Graduate Catalog

Fall 2026

SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE

siue.edu/academics

Table of Contents

Welcome to the Graduate School……..……5

University Policies and Requirements……..……6

Admission Policies…… ……..……6

Academic Policies…… ……...7

Degree Completion, Graduation & Commencement……...8

Tuition, Fees & Registration……...9

Student Rights…… ……11

Financial Support for Graduate Students……13

Research and Academic Facilities……...15

Degrees and Programs……..17

Accountancy……17

Applied Communication…… ……20

Art and Design…… ……22

Art Therapy…… ……..25

Biological Sciences…… ……27

Business Administration……29

Chemistry……..34

Civil Engineering…… ……36

Computer Science PhD……..40

Computer Science…… ……42

Criminal Justice Policy…… ……..45

Curriculum Instruction……49

Diversity Equity Education…… ……54

DNP Psychiatric Mental Health……57

Doctor of Nursing Practice……63

Educational Administration……...70

Educational Leadership Superintendent…… ……76

Educational Leadership……78

Electrical and Computer Engineering……..……...80

Engineering Science……..……82

English……87
Environmental Sciences……94
Forensic Sciences……96
Geography……98
Healthcare Informatics Nursing Administration……100
Healthcare Informatics……103
Healthcare Nursing Administration……106
Higher Education and Students Affairs……109
History PhD……112
History……114
Industrial Engineering……117
Instructional Technology……119
Integrative Studies……122
Kinesiology……134
Management and Information System……140
Marketing Analytics & Insights……144
Mathematics……146
MBA DNP……150
Mechanical Engineering……153
Media Studies……155
Music……157
Nurse Educator……161
Nutrition Dietetics……164
Pharmaceutical Sciences……169
Multidisciplinary Biomedical and Biological Sciences……172
Pharmacy……175
PharmD Healthcare Informatics……182
PharmD MBA……184
PharmD Pharmaceutical Sciences……186
PharmD Public Administration……188
PharmD Public Health……190
Psychology……192

Public Administration……196
Public Health MBA……..……..198
Public Health……..201
Social Work……..……..…203
Speech Language Pathology……...206
Teaching……..209
Certificates……...211
Graduate Program Directors & Faculty……...235
Course Descriptions……254

The Graduate School

The Graduate School is the central agency for organizing and supervising all graduate programs of Southern Illinois University Edwardsville (SIUE), as well as for facilitating and administering the University's research activities. View our mission and vision and goals of graduate student learning.

Beautifully situated on 2,660 acres, SIUE is a public institution offering a broad choice of degrees and programs ranging from liberal arts to professional studies. More than 13,000 students choose SIUE for the enlightening programs, engaging faculty, and convenient location just 25 minutes from St. Louis.

SIUE offers a variety of graduate programs. Courses are offered days, evenings, weekends, and online in order to accommodate those students who are actively engaged in the community as professional workers. As part of the University's commitment to make educational opportunities available to students in a variety of environments, some degree programs are offered at off-campus locations in the region. Excellent library services are available on the main campus and in the St. Louis metropolitan area; the resources of major libraries in Illinois are available through Lovejoy Library.

Southern Illinois University Edwardsville

Learn about SIUE's mission, vision, statement on diversity, accreditation, history, long-term goals, and safety. Campuses are located in Alton, East St. Louis, and Edwardsville.

SIUE awards degrees in undergraduate and graduate programs encompassing the arts, sciences, nursing, education, health, human behavior, business, engineering, and first professional degrees in dental medicine (DMD), pharmacy (PharmD), and nursing (DNP).

This Issue

The Southern Illinois University Edwardsville Graduate Catalog covers in detail questions concerning the Graduate School and applies to Southern Illinois University Edwardsville. It supersedes all previous issues of the Southern Illinois University Edwardsville Graduate Catalog.

The Graduate Catalog is not a contract or offer to contract. The Board of Trustees, University executive officers, and their agents reserve the right to change information contained herein without notice when circumstances warrant such action.

Academic Calendar

For the most up-to-date academic calendar, go to the appropriate semester at siue.edu/registrar/calendars.

Administration

Southern Illinois University Edwardsville

James T. Minor, Chancellor
P. Denise Cobb, Provost and Vice Chancellor for Academic Affairs
Jessica Harris, Vice Chancellor for Equity, Diversity and Inclusion
Miriam Roccia, Vice Chancellor for Student Affairs
Joseph Lataille, Vice Chancellor for Finance and Administration
Connie Collins, Vice Chancellor for University Advancement
Andy Benoit, Vice Chancellor for Enrollment Management

Graduate School

Christopher Slaten, Associate Provost for Research and Dean of The Graduate School
Elizabeth Cali, Interim Associate Dean of The Graduate School

College, Schools and Academic Deans

College of Arts and Sciences, Kevin Leonard, Dean
School of Business, Mario Hayek, Dean
School of Dental Medicine, Saulius E. Drukteinis, Dean
School of Education, Health, and Human Behavior, Robin Hughes, Dean
School of Engineering, Cem Karacal, Dean
Lovejoy Library, Marlee Graser, Dean
School of Nursing, Judy Liesveld, Dean
School of Pharmacy, Mark Luer, Dean

SIU System

Daniel F. Mahony, President
SIU Board of Trustees
Southern Illinois University System

Application and Admission Information

Graduate Programs

Detailed Admissions information can be found at Graduate and International Admissions and the SIUE Admissions Policy.

Prospective students can apply for admission in classified or unclassified status. Classified students are those admitted to a specific master's, doctoral, or specialist degree program; unclassified students are those who wish to enroll in graduate level courses but are not seeking a degree. All applicants, whether or not they are seeking a degree, must present evidence that they hold a baccalaureate degree or the equivalent from an accredited institution.

All students entering the University who were born on or after January 1, 1957, are required to provide Health Service with a completed Immunization Record Form and proof of immunization against measles, mumps, rubella, and tetanus/diphtheria. This requirement is in compliance with legislation enacted by the State of Illinois.

Application for admission to a degree program is a two-part process. Only after the prospective student has been admitted to Graduate School will the department of the intended degree major review the admissions file. The applicant should consult the academic unit offering the program for information on specific departmental application deadlines and program admission requirements. Some academic units may require the submission of test scores, personal interviews, personal history information, letters of recommendation, portfolios, or auditions. Applicants assume full responsibility for supplying any credentials or data required for admission.

Academic Policies and Standards

The following policies and standards are applicable to graduate students. Professional students in Pharmacy and in Dental Medicine should consult those school's policies and procedures.

Although it is the student's responsibility to understand all policies and standards, some of the most frequently used policies are highlighted below.

University Policies for Graduate Students

Graduate Student Course Loads (1L1)
The policy defines full-time, ¾ time, half-time, and less than half-time enrollment for fall, spring, and summer as well as minimums for graduate students with an assistantships.

Graduate Degree Retention Policy (1L2)
Students must maintain a cumulative GPA of 3.0 or higher while enrolled.

Graduate Student Forgiveness Policy (1L18)
Process for graduate students to seek academic forgiveness on prior grades earned in different academic program.

Teaching Responsibilities Assigned to Graduate Students (1L4)
Students with teaching responsibilities must demonstrate English fluency.

Policy on Graduate Student Matriculation, Advisement, Instruction, Evaluation and Assistantships (1L6)
This policy provides information on student conduct and grievance, matriculation, advisement, instruction, evaluation and assistantships.

Master's and Doctoral Degree Culminating Projects (1L8)
This policy explains the appropriate steps and approvals that must occur for culminating projects to be complete.

Second Majors, Specializations, and Degrees for Graduate Students (1L12)
This policy explains the requirements of earning a second major, specialization, or degree for graduate students.

Post-Baccalaureate and Post-Master's Certificate Policy (1L14)
The policy explains post-baccalaureate and post-master's certificate requirements.

Graduate Student Continuous Enrollment Policy (1L16)
Students are required to maintain enrollment each semester until all degree requirements are met.

University Policies for all Students

The following policies pertain to all faculty, staff, and students at SIUE. Students should be familiar with all policies. Listed below are the most relevant policies to graduate students.

Chapter 1 of the Policies and Procedures explains academic affairs policies, regulations, and procedures.

Chapter 1 – C – explain withdrawing from classes, prerequisites, and auditing.
Chapter 1 – F – explain graduation (time limitations, degree requirements, and second majors) and commencement.
Chapter 1 – I – explain plagiarism and class attendance.
Chapter 1 –J – explain grading, repeating courses, transfer credit, and incomplete grades.

Chapter 3 of the Policies and Procedures explains student affairs and services policies, regulations, and procedures.
Chapter 3 – A – explains residency.
Chapter 3 – C – explains student code of conduct, student academic code, and student grievance code.

Chapter 4 of the Policies and Procedures explains student fee/charge and financial assistance polices, regulations, and procedures.
Chapter 4 – A – explains guidelines for graduate assistantships
Chapter 4 – B – explains student employment
Chapter 4 – C – explains student fees and mandatory health insurance
Chapter 4 – D - explains tuition installment plans
Chapter 4 – F – explains summer tuition waivers for former graduate assistants

Degree Completion, Graduation and Commencement

Degree Completion

Degrees are awarded at the end of each semester and at the end of the summer session. In order to qualify for a diploma, a student must (1) file an application to graduate, (2) complete all course requirements of a degree program, (3) have on file in the Graduate Records Office positive results of an exit requirement completed by the last day of classes in the graduating term, (4) turn in the thesis (if a thesis is a program requirement), and (5) satisfy all other program requirements such as internship, practicum, or foreign language requirements where appropriate. The date of a degree shall be the end of the semester or summer session in which the Graduate Records Office is able to document all of the above.

The Graduate Records Office will clear for graduation those students who have completed course requirements or who are registered in final courses and who have on file the items listed above. Clearance for graduation consists of formal notification to the student and academic unit that, with the recording of grades for certain stipulated courses and maintenance of appropriate grade-point average, a student is entitled to a diploma.

Students should refer to the Graduation Policy to view the requirements for earning a master's degree, second major, transfer credit, specialist degrees, doctoral degrees, and professional programs.

Graduation

Every student must apply for graduation in order to graduate, regardless of whether you wish to participate in commencement (graduation ceremony) or not. Graduation information is available in the Registrar's Office as well as in the graduation application instructions.

Commencement

The University holds Commencement exercises each fall and spring term. A student must have completed all requirements for a degree or must be enrolled in courses which will complete degree requirements in order to participate in Commencement exercises. A student completing degree requirements in the summer term may participate in the preceding spring Commencement exercise provided that s/he has submitted an application for graduation by the first day of the spring term and that no more than 9 credit hours are required for degree completion beyond spring enrollment. Summer degree recipients who did not participate in the preceding spring commencement may participate in the following fall Commencement exercises.

Once a student has participated in Commencement exercises s/he will not be eligible to participate in future ceremonies for the same degree.

Tuition, Fees and Registration

The tuition and fees charged to students are established by the University Board of Trustees and are subject to change without prior notice whenever conditions make such changes necessary. Tuition and fees, as approved by the Board of Trustees, are published on the University's Paying for College website.

In addition to fees noted on the University's tuition and fee schedule, a student is subject to certain other charges such as graduation fees, transcript fees and course specific fees.

Graduate students who have completed all required coursework but are pending completion of the final exit project are required to enroll in UNIV 500 for a fee of $50 per semester to maintain compliance with the Continuous Enrollment Policy, 1L16. UNIV 500 enrollment allows students completing their exit requirement to maintain active student status while accessing campus resources including Lovejoy Library, Blackboard, SIUE email, the Student Fitness Center, and Health & Counseling Services.

Financial Responsibility

Students at SIUE will incur certain financial obligations. Although they may be eligible for various forms of financial assistance, the final responsibility for those financial obligations is the student's. These financial obligations constitute an educational loan to assist in financing the student's education and are not dischargeable under the United States Bankruptcy Court. The University has an installment payment plan designed to make payment of tuition, fees, and other charges as convenient as possible. Failure to meet financial obligations will have serious consequences: late fees will be applied to past due amounts and transcripts and diplomas will not be issued. Continued failure to pay a past due debt may result in the debt being referred to a collection agency. In that event, collection costs may be added to the student's account. For information regarding the Installment Payment Plan's policies, procedures, due dates and more, please visit the Bursar's website.

Residency Status

Students' residency status affects two primary considerations: tuition and financial assistance. Ordinarily, determination of residency status is made by the Office of Admissions Review and Processing from evidence furnished on the application for admission to the University. If such evidence is insufficient, or if records establish that students do not meet the requirements for resident status as defined in the following regulations, non-resident status is assigned.

Definitions and Conditions

Adults, to be considered residents for purposes of tuition, must have been bona fide residents of the State of Illinois for at least six consecutive months immediately preceding the beginning of any term at the University and must continue to maintain a bona fide residence in the state. Adult students who have a parent or both parents maintaining bona fide residence in the state and who reside in the parental home or elsewhere in the state are considered resident students.

Persons under 18 years of age are considered minors. The residence of minors shall be considered to be and to change with that of the parent(s) or legal or natural guardian(s). Parents or legal or natural guardians will not be considered residents of the state unless they maintain a bona fide and permanent place of abode within the state.

If minors are emancipated, are completely self-supporting, and reside in the state, they shall be considered residents, even though the parents or guardians may reside outside the state. Marriage or active military service shall be regarded as effecting the emancipation of minors for the purpose of this regulation.

The term bona fide residence refers to the true, fixed, and permanent home and place of habitation to which individuals intend to return after a temporary absence. Evidence used to determine bona fide residence includes such items as voter registration, place of filing tax returns, proof of property ownership or year-'round residence, driver's license, automobile registration, or place of employment.

Nonresident students married to residents of the state may be classified as residents while residing in the state. The spouses through whom students claim residence must demonstrate resident status according to the requirements that apply to all students seeking resident status.

Students who are not citizens of the United States of America, to be considered residents for tuition purposes, must either be married to residents or have permanent resident status with the United States Immigration and Naturalization Service, and must comply with all other applicable regulations to establish resident status. Students considered residents for tuition purposes may need to meet additional criteria in order to be eligible for federal student financial assistance.

Persons actively serving in one of the armed forces of the United States, stationed and present in the State of Illinois in connection with that service, and submitting evidence of such service and station, shall be treated as residents while stationed and present in Illinois. If the spouses or dependent children of such members of the armed forces also live in the state, similar treatment shall be granted to them.

Persons actively serving outside the state in one of the armed forces of the United States are considered residents only if they were residents of the state at the time of entry into military service. Those separated from active military service are considered residents of Illinois immediately upon separation under the following conditions:

1. they were residents of the state at the time of entry into military service, or
2. they were treated as residents while in the military by attending school at this University while stationed within the state, or
3. they resided within the state for a period of six months after separation and immediately prior to the term for which they claim residency.

Persons incarcerated in a state or federal place of detention within the State of Illinois will be treated as residents for tuition assessment purposes while remaining in that place of detention. If bona fide residence is established in Illinois upon release from detention, the duration of residence shall be deemed to include the prior period of detention.

The spouses and dependent children of all employees on appointment with the University are considered resident students for purposes of tuition assessment during the term of such appointment.

Students may have their residency status reclassified, on the basis of additional or changed information, by filing a written request for review at the Service Center. The written request for review must be filed within 30 school days of the day on which classes begin for the term for which a residency change is requested.

A student seeking reclassification from non-resident to resident status is liable for the tuition and fees assessed, but, if granted, the change of residency and any tuition change shall apply for the term in which reclassification occurs. In the case of a student classified as a resident who is reclassified as a non-resident, the change to nonresident status and adjustment of tuition shall apply for the term following the reclassification. If the University has classified a student as a resident on the basis of false or falsified documents furnished by the student, the reclassification to non-resident status shall be retroactive to the first term during which residence status was based on these incorrect documents. The student also may be subject to sanctions under student conduct guidelines.

Appeal of Residency Review Decisions

A student who is dissatisfied with the ruling in response to a written request for review of residency status may appeal the ruling to the Vice Chancellor for Student Affairs by filing a written request with that office within 20 days of the notice of the first ruling. Appeals should be sent to Campus Box 1058, SIUE, Edwardsville, IL 62026-1058.

Registration

Specific registration schedules are published on the Registrar’s website. Online registration is available to students through CougarNet. Information regarding adding, dropping, withdrawing and refunds can be found on the Registrar's website. Information about course registration/enrollment and grades, repeats, and GPA can be found on the Student Records website.

Student Rights

Southern Illinois University Edwardsville maintains fair and reasonable practices in all matters affecting students: the delivery of educational programs, provision of support services, and timely resolution of disciplinary matters and the handling of grievances. In addition, the University endorses the basic principles of the codes of ethics issued by the American Association of Collegiate Registrars and Admissions Officers and the National Association of College and University Business Officers.

Information regarding fair practices can be obtained from the Office of the Provost and Vice Chancellor for Academic Affairs, the Office of the Vice Chancellor for Student Affairs, and the Office of Equal Opportunity, Access & Title IX Coordination.

Chapter 3 of the University Policies and Procedures explains student affairs and services policies, regulations, and procedures. This section includes information about student rights and conduct, student legal services, publications, release of information, and disclosure of private mental health.

Affirmative Action and Equal Opportunity

Southern Illinois University Edwardsville (SIUE) is committed to affirmative action and equal opportunity for all persons as regards to its academic and educational programs and services offered to the University Community. SIUE administers its activities, programs, services, and educational and employment opportunities without regard to age, color, disability, marital status, national origin, race, religion, sex, sexual orientation, veteran status, or other prohibited categories.

SIUE complies in letter and spirit with appropriate federal and state legislation prohibiting discrimination including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments Act of 1972, The Americans with Disabilities Act of 1990, and the Illinois Human Rights Act.

Anyone seeking more information concerning SIUE's Affirmative Action Plan and equal opportunity should contact the Assistant Chancellor for Institutional Compliance, Room 3310, Rendleman Hall, Box 1025, Edwardsville, IL, 62026-1025, (618) 650-2333.

Privacy and Nondisclosure

Under the Family Educational Rights and Privacy Act (FERPA), all students have the right to inspect and review their official University records in accordance with provisions of the aforementioned act and within the University guidelines. Inquiries regarding the Family Educational Rights and Privacy Act should be directed to the Office of the Registrar.

Religious Observance Act

The University Religious Observances Act (110 ILCS 110) prohibits public institutions of higher education from discriminating against students for observing religious holidays in regard to admissions, class attendance and scheduling of examinations and work requirements. A student who believes that he or she has not been reasonably accommodated may seek redress directly with the professor of the class or supervisor. If the grievance is not resolved, the student may file a student grievance pursuant to the Student Grievance Code. Personnel matters will be referred through the channels of the unit in which the student is employed. Under the Act, "religious observance" or "religious practice" includes all aspects of religious observance and practice, as well as belief.

See the accommodation of student religious observances policy.

Sexual Harassment Policy

Sexual harassment will not be tolerated at Southern Illinois University Edwardsville. It is prohibited by law and conflicts with the policies and interests of the University. Therefore, no member of the University community shall engage in sexual harassment. Students may receive a copy of the University's Sexual Harassment Policy from the Office of Equal Opportunity, Access & Title IX Coordination, Room 3316, Rendleman Hall, or review the policy online.

Student Conduct Code, Student Academic

Code

Students enrolling in the University assume responsibility for conduct compatible with the learning environment of the University. Students are expected to be familiar with the Student Conduct Code and the Student Academic Code. These documents describe the University's expectations for student social and academic conduct, the process utilized for adjudicating alleged violations, and sanctions that may be imposed for violation of the standards.

Violence Prevention

The Illinois General Assembly has recently adopted new statutory requirements affecting all institutions of higher education in the State of Illinois relating to campus violence prevention. Specifically, the Illinois Campus Security Enhancement Act of 2008 mandates all institutions of higher education to create a campus violence prevention plan and training program. In response to this statutory mandate, Southern Illinois University Edwardsville ("University") has developed a campus violence prevention plan which sets forth violence prevention strategies, measures, policies and programs for the purpose of preventing violence and enhancing safety on campus. This plan incorporates the statutory requirements which include the plan itself, the formation of a violence prevention committee and training/notification procedures for the campus community.

Financial Support for Graduate Students

There are several types of financial support for graduate students regularly administered through the Graduate School, and to remain eligible for assistance under federal, state and institutional programs, students must maintain satisfactory progress toward degree completion and satisfy the requirements of the Graduate School's retention policy.

Eligibility for most federal and state student aid programs requires that a graduate student be a U.S. citizen or eligible non-citizen; be admitted to a graduate degree program in classified status; be enrolled for at least 5 semester hours each term; maintain satisfactory academic progress; owe no refund on federal grants and have no current default on federal student loans. In addition, male students between the ages of 18 and 25 must be registered with Selective Service if not currently serving in the Armed Forces. Since most international students do not meet citizenship requirements for aid programs, these students should contact the Office of International Affairs for additional information.

Graduate students applying for aid must submit the Free Application for Federal Student Aid (FAFSA) by March 1 each year so that aid can be credited on the first fall semester bill in July.

Loans

Southern Illinois University Edwardsville participates in the William D. Ford Direct Loan program. Guaranteed unsubsidized federal student loans are available to graduate students to assist with educational costs. Students must complete and submit a FAFSA application to be eligible for student loans. For more information about loans at SIUE, contact the Office of Student Financial Aid.

Graduate Assistantships

Graduate assistantships at the master's, specialist, and doctoral levels are available in a number of academic, service, and research units. Current assistantship postings as well as responsibilities of graduate assistants can be found on the Graduate School's website.

Competitive Graduate Awards (CGA)

Applicants must be new graduate students, accepted in a master's degree program. Learn more about CGA.

Graduate Scholar Award (GSA)

The GSA award provides a tuition waiver for qualified master's students. Learn more about GSA.

Student Employment

Part-time student employment is available at SIUE under both the regular student employment program and the Federal Work Study program. SIUE also assists students in finding off-campus employment through the Job Locator and Development Program.

The Federal Work Study Program is designed to assist qualifying students in securing employment and helping to defray costs. These students are awarded federal funds that pay some of their wages, and the unit in which they work pays the remainder. Federal Work Study eligibility is awarded as part of the total aid package; students must also indicate on their FAFSA they are interested in Work Study.

Veterans' Educational Benefits

Veterans applying for benefits can obtain necessary forms from the Veterans' Administration or through Veteran Services. Applicants must supply a copy of the Veterans' DD 214 (Report of Separation from the Armed Forces) and certified proof of any dependents. The marriage certificate and/or birth certificates of children will meet this requirement. The enrollment certification will be completed by the Veterans' Certification Section and forwarded to the Veterans' Administration Regional Office. Benefits are determined by the length of active duty in service, number of dependents, enrollment status, incentives awarded by the branch of military service in which the veteran served, and other factors. Since benefits for nontraditional courses may vary, students enrolling in courses that meet in nontraditional formats should contact the Veterans' Certification Section for specific information.

Veterans who qualify for the Illinois Veterans' Grant (IVG), which covers tuition, mandatory fees,

application, and graduation fee, may use it concurrently with the Veterans' Administration benefits. The IVG is processed through the Illinois Student Assistance Commission (ISAC), which will send qualifying veterans a Notice of Eligibility.

Veterans must be enrolled in a degree program and making satisfactory academic progress to remain eligible for VA benefits. No benefits are received for grades of W, WP, WR, and AU; however, graduate students may receive benefits for a deferred grade (DE) in a thesis or research course.

Diversifying Faculty in Illinois (DFI)

The Diversifying Higher Education Faculty in Illinois (DFI) program administered through the Illinois Board of Higher Education, provides awards of up to $14,000 for a full-time graduate student. The Award is renewable for one year for master's students and up to three years for doctoral students, contingent upon satisfactory academic progress. An applicant must be an Illinois resident, from an underrepresented group (African American/Black, Hispanic American, Asian American, Native American or Alaskan Native), above average academic ability, and must demonstrate financial need to be considered for this award. An award recipient must agree to actively seek and accept when offered a teaching or non-teaching full-time appointment at an Illinois post-secondary educational institution or at a state office, equal to the number of years for which he or she receives the DFI fellowship.

Illinois Student Assistance Commission (ISAC)

The Illinois Student Assistance Commission (ISAC) is a free resource to students in Illinois that helps to navigate the challenges of attending college.

Research and Academic Facilities

The faculty at SIUE engage in a wide range of research and sponsored projects. Most of the research programs provide special opportunities for graduate students to further their education. Additionally, these activities provide challenging intern and practicum experiences for graduate students through affiliation with businesses in the greater St. Louis area.

Lovejoy Library

Lovejoy Library offers assistance to students, faculty, and staff, and acquaints users with procedures for locating information and resources for papers, theses, or other research projects. The library's resource-sharing agreements make it possible for University students to use other academic, public, and special libraries in the St. Louis area. Electronic access also is provided to the collections of other libraries in Illinois and throughout the world. Materials from these collections may be obtained through interlibrary loan. Visit the Lovejoy Library website for more information.

National Corn-to-Ethanol Research Center

The National Corn-to-Ethanol Research Center (NCERC) located in University Park of SIUE is the only public entity of its kind.

The NCERC is Unique in that it is the only facility in the world to house the following all under one roof:

- Analytical Laboratory
- Fermentation Laboratory
- Pilot Scale Ethanol Production Process
- Workforce Development Training Programs

In addition to the installed processes, the layout and piping design of NCERC allow adequate floor space and utilities to support either additional or substitutionary equipment and systems.

Science, Technology, Engineering and Mathematics Center (STEM)

STEM Research, Education and Outreach (STEM Center) offers research and evaluation services for STEM education and outreach programs targeting K-12 and public audiences, and evaluation plans that integrate research on learning and meet agency requirements for broader impacts and dissemination of project findings to stakeholders. The STEM Center has expertise in K-12 teaching, curriculum development, instructional design, and outreach to schools and teachers, including underserved populations. We also have a comprehensive evaluation strategy for assessing undergraduate research programs. Additionally, the STEM Center has experience creating digital Citizen Science initiatives and in providing support and training in communicating science through new and social media.

School of Business

Services include:

- SIUE Center for Business Analysis
- International Trade Center
- Small Business Development Center

College of Arts and Sciences

Department of Chemistry
Academic User Rate: $50/hr.
Industrial User Rate: $186/hr.

- NMR spectra, our faculty performs service
- X-Band EPR at 298 K
- X-Band EPR at 77 K
- IR-Microscope
- Raman Microscope
- EPR=electron paramagnetic resonance spectroscopy

School of Dental Medicine

Community Dentistry Program

Services include:

- Give Kids a Smile
- National Children's Dental Health Month
- Madison County Oral Health Education Program
- Oral screenings and oral health education in the community
- Special Needs Patient Care
- Geriatric Dentistry
- Dental Clinic

SIUE Early Childhood Center

The Early Childhood Center (ECC), located on the beautiful campus of Southern Illinois University Edwardsville (SIUE), provides full-day, year round early childhood care and education for the children of students, faculty, staff, and others in the University community, ages two through five.

East St. Louis Center

SIUE ESL Charter High School. The mission of the SIUE East St. Louis Charter High School is to prepare students, who are career- and college-ready, upon graduation. To achieve this mission, the school and its staff will positively impact the educational and economic lives of East St. Louis, IL.

SIUE Head Start / Early Head Start. The SIUE Head Start/Early Head Start Program is a nationally recognized quality early childhood education program that promotes school readiness for children and self-sufficiency for families. Services are available to St. Clair County expectant parents and families of children ages six weeks to five years old.

ESL Upward Bound Math & Science. The Upward Bound Math and Science Program is designed to prepare participants for post-secondary education and motivate their exploration of science, mathematics and related educational professions.

ESL Upward Bound EC and Upward Bound BEM. The Upward Bound Programs (EC & BEM) are committed to developing year-round education programs which will excite, motivate and prepare selected high school students from the program's target areas. The quality services provided will prepare the students for successful high school completion and entrance into post-secondary programs.

School of Education, Health & Human Behavior

Services include:

- Speech-Language-Hearing Clinic
- Attention & Behavior Clinic at SIUE
- Data Consultants

School of Nursing

SIUE WE CARE Clinic

SIUE WE CARE clinic is a nurse-managed primary care clinic sponsored by Southern Illinois University Edwardsville School of Nursing to provide care to diverse clients in the metro-east. The professional nursing staff consists of advanced practice nurse practitioners and clinical nurse specialist faculty.

School of Pharmacy

Express Scripts Drug Information and Wellness Center

The Wellness Center:

- Assists pharmacists to attain knowledge and skills to enable them to deliver the best pharmaceutical care to their patients
- Improves the health education of patients in the community
- Focuses on prevention of disease through screenings and health promotion through education

Accountancy

Admission Requirements

Admission into the MSA program is selective; the program, at its discretion, may request GRE or GMAT test scores, other supporting documents, or interviews that demonstrate the applicant's ability to successfully pursue a Master of Science in Accounting degree. Meeting the minimum admission requirements does not guarantee acceptance into the program.

Admission Criteria:

- Successful completion of a bachelor's degree prior to enrollment
- Minimum cumulative GPA of 2.50 in undergraduate coursework and minimum cumulative GPA of 3.0 in any graduate coursework (on a 4.0 scale)*
- Grades in quantitative courses that indicate a high probability of success in completing the program**
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent

*Applicants with a cumulative GPA of 2.75 or lower in undergraduate coursework may be required to submit recent GMAT or GRE scores after an initial review of the application.
**Review of quantitative courses will be conducted by the MSA program director.

To Apply:

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcript
- Personal history information or a current resume

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants with undergraduate degrees in majors other than accounting are welcome and can satisfy the graduate course prerequisites by completing appropriate undergraduate accounting courses.

Review the SIUE Admissions Policy for more information.

Undergraduate Prerequisite Courses

Applicants can satisfy the program's prerequisite requirements by completing the following admission prerequisite courses, or their equivalent, with a GPA of 2.7 or better:

- ACCT 200 or 524
- ACCT 301
- ACCT 302
- ACCT 303
- ACCT 311
- ACCT 312
- ACCT 315
- ACCT 321

These courses do not carry credit toward the MSA. Prerequisite courses taken prior to admission to the MSA program ordinarily must have been taken within six years of the date the applicant is admitted. An MSA student undertaking prerequisite courses may be terminated from the program if the student's GPA calculated over all prerequisite courses taken at SIUE falls below 2.7 for more than one semester, the student receives a grade of less than C in any prerequisite course, or the student fails to make satisfactory progress.

