.

*The Turner Semester Residency in Los Angeles is possible through the generous support of Marilyn Turner Klaus and Chuck Klaus.

- In addition, specific concerns of diversity are addressed in the courses listed below:
- AED 522 - Art for Special Populations

- ART 561 - Studio Symposium
- ART 563 - Art in America I
- ART 564 - Art in America II

IND 577 - Industrial Design: Philosophy and Ethics

Master's

Art Photography, MFA

Contact

Laura Heyman, Department of Transmedia
102 Shaffer Art Building, 315-443-1033,
lheyman@syr.edu

Faculty

Yasser Aggour, Doug DuBois, Laura Heyman, Susannah Saylor

Description

The M.F.A. program in art photography 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 practices. The department does not proscribe a specific arena of investigation; students are encouraged to establish their own conceptual and visual research. Through critiques, individual meetings, and an extensive visiting artist program, students are immersed in a challenging and dynamic learning environment. And because the art world is increasingly professional and global, our program has created several opportunities to study overseas, including a semester-long residency in Berlin. Within the department of Transmedia, there are several summer courses abroad, including faculty-led visits to the Venice Biennale and Moscow art-scene.

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. Students have access to production facilities both at Light Work and department labs, enabling students easy access to world-class digital facilities. The program also has professional lighting and camera equipment available for student use.

Student Learning Outcomes

1. Conceptualize and create original works with depth and lyricism. Create original work that has the potential to have artist gain national reputation. Produce a significant body of work that is gallery ready
2. Write and talk about their work in a professional manner. They must be able to demonstrate historical /and or theoretical context for their work. In addition they must be

able to distill central ideas to their work in 250 words, 500 words, and 2000 words. In addition, students must make an oral presentation of their work and be able to field questions from a review committee

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: 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 Art Video M.F.A. program compresses inclusive media art design with art-making practice. This graduate program 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 video and related media, including mediated performance art, expanded narrative, radical documentary, multichannel and site-specific installation, and moving picture and sonically rich art for network intervention and life. The program is supported by digital video and audio facilities. Production is executed with DSLRs and high-end digital camcorders and necessary peripherals (tripods, mics, lights, etc.). Dedicated lighting and green screen studios are available for production.

Post-production is done on state-of-the-art, digital non-linear systems, including a discrete multi-track digital audio studio. HD projectors and flat screens are provided for installations and exhibitions. Analog, linear systems are available for archival research and conservation. We have

a comprehensive, international collection of video art available for research and teaching. 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. Teaching assistantships permit opportunities to establish classroom teaching experience. The production and post-production facilities are staffed by graduate students, affording opportunities to learn successful management of a multi-use, multi-format facilities. Art Video M.F.A. degree recipients have typically continued in their field as video artists, multimedia designers, post-production specialists, independent producers, and faculty in other university video, film and new media programs.

Student Learning Outcomes

1. Investigate the many ways video technology is used creatively; as a visual art form integrating computer-generated images, audio experimentation and performance art; and as a sculptural medium used in site-specific installations
2. Develop a multidisciplinary approach to video production
3. Develop a set of technology skills including how to use camcorders, DSLRs and digital video sensors, editing systems, video display devices and networks
4. Produce work informed by the historical and theoretical tenets of the medium
5. Through the progressive refinement of aesthetics explore the integrated relationship of content and form
6. Develop a professional attitude to their work through personal exhibitions and/on screenings in clubs, festivals, galleries, museums, etc.

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

Computer Art, MFA

Contact

Heath Hanlin, Department of Transmedia
102 Shaffer Art Building, 315-443-1033,
hahanlin@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

College of Visual and Performing Arts

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.

Student Learning Outcomes

1. Demonstrate conceptual skills in Computer Art projects
2. Create projects in the historical and theoretical context of their fields of specialization
3. Articulate thoughts and concepts clearly and effectively through Computer Art projects
4. Demonstrate professional practice skills through projects in Computer Art
5. Conceptualize and realize Computer Art projects / artworks

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,
ojs Shapiro@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 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.

Student Learning Outcomes

1. Demonstrate a broad set of skills in Film that allow a student to understanding abstract ideas and complicated processes while also think creatively*
2. Analyze theoretical, critical and historical thoughts and concepts clearly and effectively through film
3. Demonstrate professional practice skills through projects in Film
4. Produce quality films that demonstrates a cohesive and compelling production, appropriate to the medium while effectively manage the resources and logistics to produce a film
5. Demonstrate Technical Proficiency involving process or technique knowledge in Film Production and Directing

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

School of Art

Stephanie James, Director
School of Art
102 Shaffer Art Building, 315-443-4613
<http://vpa.syr.edu/academics/art/graduate/>

The School of Art is an accredited institutional member of the National Association of Schools of Art, 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; Light Work; and the Sue Ann Genet Costume Collection.

As a professional school within a major university, the School of Art 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 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.