Also Available
Accelerated Online Master of Science with an Accountancy Specialization

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Program of Study

The MSA requires completion of 30 semester hours of coursework beyond the prerequisite courses. No more than 12 hours of 400-level coursework may apply toward elective requirements of the MSA.

Specific courses, or their equivalents, used to satisfy a student's undergraduate degree requirements may not be used by that student in satisfying the program or elective requirements of the MSA. No more than six elective hours taken outside the School of Business will count toward the MSA. At the discretion of the program director, a maximum of six semester hours of elective requirements may be satisfied by transfer of credit from other institutions. For transfer credit, a grade of B or better must have been earned in the course. Ordinarily, business courses may be transferred only from institutions accredited by the Association to Advance Collegiate Schools of Business (AACSB). Courses transferred may not have been used to satisfy requirements for any other degree.

Students without an undergraduate accounting degree from an AACSB accredited school may have to complete up to 18 hours of accounting or business foundation coursework in addition to the 30 hours of graduate credit hours to complete the normal MSA program requirements. The program director will determine deficiencies and additional foundation coursework required after evaluating prior student courses completed. The evaluation will consider the area of study, grades received in those courses, the time since completion of the prior coursework, and other evidence of relevance to accounting and business knowledge. Determinations of deficiencies made by the program director are final.

Following completion of all admission requirements, the program director and advisor will design a program of study tailored to each student. The student must complete 30 credit hours of MSA program credit (which excludes all admission prerequisites and foundation coursework requirements) described as follows:

1. **Program Courses (18 hours):** ACCT 580 Accounting Research (preferably taken in the last term of study) and five courses from the following: ACCT 401, 421, 431, 441, 490, 510, 531, 541, 550, 551, 552, 553, 556, 557, 561, 565, 567, 581, 596, 597
2. **Elective Courses (12 hours):** Electives may be accounting or other SIUE School of Business graduate courses except for ACCT 524. At the discretion of the program director, up to six hours of credit may come from SIUE graduate programs outside the SIUE School of Business or from transfer credit.

To remain in good standing in the MSA program, students must maintain a 3.0 (B) GPA in all courses taken in the MSA program (excluding prerequisite courses) and in all program and approved elective courses. Students who are not in good standing for more than one semester may be terminated from the program.

Degrees Available at SIUE

- Master of Science in Accountancy (MSA)

Combined Degrees

- Early Entry MS in Accountancy

Specializations

- Business Analytics
- Taxation

Post-Baccalaureate Certificate

- Taxation

Graduation Requirements

To graduate with an MSA, students must complete all program requirements and have a 3.0 GPA in all courses taken in the MSA program (excluding prerequisite courses) and in all program courses and approved elective courses. Only program and elective courses taken within a six-year period preceding the completion of all requirements for the MSA will count toward the degree. Foundation courses taken to provide the common body of knowledge in business must be taken within an eight-year period preceding the completion of all requirements for the degree.

A significant research project resulting in a written report and a final examination based on the approved program of study are required of each student to be awarded the MSA. Both requirements will be completed as part of the requirements for ACCT 580. A satisfactory grade must be received on both the research report and final examination for

completion of the degree requirements. The entire program is designed to place emphasis on critical thinking, research, and problem-solving. In ACCT 580 the student demonstrates their ability to research an issue independently, think critically and educate other professionals about an issue, its implementation and implications.

Ordinarily, the final examination will be administered as part of ACCT 580. The examination will include questions related to the students' program of study, their work in ACCT 580, and their research projects. Some parts of the final examination may be common to all students, while other parts will relate to the individual programs of study of the specific student. Examination committees will consist of the instructor of ACCT 580 and at least one other member of the Graduate Faculty of the School of Business appointed by the program director. For a student to pass the final examination, the majority of members of the examination committee must concur that the student should receive a passing grade.

Students who do not pass the MSA final examination on the first attempt will have one additional opportunity to complete the final examination. A student who fails the final examination on the second attempt will be required to complete additional coursework specified by the program director before attempting the final examination a third time. Students who do not pass the final examination after three attempts will be terminated from the program.

Review the graduation policy for more information.

Business Analytics

Students may opt to complete a specialization in business analytics. To complete the specialization, MSA students must complete eight graduate courses including ACCT 565, ACCT 580, and three additional ACCT courses, plus satisfy the following business analytics requirements:

- One course in Quantitative Methods (MBA 521)
- One course in Information Fundamentals (ACCT 441, ACCT 561 or ACCT 567)
- CMIS 566 – Introduction to Business Intelligence and Analytics
- One elective from the following courses: CMIS 527, CMIS 562, CMIS 563, CMIS 564
- CMIS 567 - Business Analytics Capstone (3)

Also Available
Accelerated Online MSA with a Business Analytics Specialization

Taxation

MSA students may opt to complete a specialization in taxation. To complete the tax specialization, MSA students must complete four tax courses as follows:

a. Required: ACCT 550 Tax Research

b. Choose three of the following:

- ACCT 552 State and Local Tax
- ACCT 553 Taxation of Flow-Through Entities
- ACCT 556 Personal Tax Planning
- ACCT 557 Corporate Taxation

Any substitutions must be approved by the MSA program director. In addition to the required tax courses, students completing the tax specialization must complete the remaining MSA requirements, which include ACCT 580, at least one more accounting elective and four other accounting or non-accounting electives.

Also Available
Accelerated Online MSA with a Taxation Specialization

Applied Communication

Admission Requirements

1. Graduate School application and $40 fee
2. Submission of all postsecondary academic transcripts
3. Successful completion of a bachelor's degree prior to enrollment
4. Minimum undergraduate GPA of 2.75
5. International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
6. Statement of Purpose: Submit a typed statement (of at least 500 words) about the academic and professional goals the applicant plans to attain through their work in the graduate program
7. Submit two letters of recommendation that discuss the applicant's potential for graduate-level academic work, leadership and interpersonal skills. (If the student is a current student in, or recent graduate of SIUE's Department of Applied Communication Studies, two Reference Forms for Use by Current SIUE Students may be submitted in lieu of the letters of recommendation.)

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions Office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants who do not have an undergraduate degree in applied communication studies or a related field will be required, if admitted to the program, to demonstrate a knowledge of basic communication theory before enrolling in any 500-level classes. This demonstration of proficiency may be accomplished by completing, with a grade of B or better, either ACS 330 Theories of Communication, or proficiency examinations based upon the content of this course. Please contact the Department of Applied Communication Studies for information about the proficiency examination procedures.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 33 credit hours
- Visit the Paying for College website for detailed tuition information

Curriculum

Students must complete at least 33 semester hours for this degree. A foreign language is not required. With approval of the student's advisory committee, up to three hours of graduate-level coursework from outside the applied communication studies curriculum, up to three hours of independent study credits, and up to three hours of 400-level courses, may be applied toward the minimum of 33 hours.

All students admitted to the program are required to enroll in the **program core**, which consists of two courses (six hours total):

- ACS 500 Communication Theory and Qualitative Research Methods
- ACS 501 Communication Theory and Quantitative Research Methods

The core courses must be completed with a minimum grade of B the first time they are offered after the student is admitted. Students who fail to meet this stipulation will be restricted from enrolling in any other 500-level courses until the program core requirement is met. Students are also required to declare an area of specialization and complete three required courses in their respective specialization.

Responsibility for the development of the remainder of the student's program of study rests with the student and student's advisory committee. The Department of Applied Communication Studies offers a variety of courses designed to complement the student's academic and professional interests. This graduate program also offers opportunities for both research and practice of applied communication principles and strategies.

Students may choose either a thesis or a non-thesis plan of study. Students who select the thesis plan (thesis or applied project) must declare their intentions by the time they have completed 18

semester hours of graduate work. They will complete a minimum total of 27 hours of coursework. They will confirm their ability to conduct research in applied communication studies by submitting a thesis or applied project for six semester hours of credit in ACS 598 or ACS 599. The oral defense then provides a supplemental assessment of the student's performance on the written portion of the thesis, or the final product of the project.

Students who select the non-thesis plan will complete a minimum total of 33 hours of coursework. Students will confirm their ability to conduct research in applied communication studies through the research projects and papers they complete during their coursework.

Degrees Available at SIUE

- Master of Arts in Applied Communication Studies

Specializations Available

- Applied Communication Generalist
- Public Relations

Graduation Requirements

The comprehensive examination is administered during each student's final term of coursework. For students following the thesis plan, the examination is oral and focuses primarily on a defense of the thesis or applied project, but may also cover the planned program.

For a student electing the non-thesis plan, the examination, which comprises both written and oral elements, covers content from both the required core courses and the individually planned program. The written examination is composed of two sections. One section focuses on communication theory and research methodology, and the student must successfully answer one item on theory and one on research. The other section of the written examination focuses on the individual program of study. The student must respond successfully to two items from this section, in which a choice is offered among items prepared by the individual's advisory committee. The oral component then provides a supplemental assessment of the student's performance on the written portion of the examination.

Review the graduation policy for more information.

Applied Communication Generalist

Students are required to complete three courses in their respective areas of emphasis. These courses include:

- ACS 520 Seminar in Interpersonal Communication
- ACS 530 Survey of Health Communication and Research
- ACS 540 Survey of Organizational Communication and Research
- ACS 550 Seminar in Public Relations

The specialization in applied communication generalist focuses on the dynamic ways in which various types of messages are formulated, exchanged, and interpreted in diverse contexts. Students are offered numerous opportunities for advanced examination of and reflection on the social and cultural influences on interactions and communication within a variety of contexts including interpersonal, organizational, and healthcare.

Public Relations

Students are required to complete three courses in their respective areas of emphasis. These courses include:

- ACS 550 Seminar in Public Relations
- ACS 551 Nonprofit Public Relations
- ACS 552 Corporate Social Responsibility

This specialization provides students with a broad curriculum, grounded in theory, research and application, and is designed to enhance the knowledge, skills and abilities necessary for further development as leaders of the public relations profession. Students in this specialization have numerous opportunities to examine and apply public relations strategies and tactics pertaining to a variety of business and nonprofit settings. The specialization prepares students with various career goals, including students who want to update their knowledge and skills as they advance on a public relations industry professional career track and students who intend to pursue a doctoral degree after completing their master's.

Art and Design

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA of 2.50
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Submit three letters of recommendation by those familiar with your current artwork
- Provide a personal statement in the form of a letter that includes an artist statement, including the below information, in approximately 500 words:
  - Indicate professional aspirations and more immediate objectives that you will pursue while in graduate school
  - Indicate which of the following is your primary area of focus: metalsmithing, ceramics, sculpture, printmaking, photography, painting, or drawing
- Submit a current resume or CV
- Submit a digital portfolio (PPT or PDF) of 20 images

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions Office with questions regarding the application submission process at graduateadmissions@siue.edu.

A committee consisting of the graduate studio faculty who offer MFA classes will review the applications. Letters of acceptance will be mailed approximately one month following the deadline, initially by the Graduate Admissions Office, with a follow up letter from the Department of Art and Design.

Persons with deficiencies may enroll as unclassified graduate students for a limited time. Upon completion of the deficiencies, the student submits a portfolio of recent work to the graduate faculty before admission to the program is granted.

So that the MFA program can achieve a broader perspective, students who receive their undergraduate art degrees at institutions other than SIUE will be given higher priority in acceptance for admission.

Students pursuing the MFA at SIUE are required to explore additional electives in other studio areas in order to inform and enhance their personal work (see Program of Study). An open dialogue with materials and media is encouraged, as is refining one's singular medium interests. With this said, students must apply to a single area of studio concentration and work to develop their interests in concert with their studio advisor. Applications for the MFA should be limited to one studio concentration at the time of applying.

Review the SIUE Admissions Policy for more information.

Application Deadline

It is the candidate's responsibility to ensure the application, transcript(s), letter and portfolio arrive at SIUE on time. The deadline for admission is February 1 of the preceding spring semester. Additional applications will be considered after this date on a space-available basis.

Required Credit Hours/Tuition and Fees

- 60
- Visit the Paying for College website for detailed tuition information

Curriculum

The full-time student should expect to spend a minimum of three academic years in residency to complete the MFA. The program is based on the individual's area of interest and undergraduate training, and is jointly planned by the student, a committee of the graduate faculty and a professor who serves as advisor to the student in their principal studio area.

Total 60 hours (at least 30 at the 500-level)

- (21-30 hours) Major Studio Area
- (9 hours) Art History
- (6-15 hours) Electives (outside major studio area)
- (3 hours) ART 505 Seminar
- (3 hours) ART 506 Professional Practices
- (3 hours) ART 441 Drawing
- (3 hours) ART 599A Thesis
- (3 hours) ART 599B Thesis

First-Year Review

At the end of their first year, each graduate student goes through a pass/fail/probation evaluation by a three-person committee comprised of studio faculty members outside of the student's discipline who are randomly selected by the Art and Design office. In addition, student's academic status in their art history course(s) will be factored into the evaluation for the first year. The evaluation consists of a presentation by the student of their progress for the year, followed by a question and answer period. Although the process is similar in structure to the final orals, it is not as rigorous and is designed to measure and inform students as to where they stand in terms of the department's expectations for the first year.

All evaluations by the committees ultimately go through the area head of the student's discipline before final decisions are made. If a student passes, they move on to committee selection. If a student fails, they are asked to leave the program. If a student is placed on probation, they receive a recommendation for improvement and are evaluated by the committee again at the beginning of the fall semester of their second year. At this point a student either passes or fails.

Mid-Course Review

Prior to the beginning of a student’s fourth term, or upon completion of 30 hours of graduate credit (whichever comes first), the candidate will undergo a rigorous mid-course academic review. This is conducted by the candidate’s MFA Committee, which should consist of at least three members of the graduate faculty, at least one of whom must be a specialist from the student’s major studio area.

The mid-course review consists of an oral interview in which the candidate shall present the creative work completed since arriving at SIUE. In addition, the candidate shall present evidence of his/her knowledge of art history and other material deemed pertinent by the committee for successful completion of the degree.

Additional evidence will also be submitted in the form of written essays, composed in response to questions from members of the candidate’s graduate committee who will evaluate the candidate’s answers for clarity of expression, as well as for correctness of factual detail.

Thesis and Thesis Exhibition

The final examination for the MFA includes both written and oral forms, including a thesis defense. During their final year, all candidates for the MFA in art with a concentration in studio art must complete six semester hours of thesis. The full first draft of the thesis, a written exposition of the candidate’s artwork, is written in ART 599A in consultation with the candidate’s committee. In ART 599B, the candidate designs and mounts the thesis exhibition. Upon acceptance of the written thesis, the student’s graduate committee and other members of the graduate faculty are invited to be present for the final oral examination. The candidate is expected to defend the thesis and exhibition, and to show knowledge of the general area of investigation and related areas of art and art history. One piece of artwork from the thesis exhibition, chosen by the candidate in consultation with the thesis committee, is retained by the Department of Art and Design for the permanent art collection of the SIUE University Museum.

Degrees Available at SIUE

- Master of Fine Arts in Art, Studio Art Concentration

Graduation Requirements

The final examination for the MFA includes both written and oral forms, including a thesis defense. Upon acceptance of the thesis, the student's graduate committee and other members of the graduate faculty are invited to be present for the

final oral examination. This examination is typically scheduled during or after the thesis exhibition. The candidate is expected to defend the thesis and exhibition, and to show knowledge of the general area of investigation and related areas of art and art history.

Review the graduation policy for more information.

Art Therapy

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment in one of the following:
  - Art Studio
  - Art Education
  - Psychology
  - A related field
- Minimum GPA of 2.50
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- 12-15 digital images of personal artwork
- Statement of Intent (300-500 words) that answers the below prompts. Cite your sources using an APA referencing format.
  - What experiences led you to pursue a degree in art therapy counseling
  - After reflecting on SIUE's art therapy counseling program's mission statement, discuss how you understand the term systemic oppression within mental health and wellness. Describe what you have learned about the interplay of your own values, biases, and prejudices. These might be personal obstacles you have had to overcome and/or personal advantages that have helped you get ahead. How will these values and experiences guide you in becoming an art therapist?
- Three letters of recommendation from professional or academic references (there is no set form)
- Resume
- Personal and group interviews with faculty are also required after application materials have been received

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions Office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admission Policy for more information.

Prospective students must show evidence of having completed the following prior to admission to the program:

- 12 hours of art studio or demonstrated proficiency in two- and three-dimensional art media techniques and processes
- Minimum of 9 hours of psychology, including developmental and abnormal psychology, as well as psychological statistics. Statistics in a related social or health field may be considered

Applicants with deficiencies will be required to take prerequisite coursework before admission to the program.

Application Deadline

The application deadline for the following fall admission is January 15.

Required Credit Hours/Tuition and Fees

- 60
- Visit the Paying for College website for detailed tuition information

Program of Study

The Master of Arts in art therapy counseling requires a minimum of 60 semester hours.

Required courses (52 hours)

- ART 490 Arts in Community Development
- ART 550 Counseling Techniques in Art Therapy
- ART 552 Assessment of Individuals and Families
- ART 555 Art Therapy with Groups
- ART 556 Family Art Therapy
- ART 557 Developmental Theory and Art Therapy
- ART 561 Social and Cultural Dimensions in Art Therapy
- ART 566 Research Methodology in Art Therapy
- ART 573 Counseling Theory and Art Therapy
- ART 574 Career Counseling
- ART 575 Professional Ethics and Legal Issues
- ART 576 Art Therapy Counseling for Trauma
- ART 595 Research Projects

- SOCW 564 Substance Use Services
- ART 564 Required Practicum (Three credit hours minimum)
- ART 559 Required Internship (Seven credit hours minimum)

Required Options

- Studio Art (any graduate level, three credits)
- Psychopathology (PSYC 431, 531, or 553; or SOCW 537)
- Electives

This program of study, approved by the Accreditation Council of Art Therapy Education, is designed to meet the requirements for students to become:

- Licensed as clinical professional counselors in the state of Illinois
- Registered art therapists with the American Art Therapy Association
- The program can be completed in three years of full-time study

During their first year in the program, all students begin Practicum (ART 564). This introductory practicum is completed in concert with coursework in developmental theory and assessment.

During their second and third years in the program, each student's experience becomes more individualized, with the student choosing from over 100 internship sites with a wide range of client populations.

In order to meet Missouri Counselor License requirements, no online, asynchronous coursework will be approved. Any online course must be at least 50% synchronous.

Elective Examples:

- ART 549 Special Topics in Art Therapy

For more information about licensure in Illinois and Missouri, please visit our professional licensure website.

Degree Available at SIUE

- Master of Arts in Art Therapy Counseling

Graduation Requirements

In addition to successful completion of the program of study, students are required to complete a final project, which can be a traditional research paper, community arts project, grant proposal, or a creative effort accompanied by a written paper in appropriate academic form. After the final project is completed and evaluated by the research project committee, the candidate must successfully complete an oral examination.

Review the graduation policy for more information.

Biological Sciences

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- GPA of at least 2.8 on 4.0 scale preferred
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Statement of Purpose: A personal letter/statement summarizing the applicant's preparation and experience leading to the undertaking of a master's program of study at SIUE, and outlining the applicant's academic and career goals, highlighting the role that a master's degree in biological sciences at SIUE will serve in meeting those goals.
- At least two letters of recommendation, not including the prospective faculty mentor, preferably from instructors and/or individuals who are familiar with the applicant's academic and professional preparation for undertaking a master's program in the biological sciences (submitted directly by the recommenders).
- A faculty mentor's written agreement, submitted directly by the SIUE faculty member, must be secured before admission to the program is finalized. *(This agreement is not submitted with the initial application. Prospective students may contact specific biology faculty members whose areas of research interest them after submitting a completed application. A list of faculty members can be found on the department website.)*
- Applicants with an undergraduate GPA below 2.8 on a 4.0 scale should provide additional justification for admission with clear evidence of potential for success. This may include, but is not limited to: General GRE scores completed within the previous two years, documented relevant work experiences, additional justification by a prospective faculty mentor, explanation of prior coursework record, and successful relevant graduate coursework. These applicants should contact the Graduate Program Director (bio_grad@siue.edu) on initiating an application with notice of the additional items that will be submitted for review.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions Office with questions regarding the application submission process at graduateadmissions@siue.edu.

All applicants must have a faculty member agree in writing to serve as a graduate mentor in order to be considered for acceptance. Therefore, applicants are encouraged to identify and contact prospective graduate mentors, preferably when all other application materials have been submitted, and to contact the biological sciences graduate program director (bio_grad@siue.edu) for assistance, if needed.

Students accepted into the biological sciences graduate program are expected to have completed coursework equivalent to the SIUE undergraduate biology degree requirements, or they may be expected to resolve any deficiencies by completing coursework beyond that required for the graduate degree. Upon admission to the program, the student shall consult with his/her mentor to review the student's academic record and develop a plan of coursework that will address any academic deficiencies.

For full consideration for assistantship support, all application materials including the mentor's written agreement should be submitted by February 1 for the following fall semester, and September 1 for the following spring semester. Applications received after these dates will be considered for any remaining funding. The February 1 and September 1 dates are strongly recommended for all international applications to permit sufficient time for the approval process and visa requirements to be completed.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 32
- Visit the Paying for College website for detailed tuition information

Curriculum

Master of Arts (MA): A student may earn an MA while following the thesis plan. The MA requires a minimum of 32 semester hours, of which at least 24 semester hours must be in biology. The MA also requires a reading knowledge of a foreign language. The foreign language requirement must be met at least three months prior to graduation by passing an examination offered by the Department of Foreign Languages and Literature.

Master of Science (MS): Thesis and non-thesis plans of study are available for fulfillment of the requirements of the MS. The thesis and non-thesis plans require a minimum of 32 semester hours, of which at least 24 semester hours must be in biology. There is no foreign language requirement for the MS.

Thesis Plan

- At least nine semester hours in biology must be earned in courses numbered BIOL 415-490 or 514-590
- Required courses: BIOL 501, 502, and 503 must be completed. BIOL 595 or 596 must be completed twice, or in combination, and must be taken under at least two different faculty members. Completion of BIOL 592 at least twice is required.
- Electives: Eight additional elective semester hours may be needed to reach 32 semester hours.
- Thesis: Students must complete a thesis based on their original research, and must enroll in at least three semester hours of BIOL 599.

Non-Thesis Plan

- At least 14 semester hours in biology must be earned in courses numbered BIOL 415-490 or 514-590
- Required courses: BIOL 501, 502, and 503 must be completed. BIOL 595 or 596 must be completed twice, or in combination, and must be taken under at least two different faculty members. Completion of BIOL 592 at least twice is required.
- Electives: Two additional elective semester hours may be needed to reach 32 semester hours.
- Research Paper: At least four, but no more than eight semester hours must be taken in BIOL 591 and 593, culminating in an acceptable final research paper.

Degrees Available at SIUE

- Master of Science in Biological Sciences
- Master of Arts in Biological Sciences
  - A secondary education biology teaching focus is available with our Master of Science in Education (MSEd) in Curriculum and Instruction.

Graduation Requirements

For the final examination in biological sciences for either the Master of Arts (MA) or the Master of Science (MS), students meet with their advisory committee for a public oral defense of the thesis or research paper.

Review the graduation policy for more information.

Business Administration

Admission Requirements

Admission Criteria:

- Successful completion of a bachelor's degree prior to enrollment
- Applicants should have a minimum cumulative GPA of 2.50 in undergraduate coursework and a minimum cumulative GPA of 3.0 in any graduate coursework*
- Applicants should have grades in quantitative courses that indicate a high probability of success in completing the MBA program**
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent

Admission to the MBA program is selective and based on a variety of factors. The program, at its discretion, may request GRE or GMAT test scores, other supporting documents, or interviews that demonstrate the applicant's ability to successfully complete the MBA degree. At least two years of work experience is recommended for students entering the MBA program.

*Applicants with a cumulative GPA of 2.75 or lower in undergraduate coursework may be required to submit recent GMAT or GRE scores after an initial review of the application.

**Review of quantitative courses will be conducted by the MBA program director.

To Apply:

- Submit the Graduate School application and $40 fee
- Submit all postsecondary academic transcripts
- Submit a current resume
- If requested after initial application review, submit a GMAT or GRE score

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Students who are admitted to and pursuing a PharmD at SIUE and who wish to apply to the MBA program at SIUE may submit an application to the Graduate School for review once they have earned the equivalent of 106 semester hours. A currently enrolled SIUE PharmD student, upon approval of the MBA program director, will be allowed to enroll in a maximum total of six credits of graduate-level business coursework until the student has earned the equivalent of 124 semester hours, at which time the student would be allowed to enroll in further courses toward the MBA.

Students who were not admitted may appeal. These appeals are handled by the MBA program director. Students seeking an exception are required to provide the program director with evidence supporting the reason such an exception should be granted. The program director's decision regarding the appeal is final.

Entry Competencies

Students are expected to enter the program with competencies in computer software and statistics.

Also Available
Accelerated Online Bachelor of Science in Business Administration

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

Program of Study

The following eight courses are required for completion of the MBA program. In addition to the program courses, which comprise 24 credit hours, four elective courses or a specified concentration are required for a total of 36 credit hours to complete the MBA requirements.

MBA program courses:

- **ACCT 524** Accounting for MBAs
- **CMIS 526** Information Systems and Technology
- **ECON 528** Managerial Economics
- **FIN 527** Corporate Finance
- **MBA 521** Quantitative Analysis
- **MBA 522** Decision Making in Organizations
- **MBA 534** Strategic Management
- **MKTG 525** Marketing Analysis and Applications for Managerial Decision Making

Each student must take a total of 12 hours (four courses) of electives or a specialization. Elective courses can be taken in any of the following departments:

- Accounting
- Economics and Finance
- Management and Marketing
- Computer Management and Information Systems

Electives may also be chosen from the courses offered by departments in other schools with the advance approval of the MBA program director. Such courses, however, must be related to the student's career objectives. No more than six hours of 400-level coursework may be used to satisfy MBA requirements.

MBA students with an undergraduate degree from an AACSB-accredited accounting program must choose an elective to replace ACCT 524.

Retention

Students must maintain a cumulative GPA of 3.0 in their MBA courses. Students who fall below this minimum will be placed on academic probation and referred to the associate dean for academic affairs. If the student is permitted to continue in the program, the conditions for continuance will be put in writing and communicated to the student. The full MBA retention policy is available through Business Student Services. In addition, students must have a cumulative GPA of 3.0 or higher in order to receive their degree.

Degrees Available at SIUE

- Master of Business Administration (MBA)

Specializations

- General
- Business Analytics
- Healthcare Administration
- Management
- Management Information Systems
- Project Management

Online Specializations

- General
- Business Analytics
- Healthcare Administration
- Management
- Management Information Systems
- Project Management

Graduation Requirements

In addition to completing coursework, students must also satisfy a comprehensive examination requirement by earning a grade of B or above in MBA 534. Students who earn a grade below B will be given a second opportunity to complete the course in a satisfactory manner. Performance of individuals who fail to earn a B or above in the second attempt will be reviewed by two additional members of the School of Business Curriculum Committee who may recommend that the student be dropped from the program or, in rare instances, be permitted a third attempt to earn a grade of B or above under another instructor.

Review the graduation policy for more information.

Business Analytics

Students may choose a specialization in business analytics as preparation for a career that requires knowledge of business analysis, competitive intelligence, and information security. To complete the specialization in business analytics, MBA students must complete the eight program courses plus the following specialization courses

(prerequisites for these courses must be met prior to enrollment in the course):

- MBA 521 – Quantitative Methods (3)
- CMIS 566 – Introduction to Business Intelligence and Analytics (3)
- Two electives selected from MKTG 563, CMIS 527, CMIS 562, CMIS 563, CMIS 564, or ACCT 565
- CMIS 567 – Business Analytics Capstone (3)

Also Available

Accelerated Online MBA with a Business Analytics Specialization

Healthcare Administration

The healthcare administration specialization prepares students for effective management in healthcare settings. As healthcare delivery systems undergo rapid change, managerial responsibilities increase in scope and magnitude. The healthcare administration specialization includes focused healthcare courses in finance, policy and economics courses that help managers be effective in organizational innovation and change. In addition, customer relationship management is a growing area for healthcare delivery systems to improve provider-patient connections.

To complete the specialization in healthcare administration, MBA students must complete the eight program courses plus the following specialization courses (prerequisites for these courses must be met prior to enrollment in the course):

Four of the following six courses:

- ECON 532 - Health Economics and Policy
- FIN 544 - Health Care Financial Management
- MGMT 541 - Healthcare Law
- MGMT 551 - Managing Organizational Change & Innovation
- MGMT 595 - Seminar in Management - Healthcare Supply Chain
- MKTG 545 - Health Care Marketing
- MKTG 563 - Customer Relationship Management
- PAPA 567 - Topics of Health Care

Also Available

Accelerated Online MBA with a Healthcare Administration Specialization

Management Information Systems

Students may choose to pursue an MBA with a specialization in management information systems (MIS). The MBA/MIS specialization is an advanced professional degree that combines management skills with the study of information systems analysis and design. The program is designed to develop the student's ability to formulate and implement management information systems that will promote the achievement of the goals and objectives of the organization. Emphasis is placed upon the theory of information systems analysis and the modeling of the decision-making process in designing effective information systems.

Through the choice of elective courses in the MIS emphasis area, students can combine the study of management information systems with application to a specific discipline. Courses within the program are modified frequently to keep pace with changes in employer expectations and developments in information systems. Students who complete this degree are qualified for positions such as advanced systems analysts, supervisors of computer and data processing centers, and managers of information centers.

Program content balances theory with applications through case studies and projects that emphasize the effectiveness of organizational information systems in achieving the objectives for which the systems are designed. Factors such as the organizational structure and information requirements are studied within the context of ethical, economic, and socio-technical factors that affect the design of systems.

Some of the elective courses assume that students have an appropriate undergraduate computing background or comparable business experience in the computing field. Students are responsible for ensuring that their background is appropriate to the electives selected through consultation with School of Business advisors.

The specialization is comprised of four electives from

any CMIS course listed in the graduate catalog. No more than two of the courses selected may be at the 400 level.

Also Available

Accelerated Online MBA with a Management Information Systems Specialization

Management

The management specialization prepares students for the increasing responsibilities of managerial roles in organizations, and for positions requiring skilled interpersonal interactions. Students can choose from human resources, operations and emerging markets management courses.

Students must complete four of the following courses to complete the management specialization:

- MBA 523 - Negotiation and Interpersonal Skills for Managers
- MBA 533 - Leadership, Influence and Managerial Effectiveness
- SCM 529 - Operations Management and Process Analysis
- SCM 530 - Supply Chain Planning: Models & Applications
- MGMT 551 - Managing Organizational Change & Innovation
- MGMT 562 - Competing in Emerging Markets
- MGMT 570 - Seminar in Human Resource Management
- MGMT 575 - Entrepreneurship and Small Business Management
- MGMT 595 - Seminar in Management (Emerging Markets)

Also Available

Accelerated Online MBA with a Management Specialization

Project Management

Students may choose to pursue an MBA with a specialization in project management. This specialization equips future business leaders with an understanding of the fundamentals of project management and exposes them to areas of key interest to project managers such as project risk, procurement, quality management, and change management. Coursework addresses many of the concepts covered in the project management certification exam that is administered by the Project Management Institute.

Project management coursework balances theoretical concepts with applied exercises and cases. Students have the opportunity to apply project management concepts and processes in a "live" project. These experiences enable students to emerge with a much better understanding of the dynamics and challenges associated with projects, as well as effective practices for managing them.

In addition to the MBA foundation and core requirements, students choosing the project management specialization must complete twelve credit hours. The following four courses are required:

- CMIS 540 Project Management Fundamentals and Best Practices (3)
- CMIS 546 Project Procurement and Risk Management in Projects (3)
- CMIS 549 Project Management Standard Processes (3)

Additionally, students must complete one of the following courses:

- MGMT 551 Managing Organizational Change and Innovation (3) or
- MGMT 553 Seminar in Quality and Performance Management (3)
- CMIS 548 Program and Project Portfolio Management (3)
- MBA 523 Negotiation and Interpersonal Skills for Managers (3)

Also Available

Accelerated Online MBA with a Project Management Specialization

SIUE Project Support Center

The project management headquarters for the School of Business, the Project Support Center provides access to project management templates associated with the *Techniques for*

Managing Projects textbook.

Project Management Institute and PMP Credential

The Project Management Institute (PMI) is the leading professional membership association for the project management profession. Explore the PMI website to learn more about the project management profession and certification.

Chemistry

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Must have completed at least 36 semester hours in chemistry with an overall GPA of at least 3.0 on a 4.0 scale.
- International students: A minimum score of 550 on the paper-based Test of English as a Foreign Language (TOEFL) test, 79 on the internet-based TOEFL test, or Overall Band of 6.5 on International English Language Testing System (IELTS), is required.
- All applicants must provide evidence to show they can participate effectively in the Department's program. Evidence should include the completion of a baccalaureate degree in chemistry or related science majors.
  - Evidence may also be previous, related study or creative work, two letters of recommendation, research papers, GRE (not required) or honors and awards.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

All students must complete 30 semester hours of graduate coursework with a GPA of 3.2 or higher on a 4.0 scale. At least 24 hours must be in 500-level chemistry courses. Both thesis and non-thesis plans of study are available.

Both thesis and non-thesis plans require:

Core course requirements (12 hours) selected from: CHEM 511, 531, 541, 551, 561

Graduate seminar (2 hours): Attendance in CHEM 575 is required for each semester during the academic year

Electives (6 hours): Coursework may include non-chemistry courses that will contribute to the student's career objectives

Additional requirements for thesis plan:

Successful completion of at least 10 hours of CHEM 597 and 599 is required. Satisfactory completion requires the submission of an acceptable thesis, oral presentation and defense of thesis results.

Additional requirements for non-thesis plan:

Acceptance into the non-thesis plan by the graduate committee and 10 additional hours of coursework at the 500-level are required. Up to four hours of credit from CHEM 596 and 597 can be applied toward the non-thesis plan. Students who pursue the non-thesis plan of study will make an oral presentation and defense of a final paper based on a current literature topic and/or their research achievements.

Degrees Available at SIUE

- Master of Science in Chemistry
  - A secondary education chemistry teaching focus is available with our Master of Science in Education (MSEd) in Curriculum and Instruction.

Combined Degrees

Early Entry MS in Chemistry

Graduation Requirements

Students following the thesis plan will make an oral presentation and defense of their thesis results. Students who pursue the non-thesis plan of study will make an oral presentation and defense of a final

paper based on a current literature topic and/or their research achievements.

Review the graduation policy for more information.

Civil Engineering

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Cumulative GPA in all undergraduate engineering, mathematics, and science courses of at least 2.75 on a 4.0 scale, or 70% on other scales. For those not meeting this requirement but having at least four years of work experience, supporting evidence (such as a letter of explanation from the applicant, high GRE scores, letters of recommendation from employers, and PE licensure) will also be considered. International students are encouraged to submit GRE scores along with other required graduate admission documentation.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn six hours of graduate-level credit for courses taken their senior year. The accelerated option does not apply to post-baccalaureate certificates.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

If admitted, those who do not have a Bachelor of Science in civil engineering may be required to complete prerequisite courses that are not for graduate credit. Note that a Master of Science will not qualify a candidate to take the PE licensure examination in most states.

Further information on the Department of Civil Engineering's policies can be found on the Department website.

Review the SIUE Admissions Policy for more information.

Early Entry MS in Civil Engineering

The Department of Civil Engineering offers undergraduate students the opportunity to begin coursework towards the Master of Science during the senior year of their Bachelor of Science program. Students with senior-level status in civil engineering (at least 90 semester hours) and an overall GPA of 3.25 on a 4.0 scale in engineering, mathematics, and physical science courses may be admitted to the MS program, allowing them to earn 30 hours of graduate-level credit (400- and 500-level) during their combined fourth and fifth years.

These students are eligible to apply for assistantships in the department. An application for degree-seeking status as a graduate student must be approved by Graduate Admissions and the Graduate Admissions Committee in civil engineering. A program outline must be submitted for approval by the graduate program director and Graduate Records prior to enrollment in any courses in order to be included as a part of the master's program. Official admission to the graduate program with status as a classified graduate student is made only after the award of the baccalaureate degree. In no case will a graduate degree be conferred before all requirements for both degrees have been completed.

Please note: Only current SIUE students are eligible for this program.

Required Credit Hours/Tuition and Fees

- Thesis Option: 30
- Non-Thesis Option: 31
- Visit the Paying for College website for detailed tuition information

Program of Study

After admission and before enrolling in any courses, students are required to meet with the Graduate Program Director, who appoints, in consultation with the student, an advisory committee suited to the student's background and interests.The advisory committee assists the student in planning a program

of study. This plan is to be completed by the end of the first semester.

Because of the importance of communication to the engineering profession and the need for excellent writing skills to complete degree requirements, all students are required to satisfactorily complete a technical writing course. Students with good writing skills may elect to submit an essay to be evaluated for conditional exemption from the English course requirement. If conditional exemption is granted, the student will substitute another approved course in the plan of study.

At least 20 semester hours must be in courses taught in civil engineering, and at least 15 semester hours must be at the 500-level.

Thesis Option

Students selecting the thesis option must complete a minimum of 30 semester hours. Students will be guided in thesis work by a thesis advisor, with the assistance and concurrence of the advisory committee. The number of hours to be awarded for thesis credit (CE 599-up to six credit hours) is to be specified by the advisory committee prior to approval of the thesis proposal. Thesis credit counts as part of the 30 credits required for the degree. Writing a thesis involves an intensive research effort and may require about six months to complete. The thesis must be formally accepted by the Graduate School.

Non-Thesis Option
Students selecting the non-thesis option must complete a minimum of 31 semester hours. Students prepare a research paper, the topic of which is mutually agreed upon by the student and the advisory committee. One credit hour is awarded for non-thesis credit (CE 593) and counts as part of the 31 credits required for the degree. Guidelines are available on the department website.

In developing a plan of study, students need to consider which courses will enable them to reach their goals as a civil engineer. Students may wish to choose from a variety of courses available to assist them in the completion of their thesis or final research paper. Note that not all courses may be offered at all times and that course offerings do not guarantee availability of a spot in that class. It is up to students to review published schedules and consult with their advisor to find out when the courses are offered and how they will fit into their course of study schedules. In addition, it is up to students to assure that they have met the prerequisites for courses prior to enrollment.

Doctoral Degree

A doctoral degree requires a minimum of 26 semester hours of coursework, a qualifying exam and 24 semester hours of dissertation research.

Degrees Available at SIUE

- Master of Science in Civil Engineering

A PhD in Engineering Science is offered in cooperation with SIUC.

Specialized Learning Opportunities

- Environmental/Water Resources Engineering Specialization
- Geotechnical Engineering Specialization
- Structural Engineering Specialization
- Transportation Engineering Specialization
- Water Engineering Post-Baccalaureate Certificate
- Transportation Engineering Post-Baccalaureate Certificate

Combined Degrees

- Accelerated Combined BS and MS in Civil Engineering
- Early Entry MS in Civil Engineering

Graduation Requirements

Thesis Option
After all requirements for the Master of Science are met, per the approved program of study, an oral final examination directed on the coursework and related material on the thesis will be given by the advisory committee.

Non-Thesis Option
After all requirements for the Master of Science are met, per the approved program of study, a final examination comprised of written elements, as well as an oral examination directed on the research

paper will be given.

Doctoral Degree
After all requirements for the doctoral degree are met, per the approved program of study, an oral dissertation defense will be given by the dissertation committee.

Review the graduation policy for more information.

Environmental/Water Resources Engineering Specialization

Environmental engineering includes the design and operation of water distribution and wastewater collection systems, water and wastewater treatment facilities, managing biosolids and solid waste, as well as preventing pollution. Water resources engineering includes designing and maintaining stormwater facilities to manage both the quantity and quality of runoff. Facilities could include green roofs, permeable pavements, retention basins, infiltration basins and many more.

Courses

Students are required to complete 10 courses, which is 30-31 hours of advanced study. At least 15 hours must be at the 500-level. At least seven courses must be chosen from the following list:

- (3) CE 416 Engineering Hydrology
- (3) CE 460 Municipal Infrastructure Design
- (3) CE 480 Environmental Analysis
- (3) CE 486 Wastewater Treatment Design
- (3) CE 487 Water Treatment Design
- (3) CE 488 Hazardous Waste Management
- (3) CE 581 Advanced Wastewater Treatment
- (3) CE 582 Water Quality and Treatment
- (3) CE 587 Air Pollution Control
- (3) CE 588 Solid Waste Management
- (3) CE 589 Industrial Materials and Waste
- (3) CE 596 Sustainable Engineering

Upon advance approval of the committee, CE 591 or 599 may be taken in place of one or two of the above courses. Students will need to complete a course study proposal prior to enrolling in either of these classes. In addition, up to three special course offerings, generally listed as CE 492 or 592, may be taken with the advance approval of the committee.

ENG 491 is required for all students unless conditional exemption is granted; see the Writing Proficiency Requirement for further details. ENG 491, if taken, can be counted as part of the 30-31 hours of advanced study. CE 593 is required for the non-thesis option. For lists of pre-approved courses, see the Department of Civil Engineering.

Geotechnical Engineering Specialization

Geotechnical engineering includes the design of shallow and deep foundations, slopes, retaining walls, levees, subsurface exploration programs, underground openings such as tunnels and mines, base/subbase/subgrade of roadways, and soil improvements under static, hydrostatic, and earthquake loadings.

Courses

Students are required to complete 10 courses, which is 30-31 hours of advanced study. At least 15 hours must be at the 500-level.

At least seven courses must be chosen from the following list:

- (3) CE 435 Pavement Design
- (3) CE 455 Foundation Design
- (3) CE 457 Soil Mechanics in Engineering
- (3) CE 458 Geological and Geotechnical Exploration
- (3) CE 459 Soil Improvement Methods
- (3) CE 492-12 Environmental Geotechnics
- (3) CE 548 Finite Elements
- (3) CE 550 Advanced Soil Mechanics
- (3) CE 551 Design of Levees and Floodwalls
- (3) CE 592-11 Geotechnical Earthquake Engineering
- (3) CE 592-12 Advanced Foundation Engineering
- (3) CE 596 Sustainable Engineering
- Upon advance approval of the committee, CE 591 or 599 may be taken in place of one to two of the above courses upon advance approval of the committee. Students will need to complete a course study proposals prior to enrolling in either of these classes.
- In addition, up to three special course offerings, listed as CE 492 or CE 592, may be taken with the advance approval of the committee.

- ENG 491 is required for all students unless conditional exemption is granted; see the Writing Proficiency Requirement for further details. ENG 491, if taken, can be counted as part of the 30-31 hours of advanced study.
- CE 593 is required for the non-thesis option; CE 599 is required for the thesis option.

For lists of pre-approved courses, see the Department of Civil Engineering.

Structural Engineering Specialization

Structural engineering includes the design of buildings and bridges, considering loads such as wind, earthquakes and people. Designs could include materials such as concrete, steel, timber, masonry and fiber-reinforced polymers.

Courses

Students are required to complete 10 courses, which is 30-31 hours of advanced study. At least 15 hours must be at the 500-level. At least seven courses must be chosen from the following list:

- (3) CE 435 Pavement Design
- (3) CE 441 Design of Timber Structures
- (3) CE 443 Design of Masonry Structures
- (3) CE 445 Advanced Structural Analysis
- (3) CE 446 Advanced Concrete Design
- (3) CE 449 Advanced Steel Structures
- (3) CE 455 Foundation Engineering
- (3) CE 541 Bridge Engineering
- (3) CE 545 Structural Dynamics
- (3) CE 548 Finite Elements
- (3) CE 549 Earthquake Engineering
- (3) CE 596 Sustainable Engineering

Upon advance approval of the committee, CE 591 or 599 may be taken in place of one or two of the above courses. Students will need to complete a course study proposal prior to enrolling in either of these classes. In addition, up to three special course offerings, generally listed as CE 492 or 592, may be taken with the advance approval of the committee. ENG 491 is required for all students unless conditional exemption is granted; see the Writing Proficiency Requirement for further details. ENG 491, if taken, can be counted as part of the 30-31 hours of advanced study. CE 593 is required for the non-thesis option. For lists of pre-approved courses, see the Department of Civil Engineering.

Transportation Engineering Specialization

Transportation engineering focuses on the design of facilities that enable the mobility of travelers. These include designing highways, traffic signals and pavements. Transportation engineers consider factors such as pedestrian and traffic safety, evacuations, pavement management and intelligent transportation systems.

Courses

Students are required to complete 10 courses, which is 30-31 hours of advanced study. At least 15 hours must be at the 500-level. At least seven courses must be chosen from the following list:

- (3) CE 435 Pavement Design
- (3) CE 460 Municipal Infrastructure Design
- (3) CE 473 Travel Demand Forecasting
- (3) CE 474 Computer Simulation in Traffic Engineering
- (3) CE 475 Transportation Planning
- (3) CE 476 Traffic Studies
- (3) CE 574 Transportation Security
- (3) CE 575 Advanced Geometric Design of Highways
- (3) CE 578 Intelligent Transportation Systems
- (3) CE 579 Transportation Safety Systems
- (3) CE 596 Sustainable Engineering

Upon advance approval of the committee, CE 591 or 599 may be taken in place of one or two of the above courses. Students will need to complete a course study proposal prior to enrolling in either of these classes. In addition, up to three special course offerings, generally listed as CE 492 or 592, may be taken with the advance approval of the committee. ENG 491 is required for all students unless conditional exemption is granted; see the Writing Proficiency Requirement for further details. ENG 491, if taken, can be counted as part of the 30-31 hours of advanced study. CE 593 is required for the non-thesis option. For lists of pre-approved courses, see the Department of Civil Engineering.

Computer Science PhD

Admission Requirements

Applicants must meet the admission requirements of the SIUE and SIUC Graduate Schools and must be approved by the Graduate Studies Committee of the SIUC College of Engineering. Admission requirements include:

- Master's in computer science or a related field with a minimum GPA of 3.25/4.0
- GRE scores submitted to SIUE (institution code 1759)
- Three letters of recommendation
- Statement of purpose
- Any additional evidence of scholarly ability and/or achievement (awards, scholarships, work experience, published research papers, CV, resume)
- TOEFL scores for non-native speakers of English submitted to SIUE (institution code 1759)
- Minimum of funding for international students of U.S. $42,500 for each year of the proposed course of study, including funds from a graduate assistantship

For information about GRE and/or TOEFL, or to register for either test, please contact Educational Testing Service.

Application Process

Some application materials must be sent to SIUE while some must be sent to SIUC. Follow the instructions below to ensure your application review is not delayed. Documents under each institution must be received by that institution before applications will be reviewed by that institution.

SIUE Application

- Applicants must complete the online application
- Official bachelor's transcript
- Official master's transcript
- Official GRE Score (institution code 1759)
- Three letters of recommendation
- Statement of purpose
- Evidence of scholarly ability and/or achievement
- Current SIUE non-refundable application fee in U.S. dollars
- International students
  - Official TOEFL Score (institution code 1759)

Official transcripts must be sent electronically to siueapps@siue.edu directly from the institution or mailed to:

SIUE Graduate and International Admissions
Co-op PhD Application
Campus Box 1047
Edwardsville, IL 62026-1047

SIUC Application

- Applicants need to submit an electronic application
  - Create an account
  - Program selection will be Computer Science
  - Degree selection will be PhD
  - When asked to provide letters of recommendation, enter SIUE as the recommender with the email address of siueapps@siue.edu
    - This will allow SIUE to attach the letters of recommendation already submitted to SIUE to SIUC.
  - International Students
    - Copy of Passport
    - Financial Statement
      - This document is found at the end of the SIUC application. It must be completed even if you have been promised an assistantship.
      - Before you can be admitted, it is necessary for you to indicate that a minimum of U.S. $40,500 will be available to you for each year of your proposed course of study.
      - Be sure to indicate if your studies are totally dependent upon an assistantship or if you have personal funds to fulfill this requirement.
      - If you have personal funds, be sure to submit official documentation of funds and amounts via a recent bank statement
  - Current SIUC non-refundable application fee in U.S. dollars (credit card only)

Admission Process

Your application will be reviewed by the SIUE

School of Engineering and the SIUE department you plan to work with. If the application receives approval from these two entities, it will be reviewed by the appropriate SIUC college and department. If it receives approval from these two entities, it will be reviewed by the SIUC Graduate School. Your application can only be deferred one time. Therefore, if your application does not receive approval in time for the semester you apply, it must be approved in time for the next or it will be withdrawn and you will have to reapply. SIUC grants or denies final admission to the program.

Requirements for Retention

The rules of the SIUC Graduate School apply. In addition, students holding graduate assistantships are required to carry no more than two incomplete grades at any given time to be eligible to continue their assistantship appointments.

Curriculum

The computer science program consists of 24 credit hours of 400/500-level courses and 24 credit hours of CS 600 Dissertation Research, all of which are subject to the following constraints:

- Two one-credit seminar courses
- Six credit hours from approved computer science 400/500-level courses
- Six elective credit hours of CS 500-level courses
- Six credit hours of 400/500-level courses from approved academic departments other than computer science

The student will work with the Dissertation Committee to supervise the remaining doctoral work. This committee will consist of five graduate faculty members, one or two of whom will be from a graduate program outside the department. The student's dissertation advisor will serve as the Chair of this committee.

The minimum course requirements are listed in the SIUC Graduate Catalog as well as on the computer science website.

Degrees Available at SIUE

- Doctor of Philosophy

Areas of Concentration

- Computer Science

Graduation Requirements

In order to graduate, students of the PhD program must have successfully completed the following requirements:

- All requirements of the SIUC Graduate School must be satisfied.
- A minimum of 24 hours of doctoral-level coursework must be completed. The GPA must be 3.25 or higher on a scale of 4.00.
- An acceptable dissertation must be completed within five years after admission to candidacy. In the event the dissertation is not completed in the set time frame, the student will be required to take and pass the candidacy exams again.

The doctoral degree is conferred by SIUC. Students must apply for graduation and pay application fees by the deadline via SalukiNET.

Computer Science

Admission Requirements

1. Graduate School application and $40 fee
2. Submission of all academic transcripts
3. A bachelor's degree from an accredited college or university. An undergraduate major in science, engineering, mathematics, or computing is desirable, but individuals with other backgrounds who are interested in the program are invited to discuss their career objectives with the program director.
4. An undergraduate GPA of 2.75 or above on a 4.0 scale.
5. Graduate Record Examination (GRE) general test scores are recommended but not required.
6. An international applicant whose native language is not English is required to demonstrate adequate proficiency in English. Applicants should have scored at least 550 on the Test of English as a Foreign Language (TOEFL) paper exam with a minimum of 50th percentile in all three sections, or at least 217 on the TOEFL computer exam. TOEFL scores older than two years from the term for which admission is sought are not valid. Minimum score required on the IELTS is 6.5.
7. Submission of a statement of purpose detailing the applicant's background and career plans
8. Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn graduate-level credit for courses taken their senior year.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Prerequisite Courses

Students entering the program will need the specific background detailed below. Normally, a grade of B or above is required in each of the prerequisite courses. For those students who do not have all of the necessary background, some of the prerequisite courses may be completed after enrolling in the program. Students who have completed these courses but received their undergraduate degree from a non-ABET-accredited program will be required to take CS 501. The CS 501 course credits will count towards the hours required for the degree. Please note that none of the prerequisite courses listed below count toward the Master of Science in computer science.

Proficiency in CS Courses:

- CS 140 and CS 150 Introduction to Computing I and II
- CS 340 Algorithms and Data Structures
- CS 286 Computer Organization
- CS 314 Operating Systems

Math Courses:

- MATH 150 Calculus I
- MATH 224 Discrete Mathematics
- Two additional math courses selected from:
  - MATH 152 Calculus II
  - MATH 321 Linear Algebra
  - STAT 244 Statistics
  - MATH 423 Combinatorics and Graph Theory
  - Other approved courses

Required Credit Hours/Tuition and Fees

- 34
- Visit the Paying for College website for detailed tuition information

Curriculum

The program requires 34 semester hours and consists of four core courses and completion of either a thesis option, a Master of Science (MS) project, or passing of the final exam.

The thesis option requires six elective courses with six semester hours of thesis. The MS project option requires seven elective courses and three semester hours of MS project. The final exam option requires eight elective courses and successfully passing the final exam. At least 17 of the 34 hours must be 500-

level courses or above. For the purposes of assessment, students are also expected to complete two anonymous graduation surveys at the conclusion of their graduate program.

Students in the program must maintain a GPA of at least 3.0 on a 4.0 scale in all graduate courses. Any course in which a grade below C has been earned will not count toward the graduate degree.

Core Courses (10 hours)

- (3) CS 456 Advanced Algorithms
- (1) CS 500 Graduate Seminar in Computer Science
- (3) CS 514 Operating Systems
- (3) CS 516 Computer Architecture

Total Hours (by option)

- 24 hours are required for the final exam option
- 21 hours with three hours of CS 596 are required for the MS project option
- 18 hours with six hours of CS 599 are required for the thesis option

Up to six hours of courses not listed below may be taken for graduate credit with the approval of the computer science program director.

Elective Courses

- (3) CS 423 Compiler Construction
- (3) CS 434 Database Management Systems
- (3) CS 438 Artificial Intelligence
- (3) CS 447 Networks and Data Communications
- (3) CS 454 Theory of Computation
- (3) CS 463 Cryptography
- (3) CS 476 Bioinformatics
- (3) CS 482 Computer Graphics
- (3) CS 501 Intensive Computer Science Fundamentals
- (3) CS 525 Principles of Simulation
- (3) CS 530 Software and Systems Management
- (3) CS 535 Software Engineering
- (3) CS 547 Network Programming
- (3) CS 550 Object Oriented Design and Programming
- (3) CS 582 Advanced Computer Graphics
- (3) CS 583 Topics in Programming Languages
- (3) CS 584 Topics in Artificial Intelligence
- (3) CS 587 Topics in Computer Networking
- (3) CS 590 Topics in Computer Science
- (3) CS 595 Independent Study
- (3) CS 596 MS Project
- (6) CS 599 MS Thesis

A student may take two elective courses (see list below) from outside the CS department. He or she can take an additional outside elective if the course is considered part of the concentration, as approved by the graduate program director.

- (3) ECE 438 Computer Vision
- (3) ECE 439 Digital Image Processing
- (3) ECE 577 Advanced Network Engineering
- (3) ECE 592 Topics in Electrical Engineering
- (3) CMIS 540 Management of Information Systems Development
- (3) CMIS 565 Oracle Database Administration

Degrees Available at SIUE

- Master of Science in Computer Science
- PhD in Computer Science, a cooperative program with SIU Carbondale

Combined Degrees

- Accelerated Combined BA or BS and MS in Computer Science
- Early Entry MS in Computer Science

Graduation Requirements

Thesis Option

The thesis will normally be completed during the last semester or two in the program, but selection of the advisory committee and the approval of thesis proposal must be completed before the final semester. The final examination will include an oral presentation of the thesis and an oral examination on the thesis conducted by the advisory committee.

Non-thesis Option

Students must complete one of the following two options:

- Final Exam: This is a non-credit exam, given once each semester (fall and spring), for students who

have completed at least 21 hours of graduate credit. Refer to the Final Exam Guideline for additional information.

- Master of Science (MS) Project (CS 596): This is a three credit hour elective course in which an oral exam will serve as the MS exit exam. Please refer to the MS project document for additional information.

Review the graduation policy for more information.

Criminal Justice Policy

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA of 2.50
- Two letters of recommendation (can both be from undergraduate faculty or one can be from a current employer)
- Statement of purpose
- GRE score (optional)
- Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn graduate-level credit for courses taken their senior year.

This is a fully online program. International students cannot receive a visa to study in the U.S. for this program. Students are not eligible to enroll in this program from outside of the U.S.

Applications are reviewed by an Admissions Committee composed of graduate faculty in criminal justice studies. Admission is competitive and the committee will evaluate each applicant based on the above criteria and GPA in prior coursework in criminal justice or criminology. The statement of purpose should describe the student's reasons for applying and expectations upon graduation as well as any current or prior employment in criminal justice.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions Office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

The two-year program offers six consecutive semesters of classes, including summers. The one-year program offers four consecutive semesters of classes, including summers. Students receiving Prior Learning Assessment credit will reduce the program by one summer semester. Each cohort would begin in the fall semester.

The program requires 30 credit hours. Students are required to take 15 credits of required core credits, 0-6 hours of exit requirement coursework (6 hours for the thesis or capstone option or 0-3 hours for the exam option, depending on the exam option chosen), and 9-15 hours of electives, for a total of 30 hours. All 500-level courses are eight weeks in duration. All 400-level elective courses are 16 weeks in duration and may be offered online or in a physical classroom. Offerings of elective courses rotate. Contact the Graduate Program Director to determine elective availability.

See the graduate course descriptions for details.

Required Core Courses (15 Hours)

- CJ 502 Applied Research in Criminal Justice
- CJ 505 Criminological Theory
- CJ 513 Criminal Justice Statistics
- CJ 515 Criminal Justice Planning and Budgeting
- CJ 517 Policy Analysis

Exit Requirement Coursework (0-6 Hours)

- Thesis Option: CJ 599 Thesis I and II (6 hours)
- Capstone Option: CJ 598 Capstone I and II (6 hours)
- Exit Exam Option:
  - Directed Exit Exam = CJ 596 Readings in Criminal Justice (3 hours)
  - General Exit Exam = 0 credit hours

Elective Courses (9-15 Hours, depending upon

exit requirement chosen)
(offered periodically, refer to the Class Schedule in CougarNet for availability)

- CJ 508 Disparate Treatment in the Criminal Justice System
- CJ 527 Cybercrime
- CJ 528 Civil Liability
- CJ 529 Human Trafficking
- CJ 535 Seminar in Juvenile Justice
- CJ 540 Seminar in Correctional Theory and Practice
- CJ 590 Special Topics
- CJ 596 Readings in Criminal Justice Policy

Elective Senior Level Courses for Graduate Credit

- CJ 408 Critical Issues in Law Enforcement
- CJ 410 Judicial Process in Criminal Cases
- CJ 420 United States Drug Policy
- CJ 464 Criminal Justice and the Mental Health System
- CJ 465 Theories of a Just Society

Sample Plan of Study: Two-Year Track with Thesis or Capstone

Course availability is subject to change. Consult with the Graduate Program Director to develop your individual Plan of Study.

Year 1 Fall Semester

(1st 8 weeks) CJ 502 Applied Research in Criminal Justice
(2nd 8 weeks) CJ 505 Seminar in Criminology

Year 1 Spring Semester

(2nd 8 weeks) CJ 517 Policy Analysis

Year 1 Summer Semester

CJ Elective
CJ 515 Criminal Justice Planning and Budgeting

Year 2 Fall Semester

(1st 8 weeks) CJ Elective
(2nd 8 weeks) CJ 513 Criminal Justice Statistics

Year 2 Spring Semester

(1st and 2nd 8 weeks) CJ 598 Capstone or CJ 599 Thesis

Year 2 Summer

CJ Elective (or PLA credit)

Sample Plan of Study: Two-Year Track with Exit Exam

Course availability is subject to change. Consult with the Graduate Program Director to develop your individual Plan of Study.