- The School of Art 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 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 561 - Studio Symposium
- ART 563 - Art in America I
- ART 564 - Art in America II
- IND 577 - Industrial Design: Philosophy and Ethics

Illustration, MFA

Contact

James Ransome, Program Coordinator
347 Shaffer Art Building, 315-443-1138,
jransome@syr.edu

Faculty

Martha Blake, Tim Bower, Maria Carluccio. Sonia Chaghatzbanian, Robert Dacey, James Ransome

Description

This program is well suited for individuals who wish to further their professional illustration skills. The candidates will produce a body of work as a thesis requirement and participate in the M.F.A. exhibition. Candidates develop their personal visual voice in contemporary illustration, through traditional and digital art media as well as engage in creative problem solving processes to communicate ideas and stories. The resident illustration program faculty members are all nationally recognized illustrators. They are supplemented by prominent visiting faculty, participation in national events and lecturers. Students may complete the award of Master of Fine Arts in Illustration on a 3-year program and take advantage of the Maymester summer program to gain credits.

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

Studio Arts, MFA

Contact

Stephanie James, Director
102B Shaffer Art Building
315-443-3012, sljames@syr.edu

Coordinator: Sam Van Aken

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. Students are encouraged to celebrate ideas and creative risk-taking through their chosen studio focus but also through the interdisciplinary and collaborative activity taking the students beyond the obvious, as they meet the 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 creative industries. 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 graduate residency program after completion of a minimum of 51 credits. Graduate studies are enhanced by an extensive visiting artist, critics and curator program. M.F.A. candidates have the opportunity to have close contact with professional artists and research-active faculty through lectures and individual studio critiques.

Graduate study in studio arts may be directed toward an intensive in ceramics, drawing, jewelry and metalsmithing, painting, performance, printmaking, sculpture and/or time arts, or an interdisciplinary approach to contemporary practices.

Student Learning Outcomes

1. Demonstrate confidence as arts practitioners who can make a difference in the world through application of skills, synthesis of ideas and knowledge
2. Find and solve real problems through creative risk-taking
3. Engage in collaborative activity taking their art practice beyond the obvious
4. Embrace unpredictable and challenging possibilities through professional practices.
5. Interrogate, make and confidently critique and reflect on their practice
6. Engage in theoretical and contextual understanding as it relates to individual practice

and positions individual practice in the wider context

Requirements

Proposed 2-year or 3-year MFA options.
2-year utilizing the summer period (optional)
3-year which includes a placement year.
3-year (ARI 603 Graduate Seminar 2, ARI 604 Graduate Critique 2 and Studio Academic Electives in Year 2)

- Fall Semester 1
- ARI 601 - Graduate Seminar 1: Theory and Ideas 6 credit(s) 6 credits

ARI 603 - Graduate Critique 1: Practice in Visual Arts 6 credit(s) 6 credits

Academic or Studio Elective (3 credits)

- Spring Semester 1
- ARI 602 - Graduate Seminar 2: Professional Studies 6 credit(s) 6 credits

ARI 604 - Graduate Critique 2 6 credit(s) 6 credits

Studio Elective (3 credits)

Summer Semester

ARI Intensive (3 credits)

ARI Intensive (3 credits)

- Fall Semester 2
- ARI 701 - Graduate Seminar 3: Graduate Thesis 6 credit(s)

ARI 703 - Graduate Critique - 3 6 credit(s)

ARI Intensive (3 credits)

- Spring Semester 2
- ARI 702 - Graduate Seminar 4: Graduate Exhibition 6 credit(s)

ARI Intensive (3 credits)

ARI Intensive (3 credits) -Optional

ARI Intensive (3 credits) -Optional

School of Design

James Fathers, School of Design
The Warehouse, 315-443-2455;jwfather@syr.edu
<http://vpa.syr.edu/academics/design/graduate/>

The School of 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 Design offers a wealth

College of Visual and Performing Arts

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 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.

- The School of 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 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 561 - Studio Symposium
- ART 563 - Art in America I
- ART 564 - Art in America II

IND 577 - Industrial Design: Philosophy and Ethics

Master's

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 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 design.

The M.F.A. in 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 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 identified with your advisor. All students, even those with a design background, are required to take the Intro to Design Communication along with Design Thinking & Strategies.

Student Learning Outcomes

1. Conduct design research and apply these methodologies to the discovery of key insights
2. Using a variety of design communication skills, students will learn to convey their concepts to a diverse group of stakeholders
3. Apply design thinking methodologies to a range of projects
4. Build and maintain collaborative teams through the management and facilitation of multi-disciplinary projects
5. Apply these concepts to project based efforts within the curriculum
6. Formulate a thesis question and subsequent thesis paper to be submitted to a committee of academic and industry experts and mounting a public exhibition of their thesis

Program Requirements

Required Courses

- DES 601 - Design Thinking and Strategies 3 credit(s)
- DES 647 - Design Research 3 credit(s)
- DES 648 - Introduction to Design Communication 3 credit(s)
- DES 748 - Design Communication 3 credit(s)
- DES 771 - Analysis and Synthesis 3 credit(s)
- DES 772 - Design Project 6 credit(s)
- DES 996 - Final Presentation 3 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 Design