Year 1 Fall Semester

(1st 8 weeks) CJ 502 Applied Research in Criminal Justice
(2nd 8 weeks) CJ 505 Seminar in Criminology

Year 1 Spring Semester

(1st 8 weeks) CJ 517 Policy Analysis
(2nd 8 weeks) CJ Elective

Year 1 Summer Semester

CJ Elective
CJ 515 Criminal Justice Planning and Budgeting

Year 2 Fall Semester

(1st 8 weeks) CJ Elective (for General Exam option) OR CJ 596 Readings in Criminal Justice (for Directed Exam option)
(2nd 8 weeks) CJ 513 Criminal Justice Statistics

Year 2 Spring Semester

(1st 8 weeks) CJ Elective
(2nd 8 weeks) CJ Elective

Year 2 Summer

Exit Exam

Sample Plan of Study: One-Year Track with Thesis or Capstone

Course availability is subject to change. Consult with the Graduate Program Director to develop your individual Plan of Study.

First Summer Semester

CJ 515 Criminal Justice Planning and Budgeting

Year 1 Fall Semester

(1st 8 weeks) CJ 502 Applied Research in Criminal Justice

(1st 8 weeks) CJ Elective
(2nd 8 weeks) CJ 505 Seminar in Criminology
(2nd 8 weeks) CJ 513 Criminal Justice Statistics

Year 1 Spring Semester

(1st 8 weeks) CJ Elective
(1st 8 weeks) CJ 598 Capstone or CJ 599 Thesis
(2nd 8 weeks) CJ 517 Policy Analysis
(2nd 8 weeks) CJ Elective

Sample Plan of Study: One-Year Track with Exit Exam

Course availability is subject to change. Consult with the Graduate Program Director to develop your individual Plan of Study.

First Summer Semester

CJ Elective (or PLA credit)
CJ 515 Criminal Justice Planning and Budgeting

Year 1 Fall Semester

(1st 8 weeks) CJ 502 Applied Research in Criminal Justice
(1st 8 weeks) CJ Elective
(2nd 8 weeks) CJ 505 Seminar in Criminology
(2nd 8 weeks) CJ 513 Criminal Justice Statistics

Year 1 Spring Semester

(1st 8 weeks) CJ Elective
(1st 8 weeks) CJ Elective (for General Exam option) OR CJ 596 Readings in Criminal Justice (for Directed Exam option)
(2nd 8 weeks) CJ 517 Policy Analysis
(2nd 8 weeks) CJ Elective

Second Summer Semester

Exit Exam

Degrees Available at SIUE

- Master of Science

Combined Degree

- Accelerated Combined BA or BS and MS in Criminal Justice

Graduation Requirements

Students must choose one of the below exit requirements to complete the degree. All students must have a minimum of 30 credit hours in the program to graduate.

1. **Capstone Option**: The capstone project option is geared toward the working professional. The student would propose a policy, procedure, or program development that would benefit his/her home agency, while incorporating the knowledge learned in the program. This proposal must be approved by a committee composed of three faculty members. Once the capstone project is completed, the student would record and upload a presentation to Blackboard collaborate or similar software, and then the presentation would be placed on a streaming server. The committee of three faculty members would then be able to view the presentation in the capstone course shell via the link housed on the streaming server. The capstone project option may be taken for 3 hours or 6 hours. If the student selects the 3 hour option, they will take 27 hours of other programs courses. If they select the 6 hour option, they will take 24 hours of other program courses.

2. **Thesis Option**: The thesis project option is envisioned to be a traditional research paper. The topic of the thesis must be approved by a committee of three faculty members. The final thesis will be uploaded and defended to the committee of three faculty members online via Skype, Zoom, or other appropriate technology. The thesis must be uploaded to ProQuest and have formatting approved by the Graduate School by the posted deadlines. The thesis option may be taken for 3 hours or 6 hours. If the student selects the 3 hour option, they will take 27 hours of other program courses. If they select the 6 hour option, they will take 24 hours of other program courses.

3. **General Exit Exam Option**: To complete the program using the exit exam option, students must receive a passing grade on a comprehensive exit examination. Students must submit two papers written during their course work as evidence of their writing skills and have a GPA of 3.0 or higher in the criminal justice policy core

courses in order to qualify to take the final comprehensive examination. If the student chooses to take the general exam, the student may do so with 30 credit hours of other program courses.

4. **Directed Exit Exam Option**: To complete the program using the exit exam option, students must receive a passing grade on a comprehensive exit examination. Students must submit two papers written during their course work as evidence of their writing skills and have a GPA of 3.0 or higher in the criminal justice policy core courses in order to qualify to take the final comprehensive examination. If the student selects the directed exit exam option, they will take 3 hours of CJ 596, Readings in Criminal Justice, and 27 hours of other program courses. The exam topics will be directed by working with a Criminal Justice faculty member.

Review the graduation policy for more information.

Curriculum Instruction

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA of 3.0 or higher on a 4.0 scale for the last two years of the bachelor’s degree program
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

Curriculum

Candidates for the Master of Science in education with a major in curriculum and instruction with an optional specialization in special education will complete a 36 semester hour program of study, including an option in one of 12 teaching fields planned in consultation with an advisor. Some programs of study may include more than 36 hours to satisfy content area prerequisites.

The program consists of the following components:

Curriculum & Instruction Requirements (no specialization)

Professional Core (12 hours)

- (3) Cl 510A Analysis of Instruction P-12
- (3) Cl 548A Action Research P-12
- (3) Cl 563A Curriculum Models: Curriculum OR (3) Cl 537 Early Childhood Curriculum
- (3) EPFR 515 Issues in learning Theory OR (3) EPFR 520 Analysis of Educational issues: Philosophical-Historical Foundations OR (3) EPFR 521 Analysis of Educational Issues: Socio-Cultural Foundations

Research Sequence including Final Project (6 hours)

- (6) Cl 596A-M Field Study in Curriculum and Instruction OR (6) Cl 599 Thesis

Curriculum & Instruction with a Specialization in Special Education Requirements

Professional Core (15 hours)

- (3) SPE 511 Individualized Educational Assessment
- (3) SPE 514 Legal Aspects of Special Education
- (3) SPE 522 Instructional Methods for Students with Mild/Moderate Disabilities
- (3) SPE 523 Instructional Methods for Students with Severe Disabilities
- (3) EPFR 515 Issues in learning Theory OR (3) EPFR 520 Analysis of Educational issues: Philosophical-Historical Foundations OR (3) EPFR 521 Analysis of Educational Issues: Socio-Cultural Foundations

Research Sequence including Final Project (6 hours)

- (3) SPE 500 Research in Special Education
- (3) SPE 595 Action Research in Special Education

Elective Options (18 hours for no specialization; 15 hours for specialization in Special Education)

Subsequent endorsements are sequences of courses established with the State of Illinois. Students take the sequence of courses, followed by a test, then petition the state (ISBE) for licensure in this area. These offerings are subject to change based upon state requirements. Specific courses are required for all subsequent endorsements, please check with the graduate program director for more information.

- (18) Reading Teacher (K-12) Endorsement
- (18) Special Education LBS-1 (K-21) Endorsement*
- (18) Secondary Education (9-12) Endorsement
  - Art
  - Biology
  - Chemistry
  - English/Language Arts
  - Foreign Languages (French, German, Spanish)
  - History
  - Geography
  - Mathematics
  - Music
  - Physics
  - Political Science
  - Theater

Notes: The secondary education elective courses should be chosen with consultation of the graduate program advisor in the Department of Teaching and Learning and a content faculty advisor, when appropriate.

*The special education LBS 1 K-21 subsequent endorsement is designed specifically for students only seeking the endorsement, without the CI MSED with a specialization in special education. For CI MSED students specializing in special education, we suggest electives such as SPE 514, SPE 515, SPE 517, CI 560, CI 561, CI 562, CI 563, or the reading teacher endorsement (K-12). Students pursuing a CI MSED without the specialization in special education can also pursue the LBS1 K-12.

Retention

Maintain a GPA of 3.0 or higher on a 4.0 scale.

Degrees Available at SIUE

- Master of Science in Education

Specialization

- Special Education

Subsequent Endorsements

- Reading Teacher (K-12)
- Secondary Education (9-12)
- Special Education LBS-1 (K-21)

Online Specialization

- Advanced Teaching Strategies

Reading Teacher (K-12) Endorsement

Program of Study

Eighteen (18) credit hours of graduate coursework are required for the reading teacher endorsement (RTE) through the state of Illinois. Courses for this option are offered in a cohorted model in which students take prescribed courses in a specific order during specific semesters. Students not pursuing the RTE can also use these courses individually as electives to supplement the required elective core courses in the MSEd. Students wanting the endorsement without a master's degree will only take the courses below. The RTE requirements are as follows:

- CI 513 Literature Across the Curriculum (3)
- Cl 520 Theoretical Foundations in Literacy (3) (can be substituted for EPFR 515)
- Cl 521 Emergent and Primary Level Literacy (3)
- Cl 540 Content Area Literacy (3)
- Cl 571 Diagnostic Assessment and Instruction (3)
- Cl 572 Diagnostic Literacy Practicum for Elementary Level (3)

In addition to the courses listed, students are required to pass the Reading Teacher Test (177/222) or the Reading Specialist Test (221) as directed by the Illinois State Board of Education to earn this endorsement.

Field Experience During Foundations Courses

Intensive and extensive field experiences (Cl 521, 525 and 540) help prepare candidates to analyze their own instruction. Candidates begin ongoing reflection and development of their knowledge of literacy processes, assessment, instructional strategies and materials to plan and adapt instruction to meet the diverse needs of students in prekindergarten through grade 12. Through collaboration and constructive coaching, candidates enhance their knowledge, skills and dispositions.

Entry to Clinic Practicum

Prior to enrolling in Cl 571, the first clinical course, candidates must earn an A or B in the following three core courses: Cl 520, Cl 521, Cl 540; have a minimum of two years of successful full-time contract teaching; and pass all initial program assessments.

Secondary Education Endorsement

Specific departments in the College of Arts and Sciences, in cooperation with the Department of Teaching and Learning in the School of Education, Health and Human Behavior offer a content-specific teaching field specialization as part of the Master of Science in Education (MSEd) in curriculum and instruction. A jointly advised program ordinarily including 18 hours in the content area will be designed, taking into account each student's background and interests.

Before beginning and throughout the program, the student must consult with the content area graduate advisor before registering for any courses in the content area. Upon completion of the program, the student must have accumulated at least 42 semester hours in the content area (graduate and undergraduate work combined). Students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 18 graduate hours in the content area in order to satisfy degree requirements. Students must achieve a GPA of at least 3.0 on a 4.0 scale in the content area teaching field, as well as an overall GPA of at least 3.0 on a 4.0 scale.

Special Education LBS-1 (K-21) Endorsement

Program of Study

The special education (LBS1) endorsement may be added onto an existing professional educator license and limits the holder to the grade ranges of the existing endorsements.

Teachers must apply for the endorsement at the Regional Office of Education in their county. Based on the broad areas defined by the Illinois State Board of Education, SIUE has identified the required courses as listed below.

- SPE 400 The Exceptional Child (3)
- SPE 502 Characteristics of Individuals with Disabilities (3)
- SPE 511 Individual Educational Assessment (3)
- SPE 522 Instructional Methods for Mildly/Moderately Disabled and At-Risk Students (3)
- SPE 523 Instructional Methods for Students with Severe Disabilities (3)
- SPE 540 Behavioral Issues and the Learning Environment (3)

To receive the endorsement, teachers must meet the coursework requirements for an approval and pass the cross-categorical special education test (LBSI #155).

Graduation Requirements

All candidates must complete a final project within their research sequence courses. In consultation with an advisor, candidates will complete one of the following: action research project or thesis. Candidates must complete all of the program assessments at a satisfactory level.

Review the graduation policy for more information.

Secondary Education – Art

The Department of Art and Design, in cooperation with the Department of Curriculum and Instruction, offers an art education teaching field as part of the Master of Science in Education (MSEd) in curriculum and instruction. A jointly advised program ordinarily including at least 15 hours in art will be designed, taking into account each student's background and interests. Throughout the program, the student must consult with the art graduate advisor before registering for any courses in art. Upon completion of the program, the student must have accumulated at least 42 semester hours in art (graduate and undergraduate work combined). Students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in art in order to satisfy degree requirements.

Students must achieve a GPA of at least 3.0 on a 4.0 scale in the art teaching field, as well as an overall GPA of at least 3.0 on a 4.0 scale.

Secondary Education – Biology

The Department of Biological Sciences, in cooperation with the Department of Curriculum and Instruction, offers a biology teaching field as part of the Master of Science in Education (MSEd) in curriculum and instruction. A jointly advised program ordinarily including 15 hours in biology will be designed, taking into account each student's background and interests. Throughout the program, students must be advised by a member of the biology faculty before registering for any biology courses to be applied toward this degree. Upon completion of the program, students must have accumulated at least 42 semester hours in biology (graduate and undergraduate work combined). Students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in biology in order to satisfy degree requirements. Students must achieve a GPA of at least 3.0 on a 4.0 scale in the biology teaching field, as well as an overall GPA of at least 3.0 on a 4.0 scale.

Secondary Education – Chemistry

The Department of Chemistry, in cooperation with the Department of Curriculum and Instruction, offers a chemistry teaching field as part of the Master of Science in Education (MSEd) in curriculum and instruction. A jointly advised program ordinarily including 15 hours in chemistry will be designed, taking into account each student's background and interests. Throughout the program, students must consult the graduate program advisor before registering for any chemistry courses. Upon completion of the program, students must have accumulated at least 42 semester hours in chemistry (graduate and undergraduate course work combined). Students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in chemistry in order to satisfy degree requirements. A student must achieve a GPA of at least 3.2 on a 4.0 scale in chemistry coursework, as well as an average GPA of at least 3.2 on a 4.0 scale in all coursework.

Secondary Education – English Language Arts

The Department of English Language and Literature, in cooperation with the Department of Curriculum and Instruction, offers an English specialization as part of the Master of Science in Education (MSEd) in curriculum and instruction. A jointly advised program ordinarily including 15 hours in English will be designed, taking into account each prospective student's background and interests. Throughout the program, the student must consult with the program advisor in the Department of English Language and Literature before registering for any English courses. Upon completion of the program, students must have accumulated at least 42 semester hours in English (graduate and undergraduate work combined). Students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in English in order to satisfy degree requirements. Students must achieve a GPA of at least 3.0 on a 4.0 scale in coursework in the English language arts teaching field, as well as an overall GPA of at least 3.0 on a 4.0 scale.

Secondary Education – Foreign Languages

Specializations in curriculum and instruction are composed of 15 credit hours. Students should consult with their graduate program advisor to create an individualized specialization.

Secondary Education – History

The Department of Historical Studies, in cooperation with the Department of Curriculum and Instruction in the School of Education, Health and Human Behavior offers a history teaching field specialization as part of the Master of Science in Education (MSEd) in curriculum and instruction. A jointly advised program ordinarily including 15 hours in history will be designed, taking into account each student's background and interests. Throughout the program, the student must consult with the history graduate advisor before registering for any courses in history. Upon completion of the program, students

must have accumulated at least 42 semester hours in history (graduate and undergraduate work combined). Students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in history in order to satisfy degree requirements. A student must achieve a GPA of at least 3.0 on a 4.0 scale in the history teaching field, as well as an overall GPA of at least 3.0 on a 4.0 scale.

Secondary Education – Mathematics

The Department of Mathematics and Statistics, in cooperation with the Department of Curriculum and Instruction, offers a mathematics teaching field as part of the Master of Science in Education (MSEd) in curriculum and instruction. A jointly advised program ordinarily including 15 hours in mathematics will be designed, taking into account each student's background and interests. Throughout the program, students must consult with the graduate program advisor in the Department of Mathematics and Statistics before registering for any mathematics courses. Upon completion of the program, students must have accumulated at least 42 semester hours in mathematics (graduate and undergraduate course work combined). Students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in the mathematics teaching field in order to satisfy degree requirements. Students must achieve a GPA of at least 3.0 on a 4.0 scale in mathematics coursework, as well as a GPA of at least 3.0 on a 4.0 scale in all coursework.

Secondary Education – Physics

Specializations in curriculum and instruction are composed of 15 credit hours. Students should consult with their graduate program advisor to create an individualized specialization.

Curriculum & Instruction with a Specialization in Special Education Requirements

Professional Core (15 hours)

- (3) SPE 511 Individualized Educational Assessment
- (3) SPE 514 Legal Aspects of Special Education
- (3) SPE 522 Instructional Methods for Students with Mild/Moderate Disabilities
- (3) SPE 523 Instructional Methods for Students with Severe Disabilities
- (3) EPFR 515 Issues in learning Theory OR (3) EPFR 520 Analysis of Educational issues: Philosophical-Historical Foundations OR (3) EPFR 521 Analysis of Educational Issues: Socio-Cultural Foundations

Research Sequence including Final Project (6 hours)

- (3) SPE 500 Research in Special Education
- (3) SPE 595 Action Research in Special Education
- Electives (15 hours)

Electives (15 hours)

See the Curriculum & Instruction curriculum listing for information on the electives required to complete the degree.

Diversity Equity Education

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- GPA of 3.0 or above (A=4.0) during their last two years of undergraduate work. (The undergraduate GPA requirement may be waived for students who have received in more recent graduate coursework a GPA that demonstrates potential for success.)
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A list of professional experiences
- A written statement of purpose
- An interview may also be requested. Applicants may arrange for an appeal interview with the Admissions Committee if admission is denied.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

How to Apply

This program is open to enrollment at any time during the school year. Interested individuals are encouraged to contact the Graduate Program Director.

Required Credit Hours/Tuition and Fees

- 33
- Visit the Paying for College website for detailed tuition information

Program of Study

Thirty-three semester hours of graduate credit are required for a Master of Science in education with a major in diversity and equity in education.

Required Foundational Courses - 12 Hours

- EPFR 502 Qualitative Inquiry in Education
- EPFR 520 Analysis of Educational Issues: Philosophic-historic Perspectives
- EPFR 521 Analysis of Educational Issues: Socio-cultural Perspectives
- EPFR 523 Equity and Access in Education

Education Focus Electives - 6 Hours

(Choose two for a total of six hours. Note that instead of education focused electives, students in the diversity training area of emphasis will take two courses from the cultural diversity list instead.)

- EPFR 451 Gender and Education
- EPFR 515 Issues in Learning Theory
- EPFR 563 Special Topics in Foundations of Education
- CI 563 Curriculum Models
- ENG 470 Methods and Materials for K-12 ESL Teaching
- ENG 472 Assessment and Testing in ESL
- ENG 570 Teaching African-American Oral and Written Literature
- ENG 578 Women, Language and Pedagogy
- ENG 581 Topics in Teaching English (when appropriate, must be approved by advisor)

Area of Emphasis - 9 Hours

Choose one of the following:

- Cultural Diversity
- Diversity Training
- English as a Second Language
- Gender and Education

Final Project - 6 Hours

- EPFR 575

The final project sequence is completed over two semesters.

Degrees Available at SIUE

- Master of Science in Education

Areas of Emphasis

- Cultural Diversity
- Diversity Training
- English as a Second Language
- Gender and Education

Cultural Diversity

9 credit hours (select 3 courses)

- ACS 511 (Seminar in Intercultural Communication)
- ACS 509 (Special Topics in Communication Theory and Research) (when appropriate, must be approved by advisor)
- ENG 526 (Studies in African-American Texts)
- ENG 570 (Teaching African-American Oral and Written Literature)
- ENG 416 (Language and Society)
- ENG 474 (Bilingualism and Bilingual Education)
- ENG 477 (Morrison)
- ENG 478 (Studies in Women, Language and Literature)
- ENG 578 (Women, Language, and Pedagogy)
- ENG 581 (Topics in Teaching English) when appropriate, must be approved by adviser
- EPFR 451 (Gender and Education)
- GEOG 401 (Geography of Development)
- GEOG 405 (Geography of Food)
- GEOG 406 (Political Geography)
- GEOG 500 (Seminar in Cultural Geography)
- HIST 423b (Native Americans from 1840 to the Present)
- HIST 440 (Women in American Social History)
- HIST 442 (The Black Urban Experience)
- HIST 460 (History of Mexico)
- POLS 440 (African American Politics)
- POLS 441 (Women and Politics in America)
- POLS 449 (Topics in American Politics)
- POLS 459 (Topics in Conservative Politics)
- POLS 479 (Topics in International Relations)
- PSYC 407 (Multicultural Issues in Psychology)
- SOC 421 (Individual and Society)
- SOC 440 (Sociology of Popular Culture)
- SOC 444 (Gender, Ethnicity, and Class in the Workplace)
- SOC 470 (Sociology of Deviance)
- SOC 502 (Seminar in Intergroup Relations)
- SOC 542 (Seminar in Gender and Gender Inequality)
- SOC 590 (Special Topics) (when appropriate, must be approved by advisor)

Diversity Training

9 credit hours (choose 3 classes)

- IT 486 (Web Design for Instructors)
- IT 505 (Needs Assessment and Program Evaluation) IT 510 (Instructional Systems Design)
- IT 567 (Online Teaching Tools)
- IT 568 (Design and Development of Online Lessons, Modules, and Courses)
- IT 569 (Facilitating Online Classrooms)

English as a Second Language

9 credit hours (select 3 courses)

- ENG 400 (Principles of Linguistics)
- ENG 409 (Syntactic Analysis)
- ENG 416 (Language and Society)
- ENG 468 (Second Language Acquisition)
- ENG 470 (Methods and Materials for K-12 ESL Teaching)
- ENG 472 (Assessment and Testing in ESL)
- ENG 474 (Bilingualism and Bilingual Education)

Gender and Education

9 credit hours (choose 3 classes)

- EPFR 451 (Gender and Education)
- ENG 478 (Studies in Women, Language, and Literature)
- ENG 578 (Women, Language, and Pedagogy)
- SOC 444 (Gender, Ethnicity, and Class in the Workplace)
- SOC 542 (Seminar in Gender and Gender Inequality)
- HIST 440 (Women in American Social History)
- POLS 441 (Women and Politics in America)

Graduation Requirements

Candidates must submit a project proposal for

approval by a project committee, carry out the proposed project, submit a written report, and complete an oral defense of their project.

Review the graduation policy for more information.

DNP Psychiatric Mental Health

Degrees Available at SIUE

- Doctor of Nursing Practice (DNP)
  - BSN to DNP Option
  - Post-Master's DNP Option (for students with current family nurse practitioner certification)

Specialization

- Psychiatric Mental Health Nurse Practitioner

Certificate

- Post-Master's Certificate (for students with current family nurse practitioner certification)

Graduation Requirements

Doctoral students in the psychiatric mental health nurse practitioner option must complete all courses with a GPA of 3.0/4.0, which includes successful completion of all clinical practicum experiences. Psychiatric mental health nurse practitioner students must also successfully complete a DNP project.

Psychiatric Mental Health Nurse Practitioner BSN to DNP

Required Credit Hours/Tuition and Fees

- 62
- Visit the Paying for College website for detailed tuition information

Admission Requirements

- Complete a NursingCAS application prior to the established deadline
- Submission of all postsecondary academic transcripts to NursingCAS
- A degree in nursing from a CCNE or ACEN accredited program. Graduates from non-ACEN or CCNE accredited programs may be evaluated on an individual basis. Please contact the School of Nursing for more information.
- Minimum undergraduate nursing GPA of 3.0 on a 4.0 scaleSubmission of a resume or curriculum vitae to NursingCAS
- Submission of a personal statement to NursingCAS
- Submission of three professional reference forms via NursingCAS
  - One must be from your current manager
  - Two preferably from a nurse holding a graduate degree in nursing or a related field

Admission and Enrollment Requirements

- Successful completion of an applicant interview (invitation only)
- Bachelor of Science in nursing from a CCNE or ACEN accredited program prior to program enrollment. Graduates from non-ACEN or -CCNE accredited programs will be considered under certain circumstances. Please contact the School of Nursing for more information.
- Current unencumbered RN licensure in the state where you plan to complete your practicum experience.
  - Please note: If you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.
- A minimum of one year of full-time work experience or its part-time equivalent (1,872 hours) prior to enrollment in the first specialization clinical course.
- Minimum undergraduate nursing GPA of 3.0/4.0
- Preferred minimum undergraduate science GPA of 3.0 on a 4.0 scale.
- Preferred minimum overall undergraduate GPA of 3.0 on a 4.0 scale.
- Successful completion of an undergraduate statistics course with a grade of C or better.
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, to be performed prior to enrollment in the program.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu for additional questions or to check on the status of an application.

Application Deadline

The application deadline is October 15 for spring applicants and February 1 for fall applicants. Applications may still be accepted after these deadlines if space allows.

Graduation Requirements

Doctoral students in the psychiatric mental health nurse practitioner option must complete all courses with a GPA of 3.0/4.0, which includes successful completion of all clinical practicum experiences. Psychiatric mental health nurse practitioner students must also successfully complete a DNP project.

Retention

Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of A or B. Students who obtain a course grade of D or F in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course. Students may only earn one course grade of C and stay enrolled in graduate nursing programs. If a second course grade of C is earned, students are automatically removed from the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied toward this exclusion policy.

Exit Requirements

Doctoral students in the School of Nursing's psychiatric mental health nurse practitioner specialization must complete all courses with a GPA of 3.0/4.0, which includes successful completion of all clinical practicum experiences. Psychiatric mental health nurse practitioner students must also successfully complete a DNP project.

Curriculum

BSN to DNP Option
Fall Start, Standard Progression

Year 1 (Semester 1)

(4) NURS 514 Advanced Human Physiology
(3) NURS 600 Theory Guided Practice
7-Total Credits

Year 1 (Semester 2)

(4) NURS 515 Advanced Human Pathophysiology
(3) NURS 516 Pharmacology for APNs
(3) NURS 570 Health Promotion
10-Total Credits

Year 1 (Semester 3)

(3) PAPA 561 Biostats/Epi
(3) NURS 604 Evaluating Evidence for Improving Practice
(1) NURS 695a Introduction to DNP Projects
7-Total Credits

Year 2 (Semester 1)

(3) NURS 513 Advanced Health Assessment and Practicum
(3) NURS 640 Neurobiology and Clinical Psychopharmacology
(3) NURS 601 Genomics and Ethics
9-Total Credits

Year 2 (Semester 2)

(3) NURS 620 Health Care Informatics
(3) Psychiatric Interviewing for Nurse Practitioners
(1) NURS 697a Doctoral Project Design and Management I
(1) NURS 697b Doctoral Project Design and Management II
8-Total Credits

Year 2 (Semester 3)

(5) NURS 642 Psychiatric Mental Health I
(3) NURS 697c Doctoral Project Design and Management III
8-Total Credits

Year 3 (Semester 1)

(5) NURS 643 Psychiatric Mental Health II
(1) NURS 697d Doctoral Project Design and Management IV

6-Total Credits

Year 3 (Semester 2)

(3) NURS 644 Advanced Psychiatric Mental Health Role Synthesis
(3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
(1) NURS 697e Doctoral Project Design and Management V
7-Total Credits

Total Hours 62

Tuition and Fees

Estimated Tuition and Fees 2025-2026

Semester (hours)	Tuition	Fees	Total
Fall, Year 1 (8 hours)	$5,600	$918	$6,518
Spring, Year 1 (9 hours)	6,300	1,033	7,333
Summer, Year 1 (7 hours)	4,900	984	5,884
Fall, Year 2 (9 hours)	6,300	1,093	7,393
Spring, Year 2 (8 hours)	5,600	1,060	6,660
Summer, Year 2 (8 hours)	5,600	978	6,578
Fall, Year 3 (6 hours)	4,200	749	4,949
Spring, Year 3 (7 hours)	4,900	864	5,764
Total (62)	**$ 43,400**	**$7,680**	**$ 51,080**

Tuition is $700/credit hour and general student fees are $114.80/credit hour based on 2025-2026 rates. Program fees and course-specific fees may also be assessed and are included in the estimates above. Rates beyond summer 2026 are not yet approved and are subject to change. Rates for future terms are provided only as an estimate. DNP tuition is a specialized tuition rate that all students pay regardless or residency.

Psychiatric Mental Health Nurse Practitioner Post-Master's Certificate

Students must have a master's degree with a family nurse practitioner specialization

Required Credit Hours/Tuition and Fees

- 19
- Visit the Paying for College website for detailed tuition information

Admission Requirements

- Complete a NursingCAS application prior to the established deadline
- Submission of all postsecondary academic transcripts to Nursing CAS
- Applicant must hold a master's or DNP degree and be certified as a family nurse practitioner
- Minimum cumulative master's GPA of 3.0 on a 4.0 scale
- Submission of proof of current unencumbered RN licensure to NursingCAS
- Submission of family nurse practitioner certification to NursingCAS
- Submission of a resume or curriculum vitae to NursingCAS
- Submission of a personal statement to NursingCAS
- Submission of three reference forms via NursingCAS
  - One must be from your current manager
  - Two others preferably from nurses holding a graduate degree in nursing or a related field

Admission and Enrollment Requirements

- Successful completion of an applicant Interview (invitation only)
- Master’s or DNP degree and be certified as a family nurse practitioner
- Minimum cumulative master’s GPA of 3.0 on a 4.0 scale
- Current unencumbered APRN license in the state where you plan to complete your practicum

experience.
    - Please note: If you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, to be performed prior to enrollment in the program.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu for additional questions or to check the status of their application.

Graduation Requirements

Doctoral students in the psychiatric mental health nurse practitioner option must complete all courses with a GPA of 3.0/4.0, which includes successful completion of all clinical practicum experiences.

Curriculum

Post-Master's Certificate Option for Family Nurse Practitioners
Fall Start, Slow Progression

Year 1 (Semester 1)

(3) NURS 641 Psychiatric Interviewing for Nurse Practitioners

Year 1 (Semester 2)

(3) NURS 640 Neurobiology and Clinical Psychopharmacology

Year 1 (Semester 3)

(5) NURS 642 Psychiatric Mental Health I (180 clinical hours)

Year 2 (Semester 1)

(5) NURS 643 Psychiatric Mental Health II (180 clinical hours)

Year 2 (Semester 2)

(3) NURS 644 Advanced Psychiatric Mental Health Role Synthesis (180 clinical hours)
Total Hours 19
Total Clinical Hours 540

Tuition and Fees

Estimated Tuition and Fees 2026-2027

Semester (hours)	Tuition	Fees	Total
Fall, Year 1 (6 hours)	$2,306	$789	$3,095
Spring, Year 1 (5 hours)	1,922	694	2,616
Summer, Year 1 (5 hours)	1,922	694	2,616
Fall, Year 2 (3 hours)	1,153	464	1,617
Total (19)	**$ 7,303**	**$2,641**	**$9,944**

Tuition is $700/credit hour and general student fees are $114.80/credit hour based on 2026-2027 rates. Program fees and course-specific fees may also be assessed and are included in the estimates above. Rates beyond summer 2027 are not yet approved and are subject to change. Rates for future terms are provided only as an estimate. DNP tuition is a specialized tuition rate that all students pay regardless of residency.

Post-Master's DNP With Psychiatric Mental Health Nurse Practitioner Specialty Training

Students must have a master's degree with a family nurse practitioner specialization, meet the criteria of the post-master's DNP and have a graduate-level nursing theory course.

Required Credit Hours/Tuition and Fees

- 43
- Visit the Paying for College website for detailed tuition information

Admission Requirements

- Complete a NursingCAS application prior to the established deadline
- Submission of all postsecondary academic transcripts to NursingCAS
- Applicant must hold a Master of Science in nursing and be certified as a family nurse practitioner
- Minimum cumulative master's GPA of 3.0 on a 4.0 scale
- Submission of proof of current unencumbered APRN licensure
- Submission of a resume or curriculum vitae to NursingCAS
- Submission of a personal statement to NursingCAS
- Submission of three reference forms via NursingCAS
  - One must be from your current manager
  - Two preferably from nurses holding a graduate degree in nursing or a related field

Admission and Enrollment Requirements

- Successful completion of an applicant interview (invitation only)
- Master of Science in nursing and be certified as a family nurse practitioner
- Minimum cumulative master’s GPA of 3.0 on a 4.0 scale
- Current unencumbered APRN licensure in the state where you plan to complete your practicum experience.
  - Please note: If you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.
- Successful completion of graduate level statistics course with a grade of B or better within six years
- Successful completion of a graduate level nursing theory course
- Successful completion of a drug screen and criminal background check, as specified by the School of Nursing, to be performed prior to enrollment.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu for additional questions or to check the status of their application.

Application Deadline

The application deadline is October 15 for spring applicants and February 1 for fall applicants. Applications may still be accepted after these deadlines if space allows.

Graduation Requirements

Doctoral students in the psychiatric mental health nurse practitioner option must complete all courses with a GPA of 3.0/4.0, which includes successful completion of all clinical practicum experiences. Psychiatric mental health nurse practitioner students must also successfully complete a DNP project.

Curriculum

Post-Master's DNP Option for Family Nurse Practitioners
Fall Start, Slow Progression

Year 1 (Semester 1)

(3) NURS 641 Psychiatric Interviewing for Nurse Practitioners
(3) NURS 604 Evaluating Evidence for Improving Practice/Health Care Outcomes
6-Total Credits

Year 1 (Semester 2)

(3) NURS 640 Neurobiology and Clinical Psychopharmacology
(3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
6-Total Credits

Year 1 (Semester 3)

(3) NURS 617 Advanced Applications of Epidemiology in Practice

Year 2 (Semester 1)

(1) NURS 695a Introduction to DNP Projects
(3) NURS 601 Studies in Genomics and Ethics
4-Total Credits

Year 2 (Semester 2)

(2) NURS 695p Doctoral Practice Project (phase a,b)
(5) NURS 642 Psychiatric Mental Health I
7-Total Credits

Year 2 (Semester 3)

(2) NURS 695p Doctoral Practice Project (phase c)
(5) NURS 643 Psychiatric Mental Health II
7-Total Credits

Year 3 (Semester 1)

(3) NURS 620 Health Care Informatics
(3) NURS 644 Advanced Psychiatric Mental Health Role Synthesis
6-Total Credits

Year 3 (Semester 2)

(4) NURS 695p Doctoral Practice Project (phase d,e)

Total Hours 43
Total Clinical Hours 540

Immersion Experience

Students who are admitted to the program attend a three-day immersion the first year and a two-day immersion the second year. Attendance is mandatory for these two immersions. Additionally, students may have a required meeting for the oral presentation of their final DNP practice project.

Tuition and Fees

Estimated Tuition and Fees 2026-2027

Semester (hours)	Tuition	Fees	Total
Fall, Year 1 (7 hours)	$4,900	$1,084	$5,984
Spring, Year 1 (8 hours)	5,600	918	6,518
Summer, Year 1 (10 hours)	7,000	1,268	8,268
Fall, Year 2 (11 hours)	7,770	1,383	9,083
Spring, Year 2 (7 hours)	4,900	924	5,824
Total (43)	**$ 30,100**	**$5,577**	**$35,677**

Tuition is $700/credit hour and general student fees are $114.80/credit hour based on 2026-2027 rates. Program fees and course-specific fees may also be assessed and are included in the estimates above.

Rates beyond summer 2027 are not yet approved and are subject to change. Rates for future terms are provided only as an estimate. DNP tuition is a specialized tuition rate that all students pay regardless of residency.

Doctor of Nursing Practice

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- A master's degree in nursing or a bachelor's degree in nursing and a master's degree appropriate to their advance nursing practice role
- Minimum cumulative master's GPA of 3.0 on a 4.0 scale
- Submission of a resume or curriculum vitae
- Submission of personal statement about a potential DNP project idea that is patient or practice focused and their goals for the DNP program
- Submission of three(3) reference forms
  - One must be from your current manager
  - Two preferably from nurses holding a graduate degree in nursing or a related field

Admission and Enrollment Requirements

- The applicant must hold a Master of Science in nursing as an advanced practice nurse or have a Bachelor of Science in nursing and hold a master's degree appropriate to their advance nursing practice role such as MPH, MHA, MPA, MS, etc. Nurses with degrees from nurse educator programs may be considered for admission if their current primary nursing role is healthcare system based (i.e., patient educator for specialty units, clinical educator for hospital, administrator of healthcare systems based education, etc.)
- Minimum cumulative master's GPA of 3.0 on a 4.0 scale
- Successful completion of a graduate-level statistics course with a grade of B or better within six years
- Current unencumbered RN licensure in the state where you plan to complete any practicum experience.
  - Please note: If you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.
- Successful completion of an applicant interview (invitation only)
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, prior to enrollment in the program.

Program application materials may be uploaded during the application process, but official transcripts must be sent electronically to siueapps@siue.edu directly from the institution or mailed to:

SIUE Graduate and International Admissions
Campus Box 1047
Edwardsville, IL 62026-1047

Test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu to check the status of their application.

Application Deadline

The priority application deadline is February 1 for summer applicants, June 1 for fall applicants and November 1 for spring applicants. Applications may still be accepted after these deadlines if space allows.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Sample Curriculum (subject to change)

Year 1 (Fall Semester)

(3) N600 Theory Guided Practice
(3) N604 Evaluating Evidence for Improving Practice/Healthcare Outcomes
(1) N695a Introduction to DNP Projects
7 - Total Credits

Year 1 (Spring Semester)

(3) N606 Leadership and Health Policy for Advanced Nursing Practice
(3) Approved Elective
(2) N695p DNP Project (completion of Phase A and B)
8 - Total Credits

Year 1 (Summer Semester)

(3) N617 Advanced Applications of Epidemiology in Practice
(2) N695p DNP Project (completion of Phase C)
5 - Total Credits

Year 2 (Fall Semester)

(3) N601 Ethics Studies for Advanced Nursing Practice
(3) N620 Healthcare Informatics
6 - Total Credits

Year 2 (Spring Semester)

(4) N695p DNP Project (completion of Phase D and E)
4 - Total Credits

Total Hours 30

Immersion Experiences

DNP students are asked to attend an immersion event each August. This event generally occurs during the first two-to-three days of the fall semester.

School of Nursing Retention Policy

Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of course work, defined as obtaining a course grade of A or B. Students who obtain a course grade of D or F in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course. Students may only earn one course grade of C and stay enrolled in graduate nursing programs. If a second course grade of C is earned, students are automatically removed from the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied towards this exclusion policy.

Degrees Available at SIUE

- Post-Master's Doctor of Nursing Practice (DNP)

Graduation Requirements

Students must successfully complete all coursework and a final doctoral project. Because the American Association of Colleges of Nursing has mandated that DNP graduates complete at least 1,000 hours of practice post-baccalaureate as part of a supervised academic program, master's degree transcripts will be evaluated individually, with a maximum of 500 clinical hours from advanced practice specialization programs counting toward the total 1,000 required hours. Deficit practice hours will be completed in the program.

Admission Requirements

- Complete a NursingCAS application prior to the established deadline
- Submission of all postsecondary academic transcripts to NursingCAS
- A degree in nursing from a CCNE or ACEN accredited program. Graduates from CCNE or ACEN accredited programs may be evaluated on an individual basis. Please contact the School of Nursing for more information.
- Minimum undergraduate nursing GPA of 3.0 on a 4.0 scale
- Submission of a resume or curriculum vitae to NursingCAS
- Submission of a personal statement to NursingCAS
- Submission of three professional reference forms via NursingCAS
  - One must be from your current manager
  - Two preferably from a nurse holding a graduate degree in nursing or a related field

Admission and Enrollment Requirements

- Successful complete of an applicant interview (invitation only)
- Bachelor of Science in nursing from a CCNE- or ACEN-accredited program prior to enrollment.

Graduates from non-ACEN or CCNE accredited programs will be considered under certain circumstances. Please contact the School of Nursing for more information.
- Current unencumbered RN licenses in the state where you plan to complete your practicum experience.
  - Please note: If you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.

- A minimum of one year of full-time professional nursing practice experience or its part-time equivalent (1,872 hours) prior to enrollment in the first specialization clinical course.
- Minimum undergraduate nursing GPA of 3.0 on a 4.0 scale.
- Preferred minimum undergraduate science GPA of 3.0 on a 4.0 scale.
- Preferred minimum overall undergraduate GPA of 3.0 on a 4.0 scale.
- Successful completion of an undergraduate statistics course with a grade of C or better.
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, to be performed prior to enrollment in the program

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu for additional questions or to check on the status of their application.

Accelerated Combined Degrees

Current SIUE nursing students (traditional undergraduate, post-baccalaureate accelerated BS, and accelerated RN to BS) may apply for the accelerated option to earn graduate-level credit for courses taken during their undergraduate program.

Application Deadline

The application deadline is October 15 for spring applicants and February 1 for fall applicants. Applications may still be accepted after these deadlines if space allows.

Required Credit Hours/Tuition and Fees

- 66
- Visit the Paying for College website for detailed tuition information

Full-Time Sample Curriculum*

*Part-Time Sample Curriculum Available Upon Request

Year 1 (Fall Semester)

(4) NURS 514 Advanced Human Physiology
(3) NURS 600 Theory Guided Practice
7 - Total Credits

Year 1 (Spring Semester)

(4) NURS 515 Advanced Human Pathophysiology
(3) NURS 516 Pharmacology for APNs
(3) NURS 570 Health Promotion
10 - Total Credits

Year 1 (Summer Semester)

(3) PAPA 561 Biostats/Epi
(3) NURS 604 Evaluating Evidence for Improving Practice
(1) NURS 695a Introduction to DNP Projects
7- Total Credits

Year 2 (Fall Semester)

(3) NURS 513 Advanced Health Assessment and Practicum
(3) NURS 520 Diagnostic Tests and Interpretations and Procedures
(3) NURS 601 Genomics and Ethics
9 - Total Credits

Year 2 (Spring Semester)

(3) NURS 620 Health Care Informatics
(4) NURS 571 Advanced Management of Adult Health in Primary Care 1 and Practicum
(1) NURS 697a Doctoral Project Design and Management I
(1) NURS 697b Doctoral Project Design and Management II

9 - Total Credits

Year 2 (Summer Semester)

(3) NURS 573 Advanced Management of Women's Health
and Practicum
(3) NURS 697c Doctoral Project Design and Management III
6 - Total Credits

Year 3 (Fall Semester)

(4) NURS 572 Advanced Management of Adult Health in Primary Care II and Practicum
(4) NURS 576 Advanced Management of Pediatric Client and Practicum
(1) NURS 697d Doctoral Project Design and Management IV
9 - Total Credits

Year 3 (Spring Semester)

(5) NURS 677 Advanced Practicum and Role Synthesis
(3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
(1) NURS 697e Doctoral Project Design and Management V
9 - Total Credits

Total Hours 66

School of Nursing Retention Policy

Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of course work, defined as obtaining a course grade of A or B. Students who obtain a course grade of D or F in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course. Students may only earn one course grade of C and stay enrolled in graduate nursing programs. If a second course grade of C is earned, students are automatically removed from the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied toward this exclusion policy.

Degrees Available at SIUE

- Doctor of Nursing Practice (DNP)

Specialization

- Family Nurse Practitioner

Undergraduate to Graduate Nursing Options

Qualified SIUE nursing students can apply to enroll in graduate-level courses taken during the following undergraduate programs:

- Nursing (Traditional)
- Accelerated RN-BS
- Accelerated BS in Nursing as Second Degree

Graduation Requirements

Doctoral students in the School of Nursing's family nurse practitioner option must complete all courses with a GPA of 3.0/4.0, which includes successful completion of all clinical practicum experiences. Family nurse practitioner students must also successfully complete a DNP project.

Application Requirements

- Complete a NursingCAS application prior to the established deadline
- A degree in nursing from a CCNE or ACEN accredited program. Graduates from non- CCNE or ACEN accredited programs may be evaluated on an individual basis. Please contact the School of Nursing for more information
- An unencumbered license as a registered professional nurse and/or an advanced practice registered nurse (APRN) in the United States or its territories or protectorates
- Submission of all postsecondary academic transcripts to NursingCAS
- Minimum undergraduate nursing GPA of 3.0 on a 4.0 scale.
- Submission of a resume or curriculum vitae (CV) to NursingCAS
- Submission of a personal statement to NursingCAS
- Submission of three professional reference forms via NursingCAS
  - One must be from the supervisor of your most

recent critical care setting.
    - One must be from a nurse holding a graduate degree in nursing or a related field.

Admission and Enrollment Requirements

- Successful completion of an applicant interview (invitation only)
- Bachelor of Science or graduate degree in nursing from a CCNE or ACEN accredited program prior to program enrollment*. Graduates from non-CCNE or ACEN accredited programs may be evaluated on an individual basis. Please contact the School of Nursing for more information.
- An unencumbered license as a registered professional nurse and/or an APRN in the United States or its territories or protectorates
    - Unencumbered Illinois nursing license required prior to enrollment* in the nurse anesthesia educational program
    - Residents of non-compact states:
        - Unencumbered Missouri nursing license required prior to enrollment* in the nurse anesthesia educational program
    - Residents of compact states:
        - Unencumbered Nurse Licensure Compact (NLC) license required prior to enrollment* in the nurse anesthesia educational program. Should residence change to a non-compact state following enrollment, an unencumbered Missouri nursing license must be obtained.
    - A minimum of one year of recent full-time work experience, or its part-time equivalent (1,876 hours), as a registered nurse in a critical care setting prior to enrollment* in the nurse anesthesia educational program.
        - Critical care experience must be obtained in a critical care area within the United States, its territories or a U.S. military hospital
        - A critical care area is defined as one where, on a routine basis, the registered professional nurse manages one or more of the following: invasive hemodynamic monitors (e.g., pulmonary artery, central venous pressure, and arterial catheters), cardiac assist devices, mechanical ventilation, and vasoactive infusions
    - Successful completion of the following undergraduate course prerequisites with a B or better prior to enrollment* in the nurse anesthesia educational program:
        - Physics (minimum 3 credit hours; no lab required)
        - Organic chemistry, biochemistry, or organic and biochemistry for health professionals (minimum 3 credit hours; no lab required)
- Successful completion of an undergraduate statistics course with a grade of C or better
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, to be performed prior to enrollment* in the nurse anesthesia educational program

* Program enrollment – date defined in the acceptance letter but generally two weeks prior to the initiation of the summer term each May.

Preferred Applicant Benchmarks

Applicants not meeting the preferred benchmarks may be considered less competitive.

- Two or more years of current full-time work experience as a registered nurse in a high acuity adult intensive care unit (ICU) is preferred prior to enrollment* in the nurse anesthesia educational program
- An undergraduate nursing GPA of 3.5 on a 4.0 scale is preferred
- An undergraduate science GPA of 3.25 on a 4.0 scale is preferred
- An overall undergraduate GPA of 3.5 on a 4.0 scale in preferred
- A CCRN or TCRN certification is not required but highly recommended
- A demonstrated history of experience in leadership roles, service to the community, and participation in scholarly activities or quality improvement projects is preferred

Application Deadline

The application deadline is **May 1** for the class entering in the following May.

The program generally interviews candidates in July and admits them to the School of Nursing with notification in August to enroll in May of the following year. Once accepted, a non-refundable advance deposit fee of $1,000 is required to secure a

seat in the nurse anesthesia cohort (applied towards future tuition). Payment is due within two weeks of admission to the School of Nursing to validate the candidate's commitment to enroll in the program.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu for additional questions or to check on the status of an application.

Transfer Credits

The SIUE nurse anesthesia program may allow incoming students to transfer a maximum of 15 credits of prior coursework. All such work must be approved by the assistant dean of graduate programs in the School of Nursing. Credit is granted only for courses bearing a grade of B or better. Except where stated herein, the SIUE nurse anesthesia program follows all other policies and procedures of SIUE as described in policy 1J6 and on the graduate student records website.

If an applicant has previously been enrolled in a nurse anesthesia program, he/she can apply; however, the applicant must disclose any prior program enrollment during the application process by submitting a formal letter to the program director.

Admitted Students

Graduate students admitted to the School of Nursing may take up to four classes or 15 credit hours as an unclassified graduate nursing student at SIUE prior to enrolling in the full-time nurse anesthesia specialization. Successful completion of coursework with a B or better will be applied towards the degree program. The following classes may be available to take as an unclassified graduate student:

- (3) NURS 516 Pharmacology for Advanced Nursing Practice
- (3) NURS 604 Evaluating Evidence for Improving Practice/Healthcare Outcomes
- (3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
- (3) NURS 600 Theory Guided Practice

International Students

The SIUE International Student and Scholar Services Office is the key liaison to the U.S. Citizenship and Immigration Services (USCIS) and provides necessary up-to-date immigration information so you can responsibly maintain your legal status in the U.S. and at SIUE. Additional information and resources for international students can be found on the International Student and Scholar Services website.

Required Credit Hours/Tuition and Fees

- 80
- Visit the Paying for College website for detailed tuition information

Sample Curriculum (subject to change)

Year 1 (Summer Semester)

(3) NURS 564 Chemistry and Physics Applied to Anesthesia
(3) NURS 600 Theory Guided Practice
(3) PAPA 561 Biostatistics/Epidemiology
11 - Total Credits

Year 1 (Fall Semester)

(4) NURS 514 Advanced Human Physiology
(4) NURS 515 Advanced Human Pathophysiology
(3) NURS 516 Pharmacology for Advanced Nursing Practice
(3) NURS 604 Evaluating Evidence for Improving Practice/Healthcare Outcomes
12 - Total Credits

Year 1 (Spring Semester)

(3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
(3) NURS 513 Advanced Health Assessment & Practicum
(5) NURS 529 Orientation to Nurse Anesthesia Practicum
(3) NURS 563 Pharmacology Related to Anesthesia
14 - Total Credits

Year 2 (Summer Semester)

(5) NURS 565a Theoretical Foundations of Nurse Anesthesia I

(1) NURS 565b Clinical Practicum in Nurse Anesthesia I
(1) NURS 695a Introduction to DNP Projects
7 - Total Credits

Year 2 (Fall Semester)

(5) NURS 566a Theoretical Foundations of Nurse Anesthesia II
(2) NURS 566b Clinical Practicum in Nurse Anesthesia II
(1) NURS 697a Doctoral Project Design and Management I
8 - Total Credits

Year 2 (Spring Semester)

(5) NURS 567a Theoretical Foundations of Nurse Anesthesia III
(2) NURS 567b Clinical Practicum in Nurse Anesthesia III
(1) NURS 697b Doctoral Project Design and Management II
8 - Total Credits

Year 3 (Summer Semester)

(4) NURS 667a Professional Role: Ethical, Legal, and Systemic Issues in Anesthesia Practice
(1) NURS 670b Clinical Leadership in Anesthesia Practicum
(3) NURS 697c Doctoral Project Design and Management III
8 - Total Credits

Year 3 (Fall Semester)

(3) NURS 668a Clinical Correlations & Innovations in Anesthesia Practice I
(2) NURS 668b Clinical Practicum in Nurse Anesthesia IV
(1) NURS 697d Doctoral Project Design & Management IV
6 - Total Credits

Year 3 (Spring Semester)

(3) NURS 669a Clinical Correlations & Innovations in Anesthesia Practice II
(2) NURS 669b Clinical Practicum in Nurse Anesthesia V
(1) NURS 697e Doctoral Project Design & Management V
6 - Total Credits

Total Hours 80

School of Nursing Retention Policy

Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of A or B. Students who obtain a course grade of D or F in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course. Students may only earn one course grade of C and stay enrolled in graduate nursing programs. If a second course grade of C is earned, students are automatically removed from the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied toward this exclusion policy.

Degrees Available at SIUE

- Doctor of Nursing Practice (DNP)

Specializations

- Nurse Anesthesia

Graduation Requirements

Doctoral students in the School of Nursing’s Nurse Anesthesia option must complete all courses with a GPA of 3.0/4.0, which includes successful completion of all clinical practicum experiences. Nurse anesthesia students must also successfully complete a DNP project.

Educational Administration

Admission Requirements

Master of Science in Education

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Completion of a bachelor's degree with a minimum GPA of at least a 2.50 on a 4.0 scale
- Proof of Illinois Professional Educator License (PEL) or out of state equivalent
- International Applicants: Proof of English proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- All applicants must show they have at least two years of teaching experience.
- Applicants must hold, or have held a pre-K-12 teaching position for four years to qualify for licensure.

Education Specialist

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Master of Science in Education or its equivalent; a GPA of 3.25 (A=4.0) or higher in graduate study
- Proof of Illinois Professional Educator License (PEL) or out of state equivalent
- International Applicants: Proof of English proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- All applicants must show they have at least two years of teaching experience.
- Applicants must hold, or have held a pre-K-12 teaching position for four years to qualify for licensure.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Candidate Requirements

Students meeting the admission requirements will be given provisional admission allowing them to enroll in EDAD 500: Organization and Administration of Schools. During EDAD 500, students complete the candidate selection process. This process includes:

- Completion of a leadership portfolio summarizing leadership experience and potential for instructional leadership
- Identification of a qualified mentor for internship experiences
- Participation in a selection interview
- An assessment of written communication skills based on a response to a case study

Upon successful completion of EDAD 500 and selection as a candidate, candidates receive full admittance to the program.

Specialist Degree - Principal

Required Credit Hours/Tuition and Fees

- 33
- Visit the Paying for College website for detailed tuition information

Required Courses (33 hours)

Lecture Courses

- EDAD 500-Introduction to School Leadership
- EDAD 520-School Law
- EDAD 525a-Instructional Leadership and Supervision: Theory and Research
- EDAD 530a-Data Driven School Improvement and Accountability: Theory and Research
- EDAD 535a-Curriculum Leadership: Theory and Research
- EDAD 545a-The Principalship: Theory and Research

Field-Based Internship Courses

- EDAD 525b-Instructional Leadership and Supervision: Field Experience
- EDAD 530b-Data Driven School Improvement

and Accountability: Field Experience
- EDAD 535b-Curriculum Leadership: Field Experience
- EDAD 545b-The Principalship: Field Experience
- EDAD 595-Field Study

Master of Science in Education - Principal

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

Required Courses (36 hours)

Lecture Courses

- EDAD 500 (3)–Introduction to School Leadership
- EDAD 520 (3)–School Law
- EDAD 525a (3)–Instructional Leadership and Supervision: Theory and Research
- EDAD 530a (3)–Data Driven School Improvement and Accountability: Theory and Research
- EDAD 535a (3)–Curriculum Leadership: Theory and Research
- EDAD 545a (3)–The Principalship: Theory and Research
- EPFR 501 (3)–Research Methods in Education
- EPFR 521 (3)–Analysis of Educational Issues: Sociocultural Foundations of Education

Field-Based Internship Courses

- EDAD 525b (3)–Instructional Leadership and Supervision: Field Experience
- EDAD 530b (3)–Data Driven School Improvement and Accountability: Field Experience
- EDAD 535b (3)–Curriculum Leadership: Field Experience
- EDAD 545b (3)–The Principalship: Field Experience

Degrees Available at SIUE

- Master of Science in Education (MSEd)
- Education Specialist (EdS)
- Principal Preparation Post-Master's Certificate

Online Options

- Principal Preparation
- Principal Preparation - Specialist
- Principal Preparation Post-Master's Certificate

Principal Endorsement

The endorsement option is available to students who already have a master's degree. This option leads to the Principal Endorsement on an Illinois Professional Educator License. Previous coursework may be counted toward endorsement on a case-by-case basis.

Admission

Students seeking an endorsement will apply as an Unclassified Graduate Student.

1. Complete the Unclassified Graduate School application.
2. When asked the reason for applying as an unclassified student, indicate "Professional Endorsement." Then Select "School of Education, Health and Human Behavior" as your area of interest. List "Principal Endorsement" for additional details.
3. Pay the $40 fee.
4. Upload all academic transcripts.
5. Submit a resume and list of licenses and endorsements to Jennifer Werner at jenwern@siue.edu.

Program of Study

Lecture Courses

- EDAD 500 (3) – Introduction to School Leadership
- EDAD 520 (3) – School Law
- EDAD 525A (3) – Instructional Leadership and Supervision: Theory and Research
- EDAD 530A (3) – Data Driven School Improvement and Accountability: Theory and Research
- EDAD 535A (3) – Curriculum Leadership: Theory and Research
- EDAD 545A (3) – The Principalship: Theory and Research

Field-Based Internship Courses

- EDAD 525B (3) – Instructional Leadership and Supervision: Field Experience
- EDAD 530B (3) – Data Driven School Improvement

and Accountability: Field Experience
- EDAD 535B (3) – Curriculum Leadership: Field Experience
- EDAD 545B (3) – The Principalship: Field Experience

Completion Requirements

Opon admission, students must meet with an advisor to be enrolled in EDAD 500. During EDAD 500, students complete the candidate selection process. This process includes:

- Completion of a leadership portfolio summarizing leadership experience and potential for instructional leadership
- Identification of a qualified mentor for internship experiences
- Participation in a selection interview
- An assessment of written communication skills based on a response to a case study.

Upon successful completion of EDAD 500 and selection as a candidate, candidates will be allowed to enroll in the remaining courses for the endorsement.

Graduation Requirements

All candidates must complete a four course field-based internship which is aligned with the National Council for Accreditation of Teacher Education standards, the Interstate School Leaders Licensure Consortium standards, the 36 critical success factors outlined in the Southern Research Education Board's "The Principal Internship: How Can We Get It Right?", the Educational Leadership Constituents Council standards, and the Illinois State Board of Education General Administration Endorsement standards.

The internship is supervised and evaluated by an administrator in the field and a faculty member from the Department of Educational Leadership of SIUE.

All specialist degree candidates are required to complete a field study/research project that is presented to a faculty committee. Specialist degree candidates must have a minimum 3.25 GPA.

All master's candidates must complete a program portfolio.

Review the graduation policy for more information.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- A master of science in education or its equivalent with a GPA of 3.25(A=4.0) or higher in graduate study.
- Proof of Illinois Professional Educator License (PEL) or out of state equivalent
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Applicants for the superintendent program must show they have at least two years full-time administrative or supervisory experience on the following Illinois Credential: General Administrative; Principal; Director of Special Education; or Chief Business Official.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Candidate Requirements

Students meeting the admission requirements will be given provisional admission allowing them to enroll in courses. During the first semester enrolled, students complete the candidate selection process. This process includes: completion of a leadership portfolio summarizing leadership experience and potential for instructional leadership; identification of a qualified mentor for internship experiences; participation in a selection interview; and an assessment of written communication skills based on a response to a case study. Upon selection as a candidate, candidates receive full admittance to the program.

Superintendent

Required Credit Hours/Tuition and Fees

- 33
- Visit the Paying for College website for detailed tuition information

Curriculum (33 hours)

EDAD 555 (3)-Superintendency, District Administration and Governance
EDAD 563 (3)-School and Community Relations
EDAD 565 (3)-School Personnel Administration
EDAD 570 (3)-Leadership Theory and Practice
EDAD 580 (3)-District Program Development
EDAD 585 (3)-School District Business Administration
EDAD 591 (12)-Internship Practicum/Superintendent Internship (Three consecutive semesters totaling one full year)
EDAD 595 (3)-Field Study (from 3-6 hours)

Degrees Available at SIUE

- Education Specialist (EdS)
- Superintendent Post-master's Certificate

Online Options

- Superintendent - Specialist
- Superintendent Post-Master's Certificate

Superintendent Endorsement

The Endorsement option is available to students who already have a specialist degree. This option leads to the Superintendent Endorsement on an Illinois Professional Educator License. Previous coursework may be counted towards the Superintendent Endorsement on a case by case basis.

EDAD 555 (3) - Superintendency, District Administration and Governance
EDAD 563 (3) - School and Community Relations
EDAD 565 (3) - School Personnel Administration
EDAD 570 (3) - Leadership Theory and Practice
EDAD 580 (3) - District Program Development
EDAD 585 (3) - School District Business Administration
EDAD 591 (12) - Internship Practicum/Superintendent Internship (Three consecutive semesters totaling one full year)

Graduation Requirements

All candidates must complete a four course field-based internship experience that spans an entire calendar year. The internship is supervised and evaluated by an administrator in the field and a faculty member of Educational Leadership of Southern Illinois University Edwardsville.

Candidates must complete a field study/research project that is presented to a faculty committee and have a minimum 3.25 GPA.

Review the graduation policy for more information.