Museum Studies, MA

Contact

Emily Stokes-Rees, School of Design
The Nancy Cantor Warehouse 315-443-2455,
ewstokes@syr.edu

Faculty

Andrew Saluti, Emily Stokes-Rees, Meriel Stokoe

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 departments and fields, including Art History, Anthropology, Information Studies, Transmedia, Studio Art, Education, and Communications, among others. A significant number of students pursue concurrent or sequential degrees in such fields as art history, anthropology, arts leadership, 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 studios to hear from prominent artists, curators, and gallery owners, many of whom are accomplished SU alumni. In addition to academic faculty, the program includes courses taught by 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

College of Visual and Performing Arts

and staff organize many field trips to museums and conferences, and also 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.

Student Learning Outcomes

1. Analyze the historic and contemporary roles of museums in global society and culture
2. Apply appropriate museum policies, procedures, and ethical standards to their work
3. Demonstrate competency in visual communication and presentation via a range of appropriate tools and technologies used by museum and gallery professionals
4. Describe the complex and evolving roles practitioners play in today's museums and other cultural and heritage organizations
5. Model skills in effective communication for professional practice in a museum environment to engage a variety of audiences
6. Design and install to accepted professional standards for museums and galleries
7. Demonstrate museum-related skills effectively in a professional environment

Program Requirements

Core requirements: 18-21 credits

- MUS 503 - Introduction to Museum Studies 3 credit(s)
- MUS 506 - Ethnographic 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 - Fine Art 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

Certificate of Advanced Study

Cultural Heritage Preservation, CAS

Contact:

Jill Hurst-Wahl, 208 Hinds Hall, (315) 443-1070, igrad@syr.edu

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 - Ethnographic Curatorship 3 credit(s)
- MUS 607 - Collections Management 3 credit(s)

MUS 703 - Fine Art 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)

Students will work at an institution, agency, or community organization for their 150-hour internship(s).

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, Director
215 Crouse College, 315-443-5892
<http://vpa.syr.edu/academics/setnor/graduate/>

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

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 a terminal requirement of two graduate-level recitals. 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.

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice
2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures
3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program

4. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

5. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

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).

College of Visual and Performing Arts

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.

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice
2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and demonstrate a functional understanding of musical forms, processes, and structures.
3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program
4. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to compose a cross-section of repertoire

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 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

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice
2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures
3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program
4. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire
5. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

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 Organ

Percussion, MMus

Contact

Steven Heyman, Chair, Department of Applied Music and Performance
310 Crouse College, 315-443-1638,
sheyman@syr.edu

Faculty

Michael Bull, Joshua Dekaney

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 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.

Student Learning Outcomes

1. Demonstrate advanced competencies to

College of Visual and Performing Arts

develop research studies and utilize findings in fields of artistic or pedagogical practice

2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures

3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program

4. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

5. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

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 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.

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice
2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures
3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program
4. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire
5. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

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

Faculty

Deette Bunn, Edward Castilano, Eric Gustafson, Margret Mercer, Kenneth Meyer, Gregory Wood

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 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.

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice
2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures

College of Visual and Performing Arts

3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program

4. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

5. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

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/Piana 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.

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice

2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures

3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program

4. Demonstrate knowledge of physiology of the vocal tract and its related physical functions, appropriate repertoire for teaching voice, and the ability to use current technology in the field of vocology

5. Demonstrate through research presentations and vocal performance the specifics of lyric diction and poetry in the language styles of French, German, and Italian

6. Demonstrate skills in critical thinking, academic research, and writing about music as they pertain to the development of recital programs and preparation of music for public performance

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 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, Richard Crawley, Jonathan English, Eric D. Johnson, Julie McKinstry, Bridget Moriarty, Kathleen Roland-Silverstein, Julianna Sabol, Carolyn Weber

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 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.

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice
2. Demonstrate an understanding of the advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures
3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program
4. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire
5. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

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

Faculty

Cornelia Brester, Jill Coggiola, Michael Coldren, Kelly Covert, Dana DiGennaro, Jon Garland, William Harris, Diane Hunger, Christopher Jabot, Alina Plourde, Gregory Quick, Jeffrey Stockham

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 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.

Student Learning Outcomes

1. Demonstrate advanced competencies to develop research studies and utilize findings in fields of artistic or pedagogical practice
2. Demonstrate an understanding of the

advanced elements and organizational patterns of music and their aural and verbal analysis and a functional understanding of musical forms, processes, and structures

3. Demonstrate the required knowledge and skills to create and present a culminating demonstration of master's level capability in relating or integrating research and practice through the completion of a final project consistent with the goals of the degree program

4. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

5. Demonstrate skills for functional and artistic self-expression at the appropriate level and the ability to perform a cross-section of repertoire

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

VPA Courses

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

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 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
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 668 - Social Movement Rhetorics

Communication and Rhetorical Studies
3 credit(s) Even Academic Yr e.g. 2004-5
Offers theoretical and critical inquiry into the rhetoric of social movements through diverse interdisciplinary scholarship and case studies.

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

Art Photography

APH 561 - Art Photography: Contemporary Art and Photography

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
0-6 credit(s) Every semester
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

Computer Art

CAR 501 - Animation Workshop II

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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.

College of Visual and Performing Arts

PREREQ: CAR 101
Repeatable

CAR 630 - Computer Art Studio

Department of Transmedia
3-12 credit(s) Every semester
Research problems. Counseling and permission of advisor to determine area of study. Permission of Instructor.
Repeatable

CAR 730 - Computer Art Studio

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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 500 - Selected Topics

Department of Transmedia
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

FIL 520 - Film Studies Seminar

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

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

FIL 726 - Film Theory: Topics

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

FIL 996 - Final Presentation

Department of Transmedia
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.

FIL 997 - Masters Thesis

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
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

Department of Transmedia
3 credit(s) Irregularly

Art Education

AED 510 - Special Problems in

Art Ed

School of Art

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

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

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

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

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

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

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

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

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

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

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

2-18 credit(s) Upon sufficient interest
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

3 credit(s) At least 1x fall or spring
Crosslisted with: AIC 619
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

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

1-6 credit(s)
Repeatable

Arts in Context

AIC 610 - The Creative Classroom: Reexamining School Art Misconceptions Through Studio Inquiry

School of Art

3 credit(s) At least 1x fall or spring
A studio art course that disrupts misconceptions about the relevance of the arts and design practices in education through arts-based inquiry.

AIC 611 - Creative Leadership and Social Responsibility in the Arts

School of Art

3 credit(s) Every semester
Double Numbered with: AIC 311
Online course designed to equip students with strategies for a socially responsible approach to creative leadership and citizen entrepreneurship that may be applied within school systems, arts organizations, museums, and community centers. Additional work required of graduate students.

AIC 612 - Methods in Creative Leadership: Talent/Agency

School of Art

3 credit(s) Every semester

Double Numbered with: AIC 312
Community engagement coursework focused on planning and instruction of ongoing arts & design-based portfolio development, mentoring workshops for teens, fostering the next generation of creative leaders. Additional work required of graduate students.

AIC 618 - Collaborative Arts & Design Practices

School of Art
3 credit(s) Every semester
Double Numbered with: AIC 318
Drawing upon diverse disciplinary content rethinking the role of the arts & design in society as purpose-driven, as a way of knowing and as an urgent, beneficial means of active social entrepreneurship. Additional work required of graduate students.

AIC 619 - Making Methodology: Exploring Arts-based Research

School of Art
3 credit(s) At least 1x fall or spring
Crosslisted with: AED 798
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.

AIC 621 - Art, Activism, Modernity

School of Art
3 credit(s)
Double Numbered with: AIC 321
History, theory, and practice of visual artists in publicly-engaged, community-based, and socially-active projects.

AIC 623 - Artists Who Write

School of Art
3 credit(s)
Double Numbered with: AIC 423
Analysis, history of manifestos, theoretical writings produced by visual artists in the 20th century. Students write their own manifestos, press releases, artist statements and other forms of art communication.

AIC 632 - The Artist Critic

School of Art
3 credit(s) At least 1x fall or spring
Double Numbered with: AIC 332
Designed for students who have an interest in becoming a critic in the arts. Each week new productions will come under your scrutiny in the development of your views and critical positions. Additional work required of graduate students.

Art Intensive in Studio Arts

ARI 500 - Selected Topics

School of Art
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.

ARI 563 - Painting: Art for Non-Majors

School of Art
3 credit(s) Every semester
This course encourages students to develop ideas and objectives, to be self-critical, and experiment with approaches to and techniques in painting. Open to all levels. Additional work for graduate students.
Repeatable 1 time(s), 6 credits maximum

ARI 564 - Studio Symposium

School of Art
3 credit(s) At least 1x fall or spring
Crosslisted with: ART 561
Introduce students to the world of visual art, its purposes and practices, themes and concerns. Various disciplines, historical, and stylistic periods of art are examined to understand the intentions of the artists and periods reviewed.

ARI 566 - Painting: Experimental Media: Assemblage/Collage

School of Art
3 credit(s) At least 1x fall or spring
Students will create artworks using non-traditional materials exploring assemblage with found materials.
Repeatable 1 time(s), 6 credits maximum

ARI 575 - Lake Effect Editions: Fine Art Print Publishing

School of Art
3 credit(s) Every semester
Work directly with Visiting Artists to create new works on paper. Participants will also get experience with the presentation and sale of works on paper published by Lake Effect Editions.
Repeatable 1 time(s), 6 credits maximum

ARI 600 - Selected Topics

School of Art
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

ARI 601 - Graduate Seminar 1: Theory and Ideas

School of Art
6 credit(s) At least 1x fall or spring
Designed for first year graduate students ARI 601, is an introduction to the MFA, focusing on

the development of artistic practice enabling the students to define their place within and beyond contemporary artistic practices.