Admission Requirements

Master of Science in Education

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Completion of a bachelor's degree with a minimum GPA of at least a 2.50 on a 4.0 scale
- Proof of Illinois Professional Educator License (PEL) or out of state equivalent
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent

Education Specialist

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- A Master of Science in Education or its equivalent with a GPA of 3.25 (A=4.0) or higher in graduate study.
- Proof of Illinois Professional Educator License (PEL) or out of state equivalent
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Applicants must show that they have at least one year teaching experience.
- Applicants must complete an admissions portfolio and a personal interview (or comparable out-of-state equivalent).

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Candidate Requirements

Students meeting the admission requirements will be given provisional admission allowing them to enroll in EDAD 500: Organization and Administration of Schools. During EDAD 500, students complete the candidate selection process. This process includes:

- Completion of a leadership portfolio summarizing leadership experience and potential for instructional leadership
- Identification of a qualified mentor for internship experiences
- Participation in a selection interview
- An assessment of written communication skills based on a response to a case study.

Upon successful completion of EDAD 500 and selection as a candidate, candidates receive full admittance to the program.

Curriculum

Specialist Degree - Teacher Leader

Required Credit Hours/Tuition and Fees

- 33
- Visit the Paying for College website for detailed tuition information

Required courses (33 hours)
Program Admission

- EDAD 500-Introduction to School Leadership

Lecture Courses

- EDAD 525a-Instructional Leadership and Supervision: Theory and Research
- EDAD 530a-Data Driven School Improvement and Accountability
- EDAD 535a-Curriculum Leadership: Theory and Research
- CI 582-Becoming a Teacher Leader: Mentor and Coach
- CI 583-Leadership in Professional Development

Hybrid/Online Courses

- IT 481-Computers in Education: Theory and Practice
- IT 550-Emerging Technologies in Education
- IT 560-Leadership in Educational Technology

Practicum

- EDAD 550-Teacher Leader Practicum

Field Study

- EDAD 595 - Field Study

Master of Science in Education - Teacher Leader

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

Required Courses (36 hours)
Program Admission

- EDAD 500 (3) – Introduction to School Leadership

Lecture Courses

- EPFR 521 (3) – Analysis of Educational Issues: Sociocultural Foundations
- EDAD 525A (3) – Instructional Leadership and Supervision: Theory and Research
- EDAD 530A (3) – Data Driven School Improvement and Accountability: Theory and Research
- EDAD 535A (3) – Curriculum Leadership: Theory and Research
- CI 582 (3) – Becoming a Teacher Leader: Mentor and Coach
- CI 583 (3) – Leadership in Professional

Development

Hybrid/Online Courses

- EPFR 501 (3) – Research Methods
- IT 481 (3) – Computers in Education: Theory and Practice
- IT 550 (3) – Emerging Technologies in Education
- IT 560 (3) – Leadership in Educational Technology

Practicum

- EDAD 550 (3) – Teacher Leader Practicum

Degrees Available at SIUE

- Master of Science in Education (MSEd)
- Education Specialist (EdS)
- Teacher Leader Post-Master's Certificate

Online Options

- Teacher Leader
- Teacher Leader - Specialist
- Teacher Leader Post-Master's Certificate

Teacher Leader Endorsement

The endorsement option is available to students who already have a master's degree. This option leads to the Teacher Leader Endorsement on an Illinois Professional Educator License. Previous coursework may be counted toward endorsement on a case-by-case basis.

Program Admission

- EDAD 500 (3) – Introduction to School Leadership

Lecture Courses

- EDAD 525A (3) – Instructional Leadership and Supervision: Theory and Research
- EDAD 530A (3) – Data-Driven School Improvement and Accountability: Theory and Research
- EDAD 535A (3) – Curriculum Leadership: Theory and Research
- CI 582 (3) – Becoming a Teacher Leader: Mentor and Coach
- CI 583 (3) – Leadership in Professional Development

Hybrid/Online Courses

- IT 481 (3) – Computers in Education: Theory and Practice
- IT 550 (3) – Emerging Technologies in Education
- IT 560 (3) – Leadership in Educational Technology

Practicum

- EDAD 550 (3) – Teacher Leader Practicum

Graduation Requirements

All candidates must complete a field-based practicum supervised and evaluated by an administrator or teacher leader in the field and a faculty member in the Department of Educational Leadership at SIUE.

The internship is supervised and evaluated by an administrator in the field and a faculty member from the Department of Educational Leadership at SIUE.

All candidates are required to complete a field study/research project that is presented to a faculty committee and have a minimum 3.25 GPA.

Review the graduation policy for more information.

Educational Leadership Superintendent

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Master of Science in education or its equivalent
  - GPA of 3.25 or higher on a 4.0 scale in graduate study
  - Hold or have held a position requiring an Illinois Professional Educator License (PEL) or equivalent
- A superintendent specialist degree (within the past 10 years)
- A superintendent's endorsement
- Current resume that clearly indicates:
  - Educational background
  - Diversity of P-12 work experience
  - Progression of P-12 leadership experiences.
- Three letters of reference from administrators or supervisors who have firsthand knowledge of the candidate's professional work. Letters must address:
  - Nature of the relationship with the applicant (at least one is current or past supervisor)
  - Leadership experience
  - Ability to work collaboratively
  - Ability to impact schools to improve student learning
  - Oral and written communication skills
  - Potential to become a transformative educational leader.
- Written responses to three focus questions that consider the goals of the EdD program and preparation for doctoral study.

All requirements will be reviewed by a faculty admissions committee to determine the potential of the candidate to affect school district change.

Please note that due to endorsement requirements, international students are ineligible to receive a student visa for this program.

Official transcripts must be sent electronically to siueapps@siue.edu directly from the institution or mailed to:

SIUE Graduate and International Admissions
Campus Box 1047
Edwardsville, IL 62026

Application Deadline

The priority application deadline for the school/district leadership option is September 15.

Required Credit Hours/Tuition and Fees

- 27
- Visit the Paying for College website for detailed tuition information

Curriculum

Twenty-seven semester hours of graduate credit beyond the specialist's degree are required for the EdD.

Advanced Study and Research

EDAD 603-Foundations of Research in Education
EDAD 600-Proseminar in the Superintendency
EDAD 640-Foundations of Educational Theory
EDAD 660-Politics and Policy-Making in Education
EPFR 605-Qualitative Inquiry-includes field study*
EPFR 601-Quantitative Inquiry
EDAD 690-Research Topics in Educational Leadership
EDAD 698-Doctoral Capstone Research Project (taken twice)

Retention Policy

In addition to the Graduate School Retention Policy (1L2), the program has the following additional Retention Policy:

If a student leaves the Educational Leadership program long enough for their status to become "inactive", they will need to reapply to the program. If they qualify for readmission, instead of being directly admitted, they may be placed on a waiting list until it becomes clear that there is space in the Educational Leadership program for them. Qualified new program applicants may receive space priority over a student who has left the program and then applied for readmission, even if the returning

student's application is received earlier than the new student's application.

Degrees Available at SIUE

- Education Doctorate (EdD)

Graduation Requirements

Qualifying examination for advancement to candidacy: The examination consists of essay questions that address course content. The exam is read by three faculty members and assessed for content and quality. Candidate must pass the examination to advance.

Final Capstone Research Project: The project requires an extensive written document that presents the results of the candidate’s research. An oral presentation and successful defense of the project before a committee of three faculty members is required for program completion. Planning the project occurs in EDAD 690 and the project is carried out, defended, and finalized in EDAD 698.

Educational Leadership

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Master of Science in education or its equivalent
- GPA of 3.25 (A=4.0) or higher in graduate study
- Teaching experience or other relevant experience as approved by the admissions committee
- Current resume that clearly indicates:
  - Educational background (degrees completed)
  - P-12 or other relevant work experience in education
  - Any relevant P-12 or other relevant leadership experiences
- Three letters of reference from administrators or supervisors who have first-hand knowledge of the candidate's professional work. Letters must address:
  - Nature of the relationship with the applicant (at least one letter must be from a current or past supervisor)
  - The applicant's leadership experience
  - Ability to work collaboratively
  - Ability to impact schools to improve student learning
  - Oral and written communication skills
  - Potential to become a transformative educational leader.
- Written responses to three focus questions that consider the goals of the EdD Program and preparation for doctoral study

Please note that as a program with extensive online course requirements, international students are ineligible to receive a student visa for this program.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

All requirements will be reviewed by a faculty admissions committee to determine the potential of the candidate to affect educational improvement.

Required Credit Hours/Tuition and Fees

- 54
- Visit the Paying for College website for detailed tuition information

Curriculum

Fifty-four semester hours of graduate credit beyond the master's degree are required for the EdD.

Required courses (15 semester hours)
EPFR 523 (3) Access and Equity in P-12 Education
EDAD 563 (3) School and Community Relations
EDAD 570 (3) Leadership Theory and Practice
EDAD 580 (3) District Program Development
EPFR 603 (3) Foundations of Research in Education

Electives (15 semester hours)
Students select five of the following courses (or other courses as approved by the program):
CI 510 (3) Analysis of Instruction
CI 511 (3) Differentiated Instruction
CI 563 (3) Curriculum Models
CI 578 (3) Organization and Administration of Literacy Programs
CI 581 (3) Foundations of Teacher Leadership
EDAD 555 (3) Superintendency, District Administration, and Governance
EDAD 565 (3) Personnel Administration
EDAD 585 (3) School District Business Administration
ENG 544 (3) Reading and Writing Pedagogy in TESL
ENG 576 (3) Writing Across the Curriculum
ENG 587 (3) Politics of Composition Pedagogy
SOC 502 (3) Seminar in Intergroup Relations
SOC 542 (3) Seminar in Gender and Gender Inequality
SOC 590 (3) Special Topics (to be approved by advisor)
SPED 514 (3) Legal Aspects of Special Education
SPED 515 (3) Administration and Supervision of Special Education Services
SPED 517 (3) Special Education Finance
Or other electives as approved by program faculty.

Advanced Study and Research
EDAD 600 (3) Professional Seminar in Doctoral Study
EDAD 640 (3) Foundations of Educational Theory
EDAD 660 (3) Politics and Policy-Making in Education
EPFR 601 (3) Quantitative Inquiry
EPFR 605 (3) Qualitative Inquiry-includes field study
EDAD 690 (3) Research Topics in Educational Leadership
EDAD 698 (3, 3) Doctoral Capstone Research Project

NOTES — All required courses (both the initial 15 hours of required courses and the 24 hours of advanced study and research courses) typically meet one evening a week with additional work completed online.

Retention Policy

In addition to the Graduate School Retention Policy (1L2), the program has the following additional Retention Policy:

If a student leaves the Educational Leadership program long enough for their status to become “inactive”, they will need to reapply to the program. If they qualify for readmission, instead of being directly admitted, they may be placed on a waiting list until it becomes clear that there is space in the Educational Leadership program for them. Qualified new program applicants may receive space priority over a student who has left the program and then applied for readmission, even if the returning student's application is received earlier than the new student's application.

Degrees Available at SIUE

- Educational Doctorate (EdD)

Graduation Requirements

Prior to beginning the research sequence (EDAD 690 and 698), students must pass the qualifying examination for advancement to candidacy. The examination consists of essay questions that address course content and is taken after EPFR 605 (before EDAD 690 and 698). The exam is read by faculty and assessed for content and quality. Candidates must pass the examination to advance.
Final Capstone Research Project: The project requires an extensive written document that presents the results of the candidate’s research. An oral presentation and successful defense of the project before a committee of three faculty members is required for program completion. Planning the project occurs in EDAD 690 and the project is carried out, defended, and finalized in EDAD 698.

Electrical And Computer Engineering

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Undergraduate GPA of at least 2.75 (A=4.0) in engineering, mathematics, and physical science courses.
- International Applicants
  - It is highly recommended that GRE scores are submitted.
  - Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Accelerated Combined Degrees: Current SIUE undergraduate students majoring in Computer Engineering or Electrical Engineering may apply for the accelerated option to earn graduate-level credit for courses taken their senior year.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants should normally have a baccalaureate degree in electrical/computer engineering from an ABET-accredited program. Applicants whose undergraduate studies were completed at institutions in countries other than the United States must have a baccalaureate degree in electrical/computer engineering comparable to the United States bachelor's degree.

Applicants with degrees other than a baccalaureate degree in electrical/computer engineering will be considered on an individual basis. Those with baccalaureate degrees in other science and engineering disciplines may be admitted, subject to completion of appropriate undergraduate electrical and computer engineering courses.

In exceptional cases, the graduate admissions committee may consider applicants who meet all Graduate School admission standards but who do not meet certain specified program admission requirements. The committee may consider other evidence that indicates high promise of the applicant's success in the program. Such supportive evidence may include extensive professional experience, published research, patents, or outstanding graduate-level work at another institution.

After admission and before enrolling in any courses, students are required to meet with the graduate program director who appoints, in consultation with the student, an advisory committee suited to each student's background and interests. The chair of the advisory committee serves as the student's academic advisor. Students are urged to file an approved plan of study with their academic advisor by the end of the first term of enrollment in the program.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 33
- Visit the Paying for College website for detailed tuition information

Curriculum

The program of study requires a minimum of 33 semester hours of graduate credit, at least 18 of which must be at the 500-level. Program core requirement specifies at least one course from each of the following two areas:

- Signals and Systems: ECE 532, 535, 539, 563, or 574
- Computer Systems: ECE 538, 577, 581, 582, 584, or 585

In addition, ECE 510 is highly recommended for all graduate students.

Up to six hours may be taken in out-of-department courses. The out-of-department courses can be any graduate-level courses in the School of Engineering,

biological sciences, chemistry, environmental sciences, mathematics and statistics, or physics, or be approved by the advisor.

Thesis and non-thesis options of study are available.

Thesis option

The program consists of the core courses, elective courses, and thesis work in the amount of six credit hours. The student will be guided by the advisor with the assistance and concurrence of the advisory committee. Thesis work involves an intensive research effort and generally requires two semesters to complete.

Non-thesis option

The program consists of the core courses, elective courses, and may include a research project. The research project is a component of any 500-level course approved by the advisory committee. The student will be guided by the advisor with the assistance and concurrence of the advisory committee.

Combined Degree

- Early Entry BS and MS in Electrical and Computer Engineering for SIUE undergraduate students majoring in Computer Engineering or Electrical Engineering

Degrees Available at SIUE

- Master of Science in Electrical and Computer Engineering
- PhD in Engineering Science, a cooperative program with
  SIU Carbondale

Graduation Requirements

When all other program requirements are satisfied, the advisory committee will schedule an exit oral presentation or examination. The format of the presentation or examination will be determined by the student's advisory committee.

Review the graduation policy for more information.

Engineering Science

Admission Requirements

Applicants must meet the admission requirements of the SIUE and SIUC Graduate Schools and must be approved by the Graduate Studies Committee of the SIUC College of Engineering. Admission requirements include:

- Master's degree or its equivalent in an engineering discipline with thesis
- Master's degree GPA of 3.5 on a 4.0 scale is ordinarily required
- GRE scores submitted to SIUE (institution code 1759)
- Minimum TOEFL scores for non-native speakers of English submitted to SIUE (institution code 1759): 550 (paper score), 213 (computer score), or 80 (internet-based score)
- Minimum of funding for international students of U.S. $42,500 for each year of the proposed course of study, including funds from a graduate assistantship

For information about GRE and/or TOEFL, or to register for either test, please contact Educational Testing Service.

Application Process

Some application materials must be sent to SIUE while some must be sent to SIUC. Follow the instructions below to ensure your application review is not delayed. Documents under each institution must be received by that institution before applications will be reviewed by that institution.

SIUE Application

- Applicants must complete the online application
- Official bachelor's transcript
- Official master's transcript
- Official GRE Score (institution code 1759)
- Three letters of recommendation
- 1.5 page statement of objectives
- Master's Thesis Abstract
- Current SIUE non-refundable application fee in U.S. dollars
- International students
    - Official TOEFL Score (institution code 1759)

Official transcripts must be sent electronically to siueapps@siue.edu directly from the institution or mailed to:

SIUE Graduate and International Admissions
Co-op PhD Application
Campus Box 1047
Edwardsville, IL 62026-1047

SIUC Application

- Applicants need to submit an electronic application
    - Create an account
    - Program selection will be Engineering Science
    - Degree selection will be PhD
    - Enter your area of concentration
    - When asked to provide letters of recommendation, enter SIUE as the recommender with the email address of siueapps@siue.edu
        - This will allow SIUE to attach the letters of recommendation already submitted to SIUE to SIUC.
    - International Students
        - Copy of Passport showing your name, date of birth, and country of citizenship
        - Financial Statement
            - This document is found at the end of the SIUC application. It must be completed even if you have been promised an assistantship.
            - Before you can be admitted, it is necessary for you to indicate that a minimum of U.S. $42,500 will be available to you for each year of your proposed course of study.
            - Be sure to indicate if your studies are totally dependent upon an assistantship or if you have personal funds to fulfill this requirement.
            - If you have personal funds, be sure to submit official documentation of funds and amounts via a recent bank statement
- Current SIUC non-refundable application fee in U.S. dollars (credit card only)

Admission Process

Your application will be reviewed by the SIUE

School of Engineering and the SIUE department you plan to work with. If the application receives approval from these two entities, it will be reviewed by the appropriate SIUC college and department. If it receives approval from these two entities, it will be reviewed by the SIUC Graduate School. Your application can only be deferred one time. Therefore, your application does not receive approval in time for the semester you apply, it must be approved in time for the next or it will be withdrawn and you will have to reapply. SIUC grants or denies final admission to the program.

Requirements for Retention

The rules of the SIUC Graduate School apply. In addition, students holding graduate assistantships are required to carry no more than two incomplete grades at any given time to be eligible to continue their assistantship appointments.

Candidacy and Dissertation

Candidacy

Admission to candidacy requires:

- Successful completion of the qualifying examination (which satisfies the research tool requirement of the Graduate School)
- Successful completion of 24 hours of credit (which satisfies the residency requirement of the Graduate School)

In addition, the Candidacy Exam Committee will be composed of at least three graduate faculty members consisting of the advisor of the student, along with at least one graduate faculty from each campus. It is recommended that these same faculty members also serve on the student's PhD Committee. For full details on the Candidacy Exam process, please view the SIUC Graduate Catalog.

Dissertation

Following the admission to candidacy and upon completion of all the coursework, the candidate will prepare and submit a formal written dissertation proposal, defining the proposed research and the proposed line of inquiry. The candidate subsequently must make an oral presentation of the dissertation proposal to the members of the dissertation committee in an open forum. A public announcement of this event must be made at least five days in advance.

In the framework of the oral presentation of the dissertation proposal, the candidate is expected to address and respond to any question (by the members of the committee) related to material covered by all the courses taken during his doctoral studies or to the background necessary for the specific area of the proposed research. In addition, the candidate is expected to defend the research methodology and the proposed line of inquiry.

A dissertation must be written under the direction or co-direction of an engineering faculty member and approved by a dissertation committee consisting of at least six members, three SIUC faculty members and three SIUE faculty members, with a chair from SIUE and a co-chair from SIUC. The dissertation advisor must be chosen by the end of the student's first academic year. The dissertation committee should be formed after successful completion of the candidacy examination. The members of this committee need not be the same as the members of the candidacy examination committee. A dissertation research proposal must be approved by the dissertation committee. Candidates will be required to present an acceptable dissertation describing original research performed with minimal supervision. Dissertation approval is based on a successful oral defense of the dissertation research and approval of the dissertation. This requires approval of at least 80% of the dissertation committee.

The dissertation must be prepared in accordance with the Guidelines for Dissertations, Theses and Research Papers of the SIUC Graduate School. Dissertation approval is based on successful defense of the research performed in terms of originality, relevance and presentation (written and oral). This requires approval by at least 80% of the members of the dissertation committee.

Upon completion of the dissertation, which must demonstrate the ability of the candidate to conduct independent research, the committee will administer the final oral examination. The objective of the final oral examination, conducted in an open forum, will

be the defense of the dissertation. Upon satisfactory completion of the dissertation and the final oral examination the committee will recommend the candidate for the doctoral degree.

Civil, Environmental and Geotechnical Engineering

Courses are offered in environmental, structural, transportation, and geotechnical engineering. Environmental engineering topics include water and wastewater treatment as well as solid and hazardous waste management. Structural engineering topics include structural analysis and concrete, masonry, steel, and timber design. Transportation engineering topics include site selection, safety, and system design. Geotechnical topics include soil mechanics, foundation, excavation, tunneling, retaining structures, and supporting systems.

Computer Science

Course offerings and areas of interest include advanced operating systems, computer architecture, computer networks, bioinformatics, artificial intelligence, database systems and information assurance.

Electrical and Computer Engineering

Course offerings and areas of interest include computer architectures, computer networks and security, embedded controller design and applications, VLSI design, mixed signal design, communications, signal and image processing, automation and control, power systems.

Mechanical Engineering

Course offerings and areas of interest include dynamics and vibration, robotics and automation, dynamical systems and control, structural mechanics, computational fluid mechanics, mass and heat transfer, refrigeration, HVAC, alternative cooling technologies. Other areas may also be formulated.

Curriculum

The PhD program requires a minimum of 26 semester hours of coursework and 24 semester hours of dissertation research. The coursework is comprised of the program core requirements and additional courses taken in the student's selected area of specialty. Students are encouraged to complete a Plan of Study form in cooperation with their faculty advisor at the start of the program.

Core Requirements

Each student must complete the core course requirements of the program totaling 11 credit hours. The program core has the following components:

- Mathematics: Six credit hours
- Engineering or Science: Three credit hours approved by both the SIUE and SIUC advisors
- Seminar: Two credit hours
  - The two credit hours for the seminar, ENGR 580, must be taken over two semesters, one credit hour at a time. One of the two seminar credit hours must be taken before admission to candidacy and one after admission to candidacy.

Area of Concentration

In addition, a minimum of 15 credit hours is required in the selected area of concentration to provide substantial depth relevant to the student's research interests.

No more than two courses or six credit hours of 400-level courses can be counted toward the requirements of the PhD.

ENGR 590-Special Investigations course can only be used once for a maximum of three credit hours.

Applicants with a master's degree in computer science are encouraged to choose the computer engineering specialization in the co-op PhD program.

For questions related to transfer credit please contact the associate dean for research and development.

Approved Mathematics Courses for the Program Core

- MATH 420-3 Abstract Algebra

- Standard algebraic structures and properties. Groups: Subgroups, normality and quotients, isomorphism theorems, special groups. Rings: Ideals, quotient rings, special rings. Fields: Extensions, finite fields, geometric constructions. Prerequisite: MATH 320 or consent of instructor.

- MATH 421-3 Linear Algebra II
  - Advanced study of vector spaces: Cayley-Hamilton Theorem, minimal and characteristic polynomials, eigenspaces, canonical forms, Lagrange-Sylvester Theorem, applications. Prerequisite: MATH 321 or consent of instructor.
- MATH 423-3 Combinatorics and Graph Theory
  - Solving discrete problems. Counting techniques, combinatorial reasoning and modeling, generating functions and recurrence relations. Graphs: Definitions, examples, basic properties, applications, and algorithms. Prerequisites: MATH 223; some knowledge of programming recommended.

- MATH 435-3 Foundations for Euclidian and Non-Euclidian Geometry
  - Points, lines, planes, space, separations, congruence, parallelism and similarity, non-Euclidean geometries, independence of the parallel axiom. Riemannian and Bolyai-Lobachevskian geometries. Prerequisites: MATH 250; 321; MATH 320 or 350, consent of instructor.
- MATH 437-3 Differential Geometry
  - Curve theory, surfaces in 3D space, fundamental quadratic forms of a surface, Riemannian geometry, differential manifolds. Prerequisite: MATH 250.
- MATH 450-3 Real Analysis I
  - Differentiation and Riemann integration of functions of one variable. Taylor series. Improper integrals. Lebesgue measure and integration. Prerequisite: MATH 350.

- MATH 451-3 Introduction to Complex Analysis
  - Analytic functions, Cauchy-Riemann equations, harmonic functions, elements of conformal mapping, line integrals, Cauchy-Goursat theorem, Cauchy integral formula, power series, the residue theorem and applications. Prerequisites: MATH 223; 250.
- MATH 462-3 Engineering Numerical Analysis
  - Polynomial interpolation and approximations, numerical integration, differentiation, direct and iterative methods for linear systems. Numerical solutions for ODE's and PDE's. MATLAB programming required. Prerequisites: MATH 250; 305; CS 140 or 141, or consent of instructor. Not for MATH majors.
- MATH 464-3 Partial Differential Equations
  - Partial differential equations; Fourier series and integrals; wave equation; heat equation; Laplace equation; and Sturm-Liouville theory. Prerequisites: MATH 250, 305, and 321.

- MATH 465-3 Numerical Analysis
  - Error analysis, solution of nonlinear equations, interpolation, numerical differentiation and integration, numerical solution of ordinary differential equations, solution of linear systems of equations. Prerequisites: MATH 305; CS 140 or 141.
- MATH 466-3 Numerical Linear Algebra with Applications
  - Direct and iterative methods for linear systems, approximation of eigenvalues, solution of nonlinear systems, numerical solution of ODE and PDE boundary value problems, function approximation. Prerequisites: MATH 305; 321; CS 140 or 141.
- MATH 501-3 Differential Equations and the Fourier Analysis
  - Brief review of ODE. Legendre and Bessel functions. Fourier series, integrals, and transforms. Wave equation, heat equation, Laplace equation. Not for MATH majors. Prerequisite: MATH 250, MATH 305, or consent of instructor.

- MATH 502-3 Advanced Calculus for Engineers
  - Review of vector calculus, Green's theorem, Gauss' theorem, and Stokes' theorem. Complex analysis up to contour integrals and residue theorem. Not for MATH majors. Prerequisite: MATH 250 or consent of instructor.
- MATH 545-3 Real Analysis II
  - Riemann, Riemann-Stieltjes, and Lebesgue integrals. Differentiation of functions of n variables. Multiple integrals. Measure and probability. Differential forms, Stokes' Theorem. Prerequisites: MATH 321 and 450.

- MATH 552-3 Theory of Ordinary Differential Equations
  - Existence and uniqueness theorem, dynamical systems, stability, bifurcation theory, boundary value problems. Prerequisites: MATH 350; 421.
- MATH 555-3 Functional Analysis with Applications
  - Normed and Banach spaces, inner product and Hilbert spaces, Open Mapping and Closed Graph Theorem, Hahn-Banach Theorem, dual spaces and weak topology. Prerequisite: MATH 421, 450.
- MATH 563-3 Optimal Control Theory (Same as ECE 563 and ME 563)
  - Description of system and evaluation of its performance; dynamic programming, calculus of variations and Pontryagin's minimum principle; iterative numerical techniques. Prerequisite: MATH 305 or ECE 365 or ME 450.
- MATH 565-3 Advanced Numerical Analysis
  - Rigorous treatment of topics in numerical analysis including function approximation, numerical solutions to ordinary and partial differential equations. Convergence and stability of finite difference methods. Prerequisites: MATH 321; 350; 465; 466.

Engineering or Science Courses for the Program Core

Core courses are approved on a case-by-case basis. Courses may be taught by faculty at SIUC and made available at SIUE through distance education and other means. Other courses may also be taken to satisfy the engineering or science core requirements subject to approval of the advisor.

Degrees Available

- Doctor of Philosophy

Areas of Concentration

- Civil, Environmental and Geotechnical Engineering
- Computer Science
- Electrical and Computer Engineering
- Mechanical Engineering

Graduation Requirements

In order to graduate, students of the PhD program must have successfully completed the following requirements:

- All requirements of the Southern Illinois University Carbondale Graduate School must be satisfied.
- A minimum of 26 hours of doctoral-level coursework must be completed. The GPA must be 3.25 or higher on a scale of 4.00.
- An acceptable dissertation must be completed within five years after admission to candidacy. In the event the dissertation is not completed in the set time frame, the student will be required to take and pass the candidacy exams again.

The doctoral degree is conferred by SIUC. Students must apply for graduation and pay application fees by the deadline via Salukinet.

English

Admission Requirements

- Graduate School application and $40 fee
- Submission of all academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA of 2.50
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Three letters of recommendation.
- A one-page statement of purpose
- A recent sample of the applicant’s writing, at least ten pages in length. The admissions committee prefers to read papers which engage in literary analysis, but will accept any paper which demonstrates the ability to conduct scholarly investigation.
- Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn graduate-level credit for courses taken their senior year.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

For applicants to the literature specialization, there is a requirement of one year of college-level course work (or its equivalent) in the same modern or classical foreign language, with at least a C average. These requirements may be satisfied during the course of the student’s graduate studies.

Review the SIUE Admissions Policy for more information.

Degrees Available at SIUE

- Master of Arts in English, Literature Specialization

Combined Degree

- Accelerated Combined BA and MA in English, Literature Specialization

The combined degree allows motivated students to complete both the BA in English and the MA in literature in five years. Current SIUE students pursuing a degree in English can apply for the accelerated combined degree program during their junior year.

Post-Baccalaureate Certificate

- Literature

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

The specialization in literature requires 30-36 semester hours for completion of the master of arts degree. Program elements include the following:

Required courses (18 hours):

- ENG 501 Modern Literary Studies, taken in the first available term.
- Students must complete five literature courses.

Electives (12 to 18 hours):

Courses may be elected in literature, creative writing, composition and/or linguistics. Elective hours may also include six hours of ENG 598 (Preparatory Reading/English and American Literature) or ENG 599 (Thesis). Students may, with the written approval of their advisor and of the Director of Graduate Studies, choose an elective from another SIUE department. Use the Graduate Student Request form to obtain approval prior to registration in any such course.

In total, no more than fifteen hours from 400-level courses can count toward the literature

specialization.

Graduation Requirements

Students in the literature specialization can choose to complete a thesis or an exit project. Both options require the student to submit a prospectus that is approved by a committee of at least three faculty members (one of whom is the project director) who will consult with the student throughout the course of the project. Both options also require the student to complete an oral defense of the project before their committee.

Thesis

Students who choose to write a thesis may enroll in English 599 for a maximum of six credit hours. We strongly suggest that students who take all six credit hours split the thesis work into two semesters rather than taking all six hours at once. An acceptable thesis for the literature specialization should be a cohesive, comprehensive research study of at least 60 pages in length. For more about the process of writing and submitting your thesis, visit both the Department's thesis page and the University's thesis page.