ARI 602 - Graduate Seminar 2: Professional Studies

School of Art
6 credit(s) At least 1x fall or spring
Focuses on the development of essential professional practices in the visual arts and is designed to support each student to identify and build the necessary professional skills as they relate to individual artistic practices.
PREREQ: ARI 601

ARI 603 - Graduate Critique 1: Practice in Visual Arts

School of Art
6 credit(s) Every semester
Brings students together to take part in critique. This team taught course is designed to engage students in the creation and discussion of art in a contemporary context broader than specific media and discipline.

ARI 604 - Graduate Critique 2

School of Art
6 credit(s) Every semester
Students take part in critique of practice in a professional context. This team taught course is designed to engage students in the creation and discussion of art beyond that of specific media and discipline.

ARI 690 - Independent Study

School of Art
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

ARI 701 - Graduate Seminar 3: Graduate Thesis

School of Art
6 credit(s) At least 1x fall or spring
This course will focus each student in their endeavor to compose a thesis paper prior to their creation of a body of thesis work creating the foundation for their future practice and career.
PREREQ: ARI 602

ARI 702 - Graduate Seminar 4: Graduate Exhibition

School of Art
6 credit(s) At least 1x fall or spring
This course will focus each student in their endeavor to realize a body of thesis work following the writing of the thesis paper in ARI 701 creating the foundation for their future practice and career.
PREREQ: ARI 602 AND ARI 701

College of Visual and Performing Arts

ARI 703 - Graduate Critique - 3

School of Art

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

Brings students together to take part in advanced level critique. This team-taught course engages students in the creation of their artwork and discussion of it in a contemporary context.

PREREQ: ARI 602 AND ARI 603 AND ARI 604

Arts Lab

ARL 600 - Selected Topics

School of Art

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

Art

ART 500 - Selected Topics

School of Art

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

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

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

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

Crosslisted with: ARI 564

Introduce students to the world of visual art, its

purposes and practices, themes and concerns.

Various disciplines, historical, and stylistic periods of art are examined to understand the intentions of the artists and periods reviewed.

ART 563 - Art in America I

School of Art

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

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

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

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

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

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

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

3 credit(s) Upon sufficient interest

ART 702 - Graduate Seminar

School of Art

3 credit(s) Upon sufficient interest

Ceramics

CER 520 - Raku Workshop

School of Art

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

1-6 credit(s) Every semester

Advanced research.

PREREQ: CER 423 AND 424

CER 527 - Ceramic Technology Research

School of Art

1-6 credit(s) Odd academic yr e.g. 2007-8

Varied technical and chemical problems that are the daily concerns of the studio ceramist. Lectures, research, shop, laboratory practices, kiln construction, and ceramic studio maintenance.

CER 528 - Ceramic Technology Research

School of Art

1-6 credit(s) Odd academic yr e.g. 2007-8

Varied technical and chemical problems that are the daily concerns of the studio ceramist. Lectures, research, shop, laboratory practices, kiln construction, and ceramic studio maintenance.

PREREQ: CER 428

CER 529 - Ceramics Workshop

College of Visual and Performing Arts

School of Art

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 720 - Ceramic Research Problems

School of Art

1-12 credit(s) Upon sufficient interest Continuation of CER 620. Permission of Instructor. Repeatable

CER 996 - Final Presentation

School of Art

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

1-6 credit(s) Every semester 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

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

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

1-6 credit(s) Every semester Crosslisted with: PTG 555 Drawing as an expression and creative art form. PREREQ: PTG 455 AND 456

DRW 600 - Selected Topics

School of Art

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.

DRW 650 - Drawing, Graduate

School of Art

1-12 credit(s) Every semester Crosslisted with: PTG 650 Drawing as self-contained expression through contemporary and historical investigation of materials and techniques.

Fiber Arts

FIB 620 - Fiber Arts Research Problems

School of Art

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

1-12 credit(s) At least 1x fall or spring Continuation of FIB 620.

FIB 996 - Final Presentation

School of Art

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

0-6 credit(s) Every semester Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

Illustration

ILL 561 - Illustration Concept

School of Art

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

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 - Intro to Digital Illustration

School of Art and Design

3 credit(s) Every semester Double Numbered with: ILL 256 Exploration and use of vector and bitmap computer applications to solve visual communication problems and create illustrations.