Exit Project

Students who do not wish to write a thesis may choose to develop an exit project that allows them more freedom in scope and content. Students who choose the exit project will enroll in English 598 for three to six credit hours depending on the dedicated time necessary for project completion. Before beginning the exit project, students must justify why they are choosing the three- or six-credit option in a prospectus that is approved by the exit project committee. The examples below should not be understood as exhaustive, but rather illustrative of the level of work required for the three- and six-credit options.

We assume that students will spend twelve hours per week in the completion of their exit projects. Therefore, the three-credit option should necessitate approximately 180-200 hours, whereas the six-credit option should necessitate approximately 380-400 hours of dedicated time. All projects should be academically rigorous, and the student should conduct thorough research appropriate to the particular focus and format of the study.

Example three-credit exit projects:

- A selection of materials from previous course work (usually three seminar-length papers) revised and expanded over the course of the semester and accompanied by a short reflection discussing the work that they've accomplished.
- A blog kept over the course of the Master's program from which the student has chosen specific examples to demonstrate growth over time. In an accompanying paper, the student discusses the blog's breadth and development, the audience it reached, and discourses that have occurred as a result of its publication.
- The planning and facilitation of a public exhibition (either physical or digital) in which the student curates the items on display using scholarly research. The student will accompany the exhibit with a paper explaining the exhibit's rationale, the work it entailed, and the outcomes of the display.
- An action research project that inquires into a pedagogical concern in a secondary teaching environment. In this case, a teacher investigates a relevant problem in his/her school's English curriculum, researches the topic, develops meaningful actions, and creates plans and materials in preparation for enacting practical solutions.

Example six-credit exit projects:

- A digital edition of a textual corpus using current best practices for text encoding. The project should be accompanied by an editorial rationale, an introduction and annotation.
- A digital archive of an extensive collection of digital items that is thoroughly created and formally annotated (such as a substantial collection of books, news coverage of a literary event, etc.). Students should submit plans of all program curricula and an assessment of activities.
- The planning and execution of a community program about literature or literary history. Students should submit plans of all program curricula and an assessment of activities.

The Prospectus

Whether choosing the thesis or the exit project, students are required to submit a prospectus of 3-5 pages accompanied by a bibliography of sources.

Students choosing the thesis should explain their planned argument and provide a synopsis of each chapter.

Students choosing the exit project must give a synopsis of their intended project, outline their work plan, and provide a rationale for the amount of dedicated time required.

The project committee must approve the prospectus by signing the prospectus form. Although the department strongly encourages students to complete their prospectus prior to beginning exit course work, the approved prospectus must be submitted to the graduate director no later than the second week of exit coursework.

Note: All research involving human subjects must comply with regulations and guidelines found at the Graduate School's Office of Research and Projects. Proposals must be cleared by the appropriate board and approved by the Graduate Dean before data collection begins. Federal regulations require mandatory training for all researchers, including students writing a thesis, dissertation or research project.

Review the graduation policy for more information.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA of 2.50
  International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Three letters of recommendation
- Statement of Purpose: A three- to five-page paper which explains how the applicant became interested in the field of Teaching of Writing, what the applicant hopes to learn in the program, and how that learning will help the applicant in a career.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

Required primary courses (12 credit hours)

- ENG 556-Theory of Composition and Rhetoric
- ENG 558-Writing: Teaching and Practice
- ENG 583-History of Rhetoric I-The Classical Period to the Renaissance
- ENG 596-Preparatory Reading/Teaching of Writing (exit project)

Students are required to complete five of the following secondary courses (three credit hours each, 15 credit hours total):

- ENG 486 Teaching Creative Writing
- ENG 552 Academic Writing and Research Methods OR ENG 541 Graduate Research Methods
- ENG 554 Composition Pedagogy (required for Teaching Graduate Assistants)
- ENG 570 Teaching African American Oral and Written Tradition
- ENG 572 Theory and Practice of Teaching Writing with Computers
- ENG 574 Basic Writing Theory and Pedagogy
- ENG 576 Writing Across the Curriculum
- ENG 578 Gender, Language, and Pedagogy
- ENG 581 Topics in Teaching Writing
- ENG 584 History of Rhetoric II-The Enlightenment

to Today
- ENG 587 Politics of Composition Pedagogy

One of the secondary courses can also be fulfilled with one of the following linguistics courses: ENG 400 Principles of Linguistics, 541 Discourse Analysis, or 544 Reading and Writing Pedagogy in Teaching English as a Second Language.

Elective course (three credit hours): 400- or 500-level ENG course (e.g., technical, expository or creative writing; pedagogy; linguistics, literature).

Students are required to complete one of the following options (nine credit hours inside or outside of the English Department):

- Three courses in the same foreign language
- Three TESL/linguistics courses
- Three literature courses
- Three creative writing courses
- Three computer and/or internet-based courses
- Three literacy and/or reading courses

Alternative three-course sequence to be determined by student in consultation with graduate advisor (e.g., courses in curriculum and instruction, mass communications, or instructional technology). Coursework used to fulfill this option may be completed while student is a candidate in the teaching of writing specialization or may have been completed during the five years immediately preceding entrance to the program.

Post-Baccalaureate Certificate - Teaching of Writing
The teaching of writing post-baccalaureate certificate is designed for students seeking graduate work in composition pedagogy and research but not wishing to commit to a two-year MA program. The certificate program offers
substantive, comprehensive study in a relatively brief time and is intended for students teaching or planning to teach on the university, community college, high school and middle school levels.

Required courses (12 hours)
552 Academic Writing and Research Methods in Composition Studies
554 Composition Pedagogy
556 Theory of Composition and Rhetoric
558 Writing: Teaching and Practice

Electives (6 hours) selected from
486 Teaching Creative Writing
490 Advanced Composition
491 Technical Writing
492 Advanced Fiction Writing
493 Advanced Poetry Writing
541 Discourse Analysis
570 Teaching African American Oral and Written Tradition
572 Theory and Practice of Teaching Writing with Computers
574 Basic Writing Theory and Pedagogy
576 Writing Across the Curriculum
578 Gender, Language, and Pedagogy
581 Topics in Teaching Writing
583 History of Rhetoric I - The Classical Period to the Renaissance
584 History of Rhetoric II - The Enlightenment to Today
587 Politics of Composition Pedagogy
592 Creative Writing

Degrees Available at SIUE

- Master of Arts in English, Teaching of Writing (TOW) Specialization

Post-Baccalaureate Certificate

- Teaching of Writing

Graduation Requirements

In order to complete the program, the student will consult with the graduate advisor to create a three-person graduate faculty committee who will oversee the student's development of pertinent reading lists and the student's successful completion of
three research-based essays on topics determined by the committee and student.

Review the graduation policy for more information.

Environmental Resources and Policy

Admission Requirements

Applicants must meet the admission requirements of the SIUE and SIUC Graduate Schools and must be approved by the SIUE Environmental Science and SIUC Environmental Resources and Policy departments.

- Admission to the program requires a Master of Science in a related field with a GPA of 3.0/4.0 or higher.
- Applications for admission must include the following:
  - Curriculum vitae or resume
  - Statement of interest: One- to two-page description of your professional goals, including your planned field of specialization (or program concentration)
  - Bachelor's and master's degree transcripts
  - GRE scores (SIUE institution code: 1759)
  - Three reference letters
- International applicants also need to submit the following:
  - A photocopy of the page(s) of your passport showing your name, date of birth and country of citizenship
  - TOEFL or IELTS score (SIUE institution code: 1759)
  - Financial statement to show that funding will be available to you for each year of your proposed course of study, or that you have an assistantship to provide toward the amount

Application Process

Some application materials must be sent to SIUE while some must be sent to SIUC. Follow the instructions below to ensure your application review is not delayed. Documents under each institution must be received by that institution before applications will be reviewed by that institution.

SIUE Application

- Applicants must complete the online application
- Official bachelor's transcript
- Official master's transcript
- Official GRE score (SIUE code 1759)
- Three reference letters
- Statement of interest
- International students
  - Official TOEFL or IELTS Score (institution code 1759)

Official transcripts must be submitted electronically to siueapps@siue.edu or mailed to:

SIUE Graduate and International Admissions
Co-op PhD Application
Campus Box 1047
Edwardsville, IL 62026-1047

The application deadline for fall admission and graduate assistantships is February 1. Only exceptional applicants may be admitted for spring semesters, and the application deadline is October 1.

SIUC Application

- Applicants need to submit an electronic application
  - Create an account
  - Program selection will be Environmental Resources and Policy
  - Degree selection will be PhD
    When asked to provide letters of recommendation, enter SIUE as the recommender with the email address of siueapps@siue.edu
    - This will allow SIUE to attach the letters of recommendation already submitted to SIUE to SIUC.
  - International students
    - Financial Statement
      - This document is found at the end of the SIUC application. It must be completed even if you have been promised an assistantship
      - Before you can be admitted, it is necessary for you to indicate that a minimum of U.S. $40,500 will be available to you for each year of your proposed course of study
      - Be sure to indicate if your studies are totally dependent upon an assistantship or if you have personal funds to fulfill this requirement
      - If you have personal funds, be sure to submit official documentation of funds and

amounts via a recent bank statement
    - Copy of Passport showing your name, date of birth and country of citizenship
- Current SIUC non-refundable application fee in U.S. dollars (credit card only)

Admission Process

The application will be reviewed by the SIUE Department of Environmental Sciences. If the application receives approval from the department, it will be forwarded to the SIUC Environmental Resources and Policy Program. Applications will then be reviewed by the ERP program, and a final decision to recommend admission to the SIUE Graduate School will be administered by the SIUC ERP Internal Advisory Board in the same manner as other students who are admitted to SIUC's program and further by the SIUC Graduate School.

The student's PhD committee will determine the need for and nature of any remedial work required. In keeping with the common practice in the SIUC doctoral environmental resources and policy program, advisors will be identified at the time of admission.

Admission to the ERP program will be granted by the SIUC Graduate School.

Candidacy and Dissertation

Preliminary Exams

By the end of their second semester in residence, students must have chosen a concentration and formed a graduate committee to oversee their dissertation research. The graduate committee will consist of five members: Two SIUC graduate faculty, two SIUE graduate faculty, and an additional member from either institution or an external member who holds graduate status or temporary graduate status as appropriate from the respective institution.

Written and oral preliminary examinations consist of two parts: One based on the program core material, and the other on the student's chosen concentration. If prelims are not passed, the student must wait a minimum of three months for the second and final attempt to pass the exam. When the student has passed prelims and a dissertation proposal is accepted by the committee, students are admitted to candidacy.

Dissertation Proposal and Candidacy

The candidate will prepare and submit a formal written dissertation proposal, defining the proposed research and proposed line of inquiry. In the framework of the oral presentation of the dissertation proposal, the candidate is expected to address and respond to any question (by the members of the committee) related to material covered by all the courses taken during his/her doctoral studies or to the background necessary for the specific area of the proposed research. In addition, the candidate is expected to defend the research methodology and the proposed line of inquiry. A dissertation research proposal must be approved by the dissertation committee. The dissertation proposal must also be presented in ERP 598, Applied Environmental Resources and Policy.

Admission to candidacy requires:

- Successful completion of 24 hours of credit (which satisfies the residency requirement of the Graduate School)
- Successful defense of the dissertation proposal (which satisfies the research tool requirement of the Graduate School)
- Successful completion of the qualifying examination

Dissertation and Defense

A dissertation is written under the direction of the student's dissertation advisor and the student's graduate committee. The dissertation must be prepared in accordance to the "Guidelines for Dissertations, Theses and Research Papers" of the SIUC Graduate School.

Candidates will be required to present an acceptable dissertation describing original research performed with minimal supervision. The oral presentation of the dissertation will be made to the members of the dissertation committee in an open forum. A public announcement of this event must be made at least five days in advance. Dissertation approval is based

on a successful defense of the dissertation research performed in terms of originality, relevance, and presentation (both written and oral). This requires approval of at least 80% of the dissertation committee. The dissertation research must also be presented in ERP 598, Applied Environmental Resources and Policy.

Curriculum

The environmental resources and policy program requires a minimum of 60 credit hours, including:

12 credit hours of core coursework

- ERP 502 Environmental Decision Making (3 credit hours)
- A methodology or science course at SIUC (3 credit hours)
- A methodology or science course at SIUE (3 credit hours)
- ERP 598 Applied Environmental Resources and Policy (1 credit hour each year in residence)
- ERP 601 Continuing Enrollment (SIUE students registration for ERP 601 with no charge)

Up to six credit hours can be approved for transfer to the degree program if they were earned from an accredited institution. Transfer credits will not count toward the residency requirement.

24 hours of dissertation research credit

- ERP 600 Dissertation (12 credit hours)
- ENSC 600 Dissertation (12 credit hours)

Only six hours of dissertation research credit may be taken prior to the oral defense of the dissertation proposal and approval of the dissertation proposal.

24 hours of concentration coursework
The 24 hours of elective coursework will be taken within an area of chosen concentration. The student and the research supervisor(s) in consultation with the student's graduate advisory committee will determine specific concentration courses. The multi-disciplinary curriculum for each concentration is customized to meet the student's individual interests and career goals.

The minimum course requirements are listed in the SIUC Graduate Catalog and on the SIUC Environmental Resources and Policy Program website.

Degree Available

- PhD in Environmental Resources and Policy

Graduation Requirements

In order to graduate, students of the doctoral program must have successfully completed the following requirements:

- All requirements of the SIUC Graduate School must be satisfied.
- A minimum of 36 hours of doctoral-level coursework must be completed. The GPA must be 3.25 or higher on a scale of 4.00.
- An acceptable dissertation must be completed within five years after admission to candidacy. In the event the dissertation is not completed in the set time frame, the student will be required to take and pass the candidacy exams again.

The doctoral degree is conferred by SIUC. Students must apply for graduation and pay application fees by the deadline via Salukinet.

Environmental Sciences

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Admission to this program requires a positive recommendation from the Environmental Sciences Admission Committee. The program requires all prospective students to submit a letter stating their academic and professional goals.
- The GRE is required for those students whose undergraduate GPA is below 3.0 (4.0 scale).
- Additionally, for those students whose GPA is below 2.75 (4.0 scale), two letters of recommendation are required.
- Applicants with less than a 2.5 GPA will ordinarily not be admitted. Students entering any of the areas of emphasis must have a baccalaureate degree in an appropriate academic major. Computer literacy is strongly encouraged.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn graduate-level credit for courses taken their senior year.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Competitive graduate assistantships through the Department of Environmental Sciences and Competitive Graduate Awards through the Graduate School are available.

Review the SIUE Admissions Policy for more information.

Degrees Available at SIUE

- Master of Science in Environmental Sciences

Emphasis Options

- Environmental Biology
- Environmental Chemistry and Toxicology
- Environmental Education
- Environmental Policy and Public Administration
- Environmental Technology and Assessment

Combined Degree

- Accelerated Combined BA or BS and MS in Environmental Sciences

Required Credit Hours/Tuition and Fees

- Thesis Option: 33
- Non-Thesis Option: 38
- Visit the Paying for College website for detailed tuition information

Curriculum

The Master of Science in environmental sciences requires a minimum of 33 hours of graduate work for those students electing to complete a thesis and 38 hours of graduate work for those students electing to complete a non-thesis paper.

Students will choose one of five emphasis options.

Within the first semester of study, the student must select a graduate faculty member as thesis (or non-thesis) chairperson for their graduate advisory committee. The chairperson will advise the student on coursework and research. Within the first year of study, the graduate advisory committee must be complete, consisting of the chairperson and two or more additional graduate faculty members. The graduate advisory committee should consist of faculty with expertise or interests that are appropriate to the student's academic background, goals, and career interests. The graduate advisory committee and the student will develop a research project outline and will determine before the work begins whether the project is to result in a thesis or a non-thesis paper. The research project is then approved for initiation and supervised by the committee chairperson.

Graduation Requirements

Each student is required to complete a research thesis or non-thesis paper. With advisement and agreement of the thesis committee, students may select their own research topic. Students are encouraged to work with faculty on their ongoing research projects. Because of career enhancements, students are encouraged to select the thesis option.

Following the completion of the program of study, including the thesis or non-thesis paper, the student will present the thesis or non-thesis paper, open to the public, to the graduate advisory committee for critique. Student must also pass a final oral examination administered by the graduate advisory committee.

Review the graduation policy for more information.

Environmental Biology

- Required core courses (9-10 hours): ENSC 505, 506, 510, and a 3- or 4- hour 400- or 500-level statistics course
- Thesis (1-6 hours): ENSC 599 or Final Research Paper (1-3 hours): ENSC 597
- Required emphasis courses (9 hours): ENSC 540, 550/450, and either ENSC 528/528L or 520
- Electives: 9 hours minimum

Environmental Chemistry and Toxicology

- Required core courses (9-10 hours): ENSC 505, 506, 510, and a 3- or 4-hour 400- or 500-level statistics course
- Thesis (1-6 hours): ENSC 599 or Final Research Paper (1-3 hours): ENSC 597
- Required emphasis courses (9 hours): ENSC 525 or 531/431, ENSC 535 or 540, and either ENSC 528/528L or 520
- Electives: 9 hours minimum

Environmental Education

- Required core courses (9-10 hours): ENSC 505, 506, 510, and a 3- or 4- hour 400- or 500-level statistics course
- Thesis (1-6 hours): ENSC 599 or Final Research Paper (1-3 hours): ENSC 597
- Required emphasis courses (9 hours): ENSC 550/450, 520, and either ENSC 580 or 540
- Electives: 9 hours minimum

Environmental Policy and Public Administration

- Required core courses (9-10 hours): ENSC 505, 506, 510, and a 3- or 4- hour 400- or 500-level statistics course
- Thesis (1-6 hours): ENSC 599 or Final Research Paper (1-3 hours): ENSC 599 or Final Research Paper (1-3 hours): ENSC 597
- Required emphasis courses (9 hours): ENSC 511, 512 and 550/450
- Electives: 9 hours minimum

Environmental Technology and Assessment

- Required core courses (9-10 hours): ENSC 505, 506, 510, and a 3- or 4-hour 400- or 500-level statistics course
- Thesis (1-6 hours): ENSC 599 or Final Research Paper (1-3 hours): ENSC 597
- Required emphasis courses (9 hours): ENSC 550/450, 573, and either ENSC 528/528L or 520
- Electives: 9 hours minimum

Forensic Sciences

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment in a physical science, life science, forensic science or related field, or pre-medical degree.
- Applicants must have a baccalaureate and/or graduate-level GPA of 3.0 or above on a 4.0 scale.
- Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.0 may be considered if all the following conditions are met:
  - The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission.
  - The applicant provides a written explanation of their performance in the baccalaureate degree.
  - The applicant provides a written explanation of why they will be successful in the program. The explanation may include documented relevant work experiences.
- For the chemistry track, applicants must have at least 9 combined credits in analytical, biochemistry, and physical chemistry; and at least 3 credits of genetics or cell & molecular biology.
- For the biology track, applicants must have at least 9 combined credits in genetics, cell & molecular biology, and biochemistry; and at least 3 credits of analytical chemistry
- Submission of at least two (2) letters of recommendation. These letters should be preferably from instructors and/or individuals who are familiar with the applicant’s academic and professional preparation for undertaking a master’s program in the forensic science. The letters should be submitted directly by the recommenders. The prospective SIUE faculty mentor cannot write a letter of recommendation.
- International Applicants: proof of English proficiency: Minimum requirements are TOEFL (79), IELTS (6.5) or equivalent.

Curriculum

Required Credit Hours/Tuition and Fees

- Thesis Option: 42
- Visit the Paying for College website for detailed tuition information

Program of Study

Core Courses (33 credit hours)

- FORS 501: Foundations of Criminalistics Seminar (3 credit hours)
- FORS 503: Thesis Proposal Formulation (1 credit hour)
- FORS 521: Forensic Investigation of Latent Prints and Ballistics (1 credit hour)
- FORS 525: Forensic Court Procedure and Moot Court (1 credit hour)
- FORS 541: Forensic Data Analysis Seminar (2 credit hours)
- FORS 591: Forensic Science Seminar (4 credit hours total - 2 credit hours taken twice)
- FORS 595: Forensic Science Research (6 credit hours total - 2 credit hours taken three times)
- FORS 599: Thesis in Forensic Science (1 credit hour)
- CHEM 432: Forensic Chemistry (3 credit hours)
- CHEM 537: Forensic Chemistry laboratory (1 credit hour)
- BIOL 424: Forensic Toxicology or ENSC 431 Environmental Toxicology (3 credit hours)
- BIOL 423: Forensic Biology (3 credit hours)
- BIOL 417: Quantitative Methods in the Biological Sciences (4 credit hours)

Elective Hours (9 credit hours)

- 9 credit hours in graduate-level coursework in Anthropology, Biology, or Chemistry (at least 1 credit hour must be at 500-level)

Students will select a thesis advisor and graduate thesis committee during the first semester in the program. The thesis advisor will provide mentoring on the selection of appropriate elective course work in the program.

Degrees Available at SIUE

- Master of Science in Forensic Sciences

Graduation Requirements

Students are required to complete all required courses with a GPA of 3.0 or higher.

Students will complete 6 credit hours of research (FORS 595), and 1 credit hour of a thesis course (FORS 599) resulting in a written project thesis. A graduate committee of no less than three faculty, including the thesis advisor, will provide evaluation of the final thesis defense.

Review the graduation policy for more information.

Geography

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Applicants must have at least an overall GPA of 2.8 (A=4.0). Applicants who do not meet the required GPA will be considered based on letters of recommendation, acceptable scores on the Graduate Record Examination (GRE) or on grades in recommended or required prerequisite courses.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Curriculum Vitae (Resume)
- A one- to two-page statement of purpose discussing why the applicant has chosen our program, their interests, what the applicant hopes to gain from the program, and how it will help the applicant achieve their long-range objectives in geography
- Two letters of reference from individuals familiar with the applicant's academic background, training or work. A third letter is optional and may be submitted to help support the application. Please contact Graduate Admissions to submit a third letter.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Admission is open to geography and non-geography majors with baccalaureate degrees satisfying the general requirements of the Graduate School. Non-geography majors and, in some cases, geography majors may be required to take prerequisites as a condition for full acceptance in the graduate program. Courses taken to remedy any deficiencies do not count as part of the regular program.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- Thesis Option: 30
- Non-Thesis Option: 36
- Visit the Paying for College website for detailed tuition information

Curriculum

Students in the graduate program are required to maintain a minimum overall GPA of 3.0. Should a student earn a grade of C or below in any graduate level course, he or she will be placed on academic probation. Any student earning two grades of C or below in the program will be dropped from the geography graduate program, regardless of GPA. To facilitate the process of student advising and guidance, all applicants must submit a one-page written statement of their graduate education and study plan along with their graduate admissions forms.

Thesis Option:

A minimum of 30 hours is required for the master of science, of which 21 semester hours must be geography graduate-level courses. In addition, at least one half of the required 30 credit hours must be earned at the 500-level. Required courses (12 hours) include: GEOG 520, 521, 522; plus one seminar in geography. Electives (12-15 hours) are additional courses that should be related to the student’s needs and interests and faculty expertise. Candidates must complete a thesis while enrolled in GEOG 599 (3 to 6 hours).

Non-Thesis Option:

A minimum of 36 credit hours is required for the master of science, of which 24 semester hours must be geography graduate-level courses. In addition, at least one-half of the 36 required credits must be earned at the 500-level. Required courses (15 hours) include GEOG 520, 521, 522, 598 plus one seminar in geography. Electives (21 hours) are additional courses that should be related to the student’s needs and interests and faculty expertise.

In addition, each graduate student, regardless of option selected, must declare a subject area he or she wishes to emphasize. Before enrolling in the second year of study, each student must have selected a subject area advisor and obtained approval from the advisor as well as the graduate director.

Degrees Available at SIUE

- Master of Science in Geography

Graduation Requirements

Thesis Option: In addition to the thesis itself, a final oral examination will be conducted by the candidate's committee. This examination will cover the content of the thesis as well as the fundamental concepts of the discipline as stated in the program's objectives.

Non-Thesis Option: The candidate must complete GEOG 598 (Graduate Research Project) with a grade of C or better. Requirements include a research paper and a conference presentation based on the research paper.

Review the graduation policy for more information.

Healthcare Informatics Nursing Administration

Admission Requirements

- Graduate School applications and $40 fee. (A separate application must be submitted for both the Healthcare Informatics program and the Healthcare and Nursing Administration program.)
- Submission of all postsecondary academic transcripts
- A degree in nursing from a CCNE or ACEN accredited program. Graduates from non-CCNE or ACEN accredited program may be evaluated on an individual basis. Please contact the School of Nursing for more information.
- Minimum undergraduate nursing GPA of 3.0 on a 4.0 scale
- Submission of personal statements for each application
- Submission of three reference forms
  - One must be from your current manager
  - Two preferably from nurses holding a graduate degree in nursing or a related field.

Admission Decisions are Based on the Following:

- Provide professional experience, goals statement, and three reference forms
- Bachelor of Science in nursing from a CCNE or ACEN accredited program. (Graduates from non-ACEN or CCNE accredited programs will be considered under certain circumstances. Please contact the School of Nursing for more information.)
- Current unencumbered RN licensure in the state where you plan to complete your practicum experience.
  - Please note that if you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.
- Minimum undergraduate nursing GPA of 3.0/4.0.
- Preferred minimum undergraduate science GPA of 3.0/4.0.
- Preferred minimum overall undergraduate GPA of 3.0/4.0.
- Successful completion of an undergraduate statistics course with a grade of C or better.
- A minimum of one year of full-time professional nursing practice experience or its part-time equivalent (1,872 hours) prior to enrollment in the first specialization clinical course.
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, prior to enrollment in the program.

Applicants may follow-up with the School of Nursing at 618-650-3930 or nursing@siue.edu with additional questions or to check on the status of their application.

Program application materials may be uploaded during the application process. Official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service.

Please contact the Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Application Deadline

The priority application deadline is June 1 for fall applicants and November 1 for spring applicants. Applications may still be accepted after these deadlines if space allows.

Required Credit Hours/Tuition and Fees

- 57
- Visit the Paying for College website for detailed tuition information

Sample Curriculum (subject to change)

The dual major in healthcare informatics and healthcare nursing administration consists of 57 semester hours.

Retention

Scholarship appropriate for students in a School of

Nursing graduate program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of "A" or "B." The following retention policy applies specifically to all graduate nursing courses with the NURS prefix for degrees conferred by the School of Nursing:

1. Students who obtain a course grade of "D" or "F" in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course.
2. Students may only earn one course grade of "C" and stay enrolled in graduate nursing programs. If a second course grade of "C" is earned, students will no longer be allowed to progress in the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of "C" does not eliminate the original course grade of "C" from being applied toward this exclusion policy.
3. Per the SIUE Graduate School policy, all students must have a GPA of 3.0 or higher to graduate.

For more information on the SIUE Graduate School Retention Policies, please refer to the Graduate Handbook.

Year 1 (Fall Semester)

(3) NURS 600 Theory Guided Practice
(3) PAPA 561 Biostatistics/Epidemiology
6 - Total Credits

Year 1 (Spring Semester)

(3) NURS 604 Evaluating Evidence for Improving Practice & Healthcare Outcomes
(3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
6 - Total Credits

Year 1 (Summer Semester)

(3) NURS 510 Healthcare Informatics
3 - Total Credits

Year 2 (Fall Semester)

(3) CMIS 517 Enterprise Resource Planning
(3) NURS 590 Organizational Behavioral and Leadership for Nurse Executives
6 - Total Credits

Year 2 (Spring Semester)

(3) NURS 511 Social, Ethical and Legal Issues in an Informative Age
(3) NURS 593 Management of Human Resources in Healthcare
6 - Total Credits

Year 2 (Summer Semester)

(3) IT 508 Seminar in IT: Instructional Design and Media Selection for Healthcare Informatics
(3) CMIS 515 Database Management Systems
6 - Total Credits

Year 3 (Fall Semester)

(3) CS 430 Information Storage and Retrieval
(3) NURS 592 Healthcare Finance and Budgeting
6 - Total Credits

Year 3 (Spring Semester)

(3) NURS 556 Quality and Safety for Nurse Executives
(3) CS 560 Information Discovery in Electronic Healthcare Records
6 - Total Credits

Year 3 (Summer Semester)

(3) NURS 558 Nurse Executive Leadership I
(3) CMIS 518 Seminar in CMIS: Information Security
(1) HCIM 596a Capstone I
7 - Total Credits

Year 4 (Fall Semester)

(3) NURS 594 Nurse Executive Leadership II
(1) HCIM 596b Capstone II
(1) HCIM 596c Capstone III
5 - Total Credits

Total Hours 57

Degrees Available at SIUE

- Master of Science in Healthcare and Nursing Administration and Healthcare Informatics

Graduation Requirements

Master's Terminal/Capstone Project

Master's students demonstrate synthesis of their coursework, practicum experiences and attainment of the master's student outcomes by creating a rigorous, scholarly, evidence-based project that incorporates a broad review of the literature from nursing and related fields, and present the project orally to students and faculty during the final synthesis course for the specialization.

Review the graduation policy for more information.

Healthcare Informatics

Admission Requirements

- Graduate School application and $40 fee
- Submission of all academic transcripts
- Completion of a baccalaureate degree with a minimum GPA of 2.75/4.0
- Evidence of completion of an undergraduate or graduate statistics course with a grade of C or better
- Statement of Purpose: A written statement describing their background in healthcare and/or information technology and their reasons for pursuing a graduate degree in healthcare informatics
- International Applicants: This is a fully online program. International students cannot receive a visa to study in the U.S. for this program. Students are not eligible to enroll in this program from outside of the U.S. Individuals residing in the U.S. on a non-student visa, and citizens and permanent residents who completed their undergraduate degree outside of the U.S., must provide proof of English proficiency. Minimum requirements are TOEFL (79), IELTS (6.5) or equivalent.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Application Deadlines

Students are admitted in the fall semester only. See the Graduate Admissions application deadlines for information on the deadline for an upcoming term.