ILL 653 - The Business of Illustration

School of Art

3 credit(s) At least 1x fall or spring Double Numbered with: ILL 453 Presentation, marketing and promotion for the professional illustrator. Pricing, negotiation, contracts, copyright laws, and other professional issues. Repeatable 1 time(s), 6 credits maximum

ILL 655 - Illustration Concepts: Editorial Track II

School of Art

3 credit(s) At least 1x fall or spring Double Numbered with: ILL 455 For senior/graduate students continuing to advance their study in editorial illustration related to Freelance Illustration, Publishing, (either in print or digitally) or Websites. Assignments in drawing and digital skills commenting on social and/or political issues. PREREQ: ILL 355 Repeatable 1 time(s), 6 credits maximum

ILL 656 - Illustration Concepts: Sequential Track II

School of Art

3 credit(s) At least 1x fall or spring Double Numbered with: ILL 456 Advanced skills for Graphic Novels, Children's Books, Comics or Storyboarding. PREREQ: ILL 356 Repeatable 1 time(s), 6 credits maximum

ILL 660 - Illustration Research Problems

School of Art

1-18 credit(s) Upon sufficient interest Research into application of illustration.

ILL 760 - Illustration Communication

School of Art

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

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
0-6 credit(s) Every semester
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

Advertising Design

ADD 540 - Offset Printing

School of 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 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 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 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 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 Design
0-6 credit(s) Irregularly
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 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 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 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 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 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 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 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.

DES 606 - Digital Design Techniques II

School of 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 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 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 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 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 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 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 670 - Experience Credit

School of 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

DES 672 - Introductory Design Studio

School of 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 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 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 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 Design

3 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.
PREREQ: DES 771 AND DES 772

Jewelry and Metalsmithing

JAM 600 - Selected Topics

School of Art

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

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

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

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

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

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

1-6 credit(s) Every semester
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

Printmaking

PRT 551 - Hand Papermaking Workshop

School of Art

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

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

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

College of Visual and Performing Arts

PRT 750 - Printmaking Research Problems

School of Art
1-12 credit(s) Every semester
Continuation of PRT 650.
Repeatable

PRT 996 - Final Presentation

School of Art
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
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
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
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
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
1-6 credit(s) Every semester
Advanced research.

PTG 585 - Painting Materials Techniques

School of Art
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
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
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
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
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
1-12 credit(s) Every semester
Continuation of PTG 660.

PTG 996 - Final Presentation

School of Art
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
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
1-9 credit(s) Every semester
Modeling from life, casting, composition problems.
PREREQ: SCU 207 AND 208

SCU 508 - Sculpture Survey

School of Art
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
3 credit(s) Every semester
This course will focus on using wood and mixed media as art-making materials. Students will learn several woodworking techniques as well as the hand and power tools and machinery necessary to perform them.
Repeatable 2 time(s), 9 credits maximum

SCU 592 - Plastics Techniques Research

School of Art
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
1-9 credit(s) Every semester
Advanced research.
PREREQ: SCU 295 AND 296

SCU 600 - Selected Topics

School of Art
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

SCU 660 - Sculpture, Research Problems

School of Art
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

SCU 760 - Sculpture, Research

Problems

School of Art
1-12 credit(s) Every semester
Continuation of SCU 660.
Repeatable

SCU 996 - Final Presentation

School of Art
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
0-6 credit(s) Every semester
Formal master's thesis. Written document exhibiting substantive and original research. Planned under direction of major departmental advisor.

Environmental Arts

ENA 627 - Field Study in Clothing and Textiles: Design, Construction, and Distribution

School of Design
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

School of Design
3 credit(s) Irregularly
Special problems in draping and flat patterns.

ENA 637 - Costume in Contemporary Society

School of Design
3 credit(s) Irregularly
Twentieth-century clothing forms: origins, evolution, current modes. Fashion and style as reflections of contemporary cultural trends and attitudes.

ENA 660 - Readings in Environmental Arts

School of Design
1-4 credit(s) Every semester
Permission of Instructor.
Repeatable

ENA 670 - Experience Credit

School of Design
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

School of Design
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

School of Design
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

School of Design
0-6 credit(s) Every semester
Repeatable

Fashion Design

FAS 526 - Cultural Aspects of Clothing

School of Design
3 credit(s) Irregularly
Global cultures; how dress and adornment enhance understanding of these cultures.

FAS 530 - Problems in Environmental Arts

School of Design
3 credit(s) Irregularly
Research in design, color, historic backgrounds applied to costume. Permission of Instructor.
Repeatable

Fashion Illustration

FSH 570 - Fashion Illustration Research Problem

School of Design
3 credit(s) Upon sufficient interest
Individual development in specialized areas of fashion illustration.
PREREQ: FSH 471

Industrial Design

IND 571 - Industrial Design: Product Practicum

School of 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 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 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 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 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 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 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 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 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 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 manufacturers.

IND 996 - Final Presentation

School of 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 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 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 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 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 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 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 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

Museum Studies

MUS 500 - Selected Topics

School of 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 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

MUS 504 - Administrative Challenge and Change in Museums

School of 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 - Ethnographic Curatorship

School of Design

3 credit(s) At least 1x fall or spring
Overview of important theoretical and practical challenges facing curators of history and anthropology, using theoretically grounded and case-study based readings. Students also have the opportunity for hands-on experience with collections through a final exhibition project.

MUS 600 - Selected Topics

School of 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 601 - Museum Preparation & Installation

School of Design

3 credit(s) Every semester
Introduction to the basics of art and object handling, installation techniques, object preparation, passive conservation, matting, framing, storage, shipping. New technologies and contemporary practices, including projection, lighting, and sound installations.

MUS 602 - Museum Graphics & Communications

School of Design

3 credit(s) Every semester
Introduction to fundamentals of design and production of museum and exhibition graphics, promotional materials and communication strategies for exhibitions and the museum as a whole. All software is standard to current design industry practices.

MUS 603 - Practicum I

School of Design

College of Visual and Performing Arts

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 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 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 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 - Fine Art Curatorship

School of Design
3 credit(s) At least 1x fall or spring
This course explores the history and current trends in fine art curatorship. Students will be exposed to various curatorial styles and methods specifically dealing with fine arts, and hone research and writing skills through curatorial projects.

MUS 704 - Museum/Gallery Internship

School of 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 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 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 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 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 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 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

Surface Pattern Design

SPD 527 - Advanced Textile Printing

School of Design
3 credit(s)
Individual research of advanced dyeing and printing methods.
PREREQ: TXT 314

SPD 643 - Design Analysis&Synthesis I

School of 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 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 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 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.

Textiles

TXT 537 - Advanced Computer-Aided Pattern Design

School of Design
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

School of 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

TXT 612 - Interior Furnishings

School of Design
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

School of Design
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

School of Design
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

School of Design
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

School of Design
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

School of Design
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 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 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

Applied Music

AMC 500 - Selected Topics

Setnor School of Music
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

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 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 552 - Yoga and Contemplative Practices for Performers

Setnor School of Music
1 credit(s) At least 1x fall or spring
The objective of this class is to introduce basic yoga principles including postures and mindfulness practices that will enable more efficient practice strategies and more focused and authentic performances.
Repeatable 1 time(s), 2 credits maximum

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

College of Visual and Performing Arts

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 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.

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

College of Visual and Performing Arts

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 - University Pep-Band

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.

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

College of Visual and Performing Arts

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.

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

Harpsichord

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 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 I

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 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 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 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 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 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 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 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

College of Visual and Performing Arts

Setnor School of Music

1-2 credit(s) Every semester
Individual instruction emphasizing larger forms and works for larger ensembles.

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 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.

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
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.

College of Visual and Performing Arts

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.

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 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 501 - Reconciling Arts and Commerce: Arts Entrepreneurship

Setnor School of Music
3 credit(s) At least 1x fall or spring
Campus-wide offering for arts-oriented students. Explores the balance between the creative process and commercial realities. Insight on marketing, networking and self-promotion strategies. Permission of instructor.

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

College of Visual and Performing Arts

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.

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

College of Visual and Performing Arts

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

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.

University College

Michael J. Frasciello, Interim Dean
700 University Ave.
parttime.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. It enriches their lives by applying the knowledge and resources of a major university toward community issues and problems. University College acts as a bridge between the academic purposes of Syracuse University and the interests and needs of the community.

Mission

Our Mission

To provide exceptional support and services for a diverse population seeking access to Syracuse University. To act as an entry point for students, an innovator of programs, a connector across campus disciplines, a builder of bridges to the community, and a partner for business.

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, as they 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 SSuccess Initiative

The Student SSuccess 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.

Winterlude

Winterlude is a four-week session between fall and spring semesters. All classes are either fully online or off campus, occurring at alternate domestic or international locations. Taking a Winterlude class provides students the opportunity to take a course they couldn't enroll in during other semesters. Full-time SU students must receive permission from their home school/college prior to class registration. Additionally, students visiting from other colleges can, with permission from their home school, take an SU Winterlude class and transfer their credits to their own university. The Winterlude Class Schedule is available in October. Students may also search for classes in MySlice.

For more information, call 315-443-3261 or visit our web site <http://winter.syr.edu>

English Language Institute

David Lind, Director
700 University Avenue, Suite 207

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 English skills. This full-time intensive program is offered through University College. Five levels of Academic English courses are offered. Many of the students have been conditionally admitted to Syracuse University and need to increase their English proficiency before enrolling in a degree program. Completion of the level 4 (high intermediate) course will waive the university's TOEFL requirement for most undergraduate and some graduate programs.

Courses of varying length can be designed for individuals or groups with specific needs and disciplines (e.g., architecture, business, engineering, etc.). The Legal English program offered every summer is an example of this type of specialization where students can prepare before starting in an LL.M. (Master of Laws) program at an American university.

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

University College

more information about the ELI, call 315-443-8571, email elimap@syr.edu, or visit the website at eli.syr.edu.

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/) 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 315-443-3261 or visit our web site vrc.syr.edu.

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.

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.

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.

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

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)
Renewable Materials Science (HEGIS Code 0999)
Sustainable Energy Management (HEGIS Code 0115)

Wildlife Science (HEGIS Code 0107)

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

Advanced (Graduate) Certificates

Environmental Decision Making (HEGIS Code 0420) for Syracuse University students only.
Advanced Engineering Tools (HEGIS Code 0999)
Bioprocessing (HEGIS Code 0199)

Master of Forestry (M.F.)

Forest Management and Operations (HEGIS Code 0115)

Master of Landscape Architecture (M.L.A.)

Landscape Architecture (HEGIS Code 0204) with areas of study in community design and planning, cultural landscape studies and conservation, or landscape and urban ecology.

Master of Professional Studies (M.P.S.)

Environmental and Forest Biology (HEGIS Code 0499) with areas of study in applied ecology, chemical ecology, conservation biology, ecology, entomology, environmental interpretation, environmental physiology, fish and wildlife biology and management, forest pathology and mycology, plant biotechnology, or plant science and biotechnology.

Environmental and Forest Chemistry (HEGIS Code 1905) with areas of study in biochemistry, environmental chemistry, organic chemistry of natural products, or polymer chemistry.

Environmental and Resource Engineering (HEGIS Code 0999) with areas of study in environmental management, environmental resources engineering or geospatial information science and engineering.

Environmental Science (HEGIS Code 0420) with areas of study in biophysical and ecological sciences, coupled natural and human systems, ecosystem restoration, environmental and community land planning, environmental communication and participatory processes, environmental monitoring and modeling, environmental policy and democratic processes, or water and wetland resource studies.

Environmental Studies (HEGIS Code 0201) with options in biological science applications; environmental policy, planning and law; or environmental communication, culture and writing.

Forest Resources Management (HEGIS Code 0115) with areas of study in ecology and ecosystems; economics, governance and human dimensions; management; or monitoring, analysis and modeling.

Paper and Bioprocess Engineering (HEGIS Code 0999) with areas of study in bioprocess engineering, biomaterials engineering, or paper science and engineering.

Sustainable Construction Management Engineering and Wood Science (HEGIS Code 0999) with areas of study in construction management, sustainable construction and wood science.

Master of Science (M.S.)

Environmental and Forest Biology (HEGIS Code 0499) with areas of study in chemical ecology, conservation biology, ecology, entomology, environmental interpretation, environmental physiology, fish and wildlife biology and management, forest pathology and mycology, or plant science and biotechnology.

Environmental and Forest Chemistry (HEGIS Code 1905) with areas of study in biochemistry, environmental chemistry, organic chemistry of natural products, or polymer chemistry.

Environmental and Resource Engineering (HEGIS Code 0999) with an option in forest engineering and areas of study in ecological engineering, environmental resources engineering, geospatial

information science and engineering, or water resources engineering.

Environmental Science (HEGIS Code 0420) with areas of study in biophysical and ecological economics, coupled natural and human systems, ecosystem restoration, environmental and community land planning, environmental communication and participatory processes, environmental monitoring and modeling, environmental policy and democratic processes, or water and wetland resource studies.

Environmental Studies (HEGIS Code 0201)

Forest Resources Management (HEGIS Code 0115) with areas of study in ecology and ecosystems; economics, governance and human dimensions; management; monitoring, analysis and modeling.

Landscape Architecture (HEGIS Code 0204) with areas of study in community design and planning, cultural landscape studies and conservation, or landscape and urban ecology.

Paper and Bioprocess Engineering (HEGIS Code 0999) with areas of study in bioprocess engineering, biomaterials engineering, or paper science and engineering.

Sustainable Construction Management and Wood Science (HEGIS Code 0999) with areas of study in construction management, sustainable construction and wood science.

Doctor of Philosophy (Ph.D.)

Environmental and Natural Resources Policy (HEGIS Codes 0420 and 0115)

Environmental and Forest Biology (HEGIS Code 0499) with areas of study in chemical ecology, conservation biology, ecology, entomology, environmental interpretation, environmental physiology, fish and wildlife biology and management, forest pathology and mycology, or plant science and biotechnology.

Environmental and Forest Chemistry (HEGIS Code 1905) with areas of study in biochemistry, environmental chemistry, organic chemistry of natural products, or polymer chemistry.

Environmental and Resource Engineering (HEGIS Code 0999) with areas of study in ecological engineering, environmental resources engineering, geospatial information science and engineering, or water resources engineering.

Environmental Science (HEGIS Code 0420) with areas of study in biophysical and ecological economics, coupled natural and human systems, ecosystem restoration, environmental and community land planning, environmental communication and participatory processes, environmental monitoring and modeling, environmental and natural resources policy or water and wetland resource studies.

Forest Resources Management (HEGIS Code 0115) with areas of study in forest ecosystem science and applications, natural resources management, quantitative methods in ecology and ecosystems; economics, governance and human dimensions; management; and monitoring,

analysis and modeling.

Paper and Bioprocess Engineering (HEGIS Code 0999) with areas of study in bioprocess engineering, biomaterials engineering and paper science and engineering.

Sustainable Construction Management and Wood Science (HEGIS Code 0999) with areas of study in construction management, sustainable construction and wood science.