Admission & Acceptance Rates

- Spring 2021: A total of 27 students applied and 26 met the requirements and were accepted into the program. Of the 26 accepted a total of 17 were enrolled in the first class of the program.
- Fall 2021: A total of 55 students applied and the class maximum of 30 met the requirements and were accepted into the program. Of the 30, a total of 30 were enrolled in the first class of the program.
- Spring 2022: A total of 17 students applied and all 17 met the requirements and were accepted into the program. Of the 17 accepted students 15 were enrolled in the first class of the program.
- Fall 2022: A total of 54 students applied and the class maximum of 30 students met the requirements and were accepted into the program. Of the 30 a total of 30 were enrolled in the first class of the program.
- Spring 2023: A total of 21 students applied and 20 met the requirements and were accepted into the program. Of the 20 accepted students 16 were enrolled in the first class of the program.

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

Program of Study

NURS 509 (3 credit hours): Interdisciplinary Healthcare Informatics
Introduces informatics terminology and theory, including searching, managing, and evaluating data, analyzing information systems, and integrating technology into practice.

NURS 511 (3 credit hours): Social, Ethical and Legal Issues in an Informative Age
Explores social, ethical and legal issues related to searching, storing and using healthcare information and the ethical and legal formation of informatics professionals.

NURS 512 (3 credit hours): Managing Quality and Safety in Healthcare
Examination of processes and integration of concepts used to measure and improve quality and effectiveness of health care. Examination and analysis of research statistics.

CMIS 515 (3 credit hours): Project

Management Standard Process
Is a framework of standard processes based on the Project Management Body of Knowledge and other resources. It includes processes for managing scope, time, quality, cost, human resources, communications, risk and procurement.

CMIS 517: (3 credit hours): Systems Analysis Methodologies for Healthcare Informatics
The role of Enterprise Resource Planning (ERP) software in the business environment will be explored using SAP. A risk management approach will be emphasized.

CMIS 518 (3 credit hours): Seminar in CMIS: Information Security
An introduction to the technical and administrative aspects of information security and assurance. It provides an understanding of the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing an effective information security system.

PBHE 537 (3 credit hours): Healthcare Informatics - Introduction to Epidemiology
Causes, prevention, control of communicable, chronic, and degenerative diseases in various community settings. Examination of statistical measures and methods of organizing vital statistics.

IT 508 (3 credit hours): Seminar in IT: Instructional Design and Media Selection for Healthcare Informatics
Provides healthcare informatics professionals with foundation in the skills of planning, designing, developing, implementing, and evaluating employee trainings.

PSYCH 576 (3 credit hours): Graduate Seminar in Organizational Development
Introduces early history, assumptions, concepts and various change strategies and human process approaches to planned change within a systems framework.

CS 430 (3 credit hours): Information Storage and Retrieval
Database system concepts, models, languages. Database design using entity/relationship, and relational models; querying using SQL.

CS 560 (3 credit hours): Information Discovery in Electronic Healthcare Records
Analytical techniques for discovering information in electronic healthcare record systems through data mining, text mining, and visual analytics techniques.

HCIM 596a (1 credit hour): Capstone I
During Capstone I, the student will initiate their capstone project. The student will use their approved project proposal to do the background work and literature review. An outline of the final paper is required at the end of the course.

HCIM 596b (1 credit hour): Capstone II
During Capstone II, the student will continue their capstone project and submit a rough draft of their capstone project paper. The student will analyze the current system being replaced (or in need of replacement) and research viable IT solutions (potential solutions). The student will then identify and make an IT solution recommendation. A literature review concerning the background of the problem and technology based solution will be submitted along with the remainder of the initial (rough) draft of the capstone project paper.

HCIM 596c (1 credit hour): Capstone III
During Capstone III, the student will complete their capstone project and submit their final capstone project paper and deliver a presentation.

Retention Policy

Scholarship appropriate for students in the Master of Science in Healthcare Informatics Program is demonstrated through satisfactory completion of course work, defined as obtaining a course grade of "A" or "B." The following retention policy applies specifically to the program:

1. Students who obtain a course grade of "D" or "F" will have suspended enrollment until a retention plan is created and signed by the student and the program director. A second course grade of "D" or "F" will result in removal from the program.
2. Students earning one course grade of "C" are allowed to remain enrolled in the program. Students earning a second course grade of "C" or lower will have suspended enrollment until a retention plan is created and signed by the student and the program director. Students

earning a third course grade of "C" or lower are removed from the program. Students repeating a course in which there is a grade of "C" does not eliminate the original course grade of "C" from being applied toward this exclusion policy.
3. Per SIUE Policy 1F1, all students must have a GPA of 3.0 or higher in all graduate coursework required by the program to be awarded the degree.
4. Contact the SIUE Student Service Center for instructions and information on withdrawal.

Degrees Available at SIUE

- Master of Science in Healthcare Informatics

Graduation Requirements

Completion of required courses with a GPA of at least 3.0 (A=4.0), and a final presentation.

Review the graduation policy for more information.

Time to degree completion

The majority of students complete the program in 24 months. Of the 16 students starting the program in fall 2016 a total of 14 completed the degree within 24 months. Two students dropped out. Of the 15 students starting the program in spring 2017 a total of five are scheduled to graduate within 24 months while four are scheduled to graduate in 32 months. Five students dropped out.

Healthcare Nursing Administration

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- A degree in nursing from a CCNE or ACEN accredited program prior to enrollment. Graduates from non-CCNE or ACEN accredited program may be evaluated on an individual basis. Please contact the School of Nursing for more information.
- Minimum undergraduate (graduate for post-master's applicants) nursing GPA of 3.0 on a 4.0 scale
- Submission of a personal statement
- Submission of three professional reference forms
  - One must be from your current manager
  - Two preferably from nurses holding a graduate degree in nursing or a related field

Admission Decisions are Based on the Following:

- Professional experience, goals statement, and three reference forms
- Bachelor of Science in nursing (Master of Science in nursing for post-master's applicants) from a CCNE or ACEN accredited program prior to enrollment. (Graduates from non-ACEN or CCNE accredited programs will be considered under certain circumstances. Please contact the School of Nursing for more information.)
- Current unencumbered RN licensure in the state where you plan to complete your practicum experience.
  - Please note:If you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.

- Minimum undergraduate (graduate for post-master's applicants) nursing GPA of 3.0 on a 4.0 scale.
- Preferred minimum undergraduate (graduate for post-master's applicants) science GPA of 3.0 on a 4.0 scale.
- Preferred minimum overall undergraduate (graduate for post-master's applicants) GPA of 3.0 on a 4.0 scale.
- Successful completion of an undergraduate statistics course with a grade of C or better.
- A minimum of one year of full-time professional nursing practice experience or its part-time equivalent (1,872 hours) prior to enrollment in the first specialization clinical course.
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, prior to enrollment in the program.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu for additional questions or to check on status of their application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service.

Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Accelerated Combined Degrees

Current SIUE nursing students (traditional undergraduate, post-baccalaureate accelerated BS, and accelerated RN to BS) may apply for the accelerated option to earn graduate-level credit for courses taken during their undergraduate program.

Application Deadline

The priority application deadline is February 1 for summer applicants, June 1 for fall applicants, and November 1 for spring applicants. Applications may still be accepted after these deadlines if space allows.

Required Credit Hours/Tuition and Fees

- 33

- Visit the Paying for College website for detailed tuition information

Program of Study

The program for the Master of Science in nursing consists of 33 semester hours for healthcare and nursing administration.

Year 1 (Fall)

(3) NURS 600 Theory Guided Practice
(3) PAPA 561 Biostatistics/Epidemiology
6 - Total Credits

Year 1 (Spring)

(3) NURS 604 Evaluating Evidence for Improving Practice & Healthcare Outcomes
(3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
6 - Total Credits

Year 1 (Summer)

(3) NURS 510 Health Care Informatics

Year 2 (Fall)

(3) NURS 590 Organizational Behavioral and Leadership for Nurse Executives (2.5 credits didactic, .5 credit practicum)
(3) NURS 592 Healthcare Finance and Budgeting (2.5 credits didactic, .5 credit practicum)
6 - Total Credits

Year 2 (Spring)

(3) NURS 556 Quality and Safety for Nurse Executives (2 credits didactic, 1 credit practicum)
(3) NURS 593 Management of Human Resources in Health Care
6 - Total Credits

Year 2 (Summer)

(3) NURS 558 Nurse Executive Leadership I (2.5 credits didactic, .5 credit practicum - Begin project)

Year 3 (Fall)

(3) NURS 594 Nurse Executive Leadership II (2 credits didactic, 1 credit practicum - Complete project)

Total Hours 33

Retention

Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of "A" or "B." The following retention policy applies specifically to all graduate nursing courses with the NURS prefix for degrees conferred by the School of Nursing:

1. Students who obtain a course grade of "D" or "F" in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course.
2. Students may only earn one course grade of "C" and stay enrolled in graduate nursing programs. If a second course grade of "C" is earned, students will no longer be allowed to progress in the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of "C" does not eliminate the original course grade of "C" from being applied toward this exclusion policy.
3. Per the SIUE Graduate School policy, all students must have a GPA of 3.0 or higher to graduate.

For more information on the SIUE Graduate School Retention Policies, please refer to the Graduate Handbook.

Degrees Available at SIUE

- Master of Science, Healthcare and Nursing Administration (HCNA)

Certificate

- Healthcare and Nursing Administration Post-Master's Certificate

Undergraduate to Graduate Nursing Options

Qualified SIUE nursing students can apply to enroll in graduate-level courses taken during the following undergraduate programs:

- Nursing (Traditional)

- Accelerated RN-BS
- Accelerated BS in Nursing as Second Degree

Graduation Requirements

Master's Terminal Project (Master's and Post-Master's Students)

Master's students in the School of Nursing demonstrate synthesis of their coursework, practicum experiences, and attainment of the master's student outcomes by creating a rigorous, scholarly, evidence-based project that incorporates a broad review of the literature from nursing and related fields, and present the project orally to students and faculty, during the final synthesis course for the specialization.

Review the graduation policy for more information.

Higher Education And Student Affairs

Admission Requirements for MSEd

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Undergraduate GPA of at least 2.5 or above on a 4.0 scale
- Current resume
- Statement of Purpose: A list of professional experiences and a two-page, double-spaced written statement responding to both of the following prompts:
  (1) What do you hope to learn in the program?
  (2) What areas in higher education are you interested in pursuing and why?

Please note that international students are ineligible to receive a student visa for this program as it is offered in a fully online format.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service.

Official transcripts should be sent to the following address:

SIUE Office of Graduate and International Admissions
Campus Box 1047
Edwardsville, IL 62026-1047

Electronic official transcripts should be submitted to siueapps@siue.edu.

Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Application Deadline

This program operates on rolling admission. Students admitted into the traditional HESA program may begin in the fall semester, and students admitted into the Athletics specialization may begin in the fall or spring semester.

Required Credit Hours/Tuition and Fees

- 39
- Visit the Paying for College website for detailed tuition information

Curriculum: MSEd in Higher Education and Student Affairs - Traditional Option

Required Courses (24 hours)

- (3) HESA 503 - Research Methods in Higher Education
- (3) HESA 504 - Foundations of Higher Education
- (3) HESA 506 - Assessment and Evaluation in Student Affairs
- (3) HESA 514 - College Student Learning and Development
- (3) HESA 516 - Leadership Theory and Practice in Higher Education
- (3) HESA 522 - Diversity in Higher Education
- (3) HESA 524 - Legal and Ethical Issues in Student Affairs
- (3) HESA 574 - Introduction to Student Affairs

*HESA 564 may be replaced by an approved elective

Research Project (6 hours)

- (6) HESA 594 - Final Research Project
  The student will select three faculty members to serve as the committee for the research project.

Practicum (6 hours)

- (6) HESA 554 - Practicum and Professional Development

All students must complete a maximum of six credits of HESA 554 Practicum. The practicum involves a minimum of 150 hours of supervised field work (3 credit hours). During the last semester of the

program, students will take a professional development capstone (3 credit hours).

Exceptions may be made for students who have been employed previously in higher education and student affairs for at least six months. Such students may substitute an additional elective in place of the HESA 554 practicum.

Electives (3 hours)

- (3) HESA 563 - Special Topics
- (3) HESA 564 - The Community College
- (3) HESA 583 - Organization and Administration of Higher Education

To view the curriculum for the MSEd in higher education and student affairs with a specialization in athletics, visit the athletics specialization page.

Retention Policy

Academic achievement appropriate for students in the higher education and student affairs program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of A or B. The following retention policy applies specifically to all graduate courses within the program curriculum including approved elective coursework:

1. Students who obtain a course grade of D or F in the program are withdrawn from the HESA graduate program without the option of repeating the course.
2. Students may only earn one course grade of C and remain enrolled in the HESA graduate program. A student earning a C will have suspended enrollment until a retention plan is created and signed by the student and the program director. If a second course grade of C is earned, students will no longer be allowed to progress in the HESA graduate program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied toward this exclusion policy.
3. Per SIUE Graduate School policy, all students must have a GPA of 3.0 or higher to graduate.

Degrees Available at SIUE

- Master of Science in Education in Higher Education and Student Affairs

Specialization

- Athletics

Graduation Requirements

- Create and present a portfolio based on academic and professional experiences gained throughout the program.
- Complete a six credit hour sequence culminating in a final research project.

View the graduation requirements for the athletics specialization.

Review the graduation policy for more information.

Athletics Specialization

The athletics specialization is offered fully online and will prepare students to become reflective and equity-minded practitioners with the knowledge, skills and perspectives to serve college students and to work in intercollegiate athletics and athletic organizations that are education and professional in nature.

Please note that international students are ineligible to receive a student visa for this program.

Curriculum

Required Credit Hours: 33

Required Courses (27 hours)

- HESA 505 - Athletics in Higher Education
- HESA 506 - Assessment and Evaluation in Student Affairs
- HESA 514 - College Student Learning and Development
- HESA 515 - History and Current Issues in Athletics
- HESA 522 - Diversity in Higher Education
- HESA 525 - Law and Ethics in Sport
- HESA 534 - Philanthropy in Higher Education
- HESA 535 - Athletic Finance and Facilities

- HESA 574 - Introduction to Student Affairs Administration

Practicum (3 hours)

- HESA 554 - Practicum

Electives (3 hours)

- HESA 516 - Leadership Theory and Practice in Higher Education
- HESA 533 - Data Analytics
- HESA 563 - Special Topics
- HESA 583 - Organization and Administration of Higher Education

Retention Policy

Academic achievement appropriate for students in the higher education and student affairs graduate program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of A or B. The following retention policy applies specifically to all graduate courses within the program curriculum including approved elective coursework:

1. Students who obtain a course grade of D or F in the program are withdrawn from the HESA graduate program without the option of repeating the course.
2. Students may only earn one course grade of C and remain enrolled in the HESA graduate program. A student earning a C will have suspended enrollment until a retention plan is created and signed by the student and the program director. If a second course grade of C is earned, students will no longer be allowed to progress in the HESA graduate program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied toward this exclusion policy.
3. Per SIUE Graduate School policy, all students must have a GPA of 3.0 or higher to graduate.

Graduation Requirements

- Create and present a portfolio based on academic and professional experiences gained throughout the program.
- Complete an action research project, evaluating a problem in the field.

Review the graduation policy for more information.

History PhD

Admission Requirements

Applicants must meet the admission requirements of the SIUE and SIUC Graduate Schools and must be approved by both the SIUE and SIUC History departments.

- Master's degree in history or closely related field
- If applicant has non-history master's, must have at least 18 credit hours of history at the undergraduate level carrying a GPA in history of 3.0 or above.
- Non-native English speakers must demonstrate English proficiency in their application

Application Process

Some application materials must be sent to SIUE while some must be sent to SIUC. Follow the instructions below to ensure your application review is not delayed. Documents under each institution must be received by that institution before applications will be reviewed by that institution.

SIUE Application

Applicants must complete the online application.
Preferred application deadlines are February 1 for fall applications and November 1 for spring applications.
The following documents must be uploaded to your online application:

- $40 application fee
- Official bachelor's transcript
- Official master's transcript
- A 15-25 page writing sample demonstrating applicant's competence in historic research and writing
- A personal statement outlining applicant's historical experience, areas of historical interest and goals
- Three letters of recommendation from those who know the applicant's previous historical work the best
- Official TOEFL Score (institution code 1759)

Official transcripts must be sent electronically to siueapps@siue.edu directly from the institution or mailed to:

SIUE Graduate and International Admissions
History Co-op PhD
Campus Box 1047
Edwardsville, IL 62026-1047

SIUC Application

- Review happens concurrently, and all applicants need to submit an electronic application.
    - Create an account
    - Program selection will be Historical Studies
    - Degree selection will be PhD
    - When asked to provide letters of recommendation, enter SIUE as the recommender with the email address of siueapps@siue.edu
    - This will allow SIUE to attach the letters of recommendation already submitted to SIUE to SIUC.
- International students
    - Financial Statement
        - This document is found at the end of the SIUC application. It must be completed even if you have been promised an assistantship.
        - Before you can be admitted, it is necessary for you to indicate that a minimum of U.S. $40,500 will be available to you for each year of your proposed course of study.
        - Be sure to indicate if your studies are totally dependent upon an assistantship or if you have personal funds to fulfill this requirement.
        - If you have personal funds, be sure to submit official documentation of funds and amounts via a recent bank statement.
        - Copy of Passport showing your name, date of birth, and country of citizenship
- Current SIUC non-refundable application fee in US dollars (credit card only)

International Students

Admission Process

The Graduate Committees of both SIUE and SIUC's Departments of History will review the applications submitted to their respective universities. Upon joint acceptance by the two departments, applicants will be referred to each university's respective Graduate Schools for final admission. Students will enter SIUE as unclassified graduate students and will enter SIUC as classified graduate students in history.

Admission to the program will be granted by SIUC.

Curriculum

The doctoral program requires a minimum of 24 semester hours of coursework and 24 hours of dissertation research. The coursework is to be comprised of program requirements and elective course requirements.

Following completion of coursework, students must pass comprehensive field examinations and an oral defense of their dissertation prospectus before being advanced to candidacy. Completion of the PhD also requires an oral defense of the dissertation. Exam and dissertation committees will be comprised of faculty from both SIUE and SIUC.

Core requirements

- Students will complete six to eight hours in Historiography/Methodology and Historical Research.

Elective Requirements

- Minimum of 16 additional hours of coursework at the 400- or 500-level to provide substantial depth in areas of research and breadth in examination fields. Full-time students typically complete upwards of 40 credit hours prior to their exams. The courses and credit hours necessary for a doctoral student to prepare for preliminary examinations will be determined by the student's advisory committee.

Campus Requirements

- At least six credit hours must be taken in non-European and non-United States history
- Students must also demonstrate competency in at least two research tools, at least one must consist of a foreign language.
- No more than 14 credit hours total may be taken as independent study, tutorial, or directed readings courses.
- Students must complete at least eight credit hours of coursework at SIUC

Degrees Available

The cooperative PhD with SIU Carbondale provides students with expertise in historical methodology and research, as well as subject-area expertise within the various fields of history. The conditions of this cooperative PhD program are outlined on the Memorandum of Understanding.

Our quick reference guide for co-op PhD students provides information on essential processes at both campuses, including admission, registration, dissertation committee formation, applying for graduation and more.

Students may concentrate in any of the fields where there is faculty expertise, including, but not limited to:

- African History
- African American History
- Ancient History
- Asian History
- Atlantic World History
- Environmental History
- European History (Ancient-Medieval-Renaissance-Early Modern-Modern)
- Latin American History (Colonial-Modern)
- Middle Eastern History
- Native American History
- United States History (Colonial-Antebellum-late 19th Century-20th Century)
- Urban History

Graduation Requirements

The doctoral degree is conferred by Southern Illinois University Carbondale. Students must apply for graduation and pay application fees by the deadline via SalukiNET.

History

Admission Requirements

- Graduate School application and $40 fee
- Submission of all academic transcripts
- Minimum 3.0 (A=4.0) GPA
- Successful completion of a bachelor's degree prior to enrollment and preparation in the discipline equivalent to at least an undergraduate minor (18 credit hours in history)
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Two letters of recommendation
- An academic writing sample
- Statement of Purpose: A one-page letter of intent discussing their preparation for graduate study in history, their area(s) of historical interest and their career goals.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Application Deadline

All application materials are due by February 1 for fall admission and November 1 for spring admission. The Department's graduate program committee will review application materials and make a final determination of admittance normally by March 1 for fall admission and December 1 for spring admission.

Cooperative Doctoral Program

Faculty in the Department of History participate with faculty from the Department of History at Southern Illinois University Carbondale in offering a cooperative program leading to the Doctor of Philosophy in history. Prospective students may initiate application procedures at either campus and may enroll in courses at either or both campuses concurrently. The doctoral degree is conferred by Southern Illinois University Carbondale. For more detailed information, students may contact either department directly.

Click here to learn more about the cooperative doctoral program.

Required Credit Hours/Tuition and Fees

- 33
- Visit the Paying for College website for detailed tuition information

Curriculum

Both thesis and non-thesis plans of study are available. Students pursuing either the thesis or the non-thesis plan must complete a minimum of 33 semester hours. All entering students are required to take a two-semester sequence of History 555 (Graduate Seminar in History and Theory) and History 556 (Graduate Seminar in Historical Research). Students may also apply to participate in an internship program that allows them to obtain practical experience in non-teaching career fields related to history.

All graduate students must complete at least four 500-level seminars (12 credit hours), not including HIST 555/556, HIST 598/599, HIST 590, or independent study courses (HIST 510). All students must also complete at least six (6) credit hours of coursework in fields outside of United States history. Thematic courses (e.g., HIST 447, HIST 470) may be considered on a case-by-case basis, with approval of the Graduate Program Director.

In addition to the 33 semester hours required, all students must demonstrate a reading knowledge of a foreign language (modern or classical) or complete an appropriate research tool course or courses, chosen in consultation with and approved by the Graduate Program Director. This requirement can be completed through the following options:

- passage of an examination showing mastery of translation

- completion of four semesters of college-level study in a single language with an average of C or better (through coursework or completion exam)
- completion of a language in translation course with a grade of B or better
- completion of an appropriate research tool course with a grade of B or better.

Students must earn a grade of “B” or better in each course counting toward their graduate degree, with the exception of foreign languages. Candidates for the Master of Arts in history may pursue one of the two following plans of study:

Thesis Option

Students complete 33 hours of graduate credit, three of which represent the Graduate Core Seminar in History and Theory (HIST 555); three are the Graduate Seminar in Historical Research (HIST 556) and six of which represent a well-conceived thesis on a topic chosen in consultation with a faculty advisory committee. Enrollment in HIST 599 is required. Students will prepare a research plan during the semester or summer immediately preceding their first HIST 599 class. Students will present the research plan to the chair of his or her committee and will then distribute it to the rest of the committee. It is strongly suggested that the entire committee and the student meet together to comment on the plan. Students will not receive an instructor permit to register for HIST 599 until this process is complete.

Exam Option

This plan emphasizes breadth of historical understanding while not ignoring research techniques. Students concentrating in one primary and two complementary secondary areas of emphasis complete 33 hours of graduate credit, which includes completion of the Graduate Core Seminar in History and Theory (HIST 555) (three credit hours) and the Graduate Seminar in Historical Research (HIST 556) (three credit hours). Exam option students also enroll in six credit hours of Readings for Exams (HIST 598).

Suggested areas of emphasis can include:

- Ancient History
- African Diaspora
- African-American History
- Asian History
- Early Modern Europe
- Gender History
- Intellectual History
- Medieval Europe
- Middle Eastern History
- Modern Europe
- U.S. Economic History
- U.S. since 1877
- U.S. to 1877

The broad fields may be modified in consultation with the student's advisory committee. Before embarking on any area(s) of emphasis, a student should consult the appropriate faculty member(s). All exam option students are required to develop a portfolio of two research papers, written for different faculty while enrolled at SIUE, that reflect their primary, and one of their secondary fields of interest. All students are required to submit their portfolio to their examination committee a month before the scheduling of their written exams. In order for written examinations to be scheduled, the portfolio must first be approved by the student's committee.

Degrees Available at SIUE

- **Master of Arts in History**
- Master of Science in Integrative Studies - Cultural Heritage and Resources Management
- Doctor of Philosophy (PhD) in Historical Studies (Cooperative doctoral program with Southern Illinois University Carbondale)

A secondary education history teaching focus is available with our Master of Science in Education (MSEd) in curriculum and instruction.

Post-Baccalaureate Certificate

- Museum Studies

Graduation Requirements

Students who follow a thesis plan of study will be required to pass an oral defense of the thesis and related historical material and submit a final draft to the Graduate School.

Upon completion of the coursework, students pursuing the exam option must pass a written examination, at least three hours long, covering one principal and two secondary fields. They are also required to pass an oral examination based on their written exams, portfolio and related historical material. The chairperson of the student's advisory committee will provide guidance to the student regarding the nature of the portfolio and examination. Such guidance will include a list of readings compiled by the advisory committee, which, in conjunction with the student's coursework, will serve as the basis for the examination.

Exam option students intending to take examinations in the spring semester must declare their intention to take examinations by **September 15** of the preceding fall semester. Students intending to take examinations in the fall semester must declare their intention to do so by **April 1** of the preceding spring semester.

Declaring an intention to take exams requires students to form an exam committee and, in consultation with their committee, establish reading lists for the exams.

Spring semester written exams must be completed by April 1 and an oral examination based on the written exams and the portfolio must be held by April 15.

Fall semester written exams must be completed by November 15 and an oral examination based on the written exams and the portfolio must be held by December 5. Generally, master's-level exams will not be scheduled during the summer term.

Review the graduation policy for more information.

Industrial Engineering

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Undergraduate GPA of at least 2.75 (A=4.0) in engineering, mathematics and physical science courses.
- Applicants should have a baccalaureate degree in an engineering discipline from an ABET-accredited program. Applicants who completed a non-ABET-accredited program or whose undergraduate studies were in a country other than the United States must have a baccalaureate degree in an engineering discipline which is comparable to the United States' bachelor's degree equivalent, and must take the Graduate Records Examination (GRE) (verbal, quantitative and analytical portions) to support their application.
- Applicants from selected areas of mathematical and physical science will be considered for admission on an individual basis.
- In cases where the applicant has not completed the prerequisites for core or elective courses, the applicant may be required to complete those courses as "not for graduate credit"
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn graduate-level credit for courses taken their senior year.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

In exceptional cases, the graduate admissions committee may consider applicants who meet all of the Graduate School admission standards but who do not meet certain specified program admission requirements. The committee may consider other evidence that indicates high promise of the applicant's success in the program. Such supportive evidence may include high scores on the GRE, professional registration, extensive professional experience, professional publications or satisfactory graduate-level work.

Review the SIUE Admissions Policy for more information.

Early Entry MS in Industrial Engineering

The Department of Industrial Engineering offers undergraduate students the opportunity to begin coursework toward the Master of Science during the senior year of their Bachelor of Science program. An undergraduate student in this program may begin to take graduate-level courses after completing 95 out of 126~128 credit hours required for the BS. In order to join this program, a student must submit a program outline for approval to Graduate Records and Director of the IE graduate program prior to enrollment in any courses to be included as part of the graduate program.

Students have two options to obtain an MS: A thesis option with 30 credit hours of graduate-level courses and a non-thesis option with 33 credit hours of graduate-level courses. Please contact Dr. Xin Chen, industrial engineering graduate program director at xchen@siue.edu with any questions.

Please note: Only current SIUE students are eligible for this program.

Required Credit Hours/Tuition and Fees

- Thesis Option: 30
- Non-Thesis Option: 33
- Visit the Paying for College website for detailed tuition information

Curriculum

The program offers both thesis and non-thesis options. The thesis option requires 30 credit hours; the non-thesis option requires 33 hours. Of the

required 30 credit hours of the thesis option, at least 15 credit hours must be industrial engineering 500-level credit hours, excluding IE 599. At least 21 credit hours must be in industrial engineering courses, and up to six hours may be thesis credit. Of the required 33 hours of non-thesis option, at least 18 credit hours must be industrial engineering 500-level credit hours. At least 24 credit hours must be in industrial engineering courses. Students who choose the non-thesis option must either complete a research project, which has zero credit hours, or pass an exit exam focused on core courses in IE.

The specific program of study is selected by the student in consultation with and approved by the student's advisor. All students are required to complete the program's core courses: IE 465-Design and Control of Quality Systems, IE 483-Production Planning and Control, IE 500-Graduate Seminar in Industrial Engineering (0 credit hours), IE 515-Engineering Optimization Models, and IE 583-Supply Chain Logistics Systems. Students having completed these or similar courses as part of a baccalaureate degree may choose other courses in the same core area with the approval of their advisor.

Four areas of emphasis (systems optimization, manufacturing engineering design, enterprise and production control, and quality engineering) are currently being offered by the program. Students will be guided in thesis work by a thesis advisor with the assistance and concurrence of an advisory committee. The thesis topic will be selected from an area in industrial engineering and approved by the student's advisor. Writing a thesis involves an intensive research effort and students are encouraged to initiate their thesis work early in the program, even before registering for any thesis credit. Upon the completion of the student's research, a thesis defense will be conducted. In the non-thesis option, students must either complete a research project or pass an exit exam focused on core courses in IE.

Degrees Available at SIUE

- Master of Science in Industrial Engineering
- Master of Science in Integrative Studies - Engineering Management
- PhD in Engineering Science, a cooperative program with SIU Carbondale

Other Engineering Graduate Programs at SIUE

- Civil Engineering
- Computer Science
- Electrical and Computer Engineering
- Mechanical Engineering

Combined Degrees

- Accelerated Combined BS and MS in Industrial Engineering
- Early Entry MS in Industrial Engineering

Graduation Requirements

After all other program requirements are satisfied, a final examination on the course work and related material on the thesis or project will be given. In the thesis option, the final examination is an oral examination directed primarily at the material in the thesis. This examination is conducted by the advisory committee.

In the non-thesis option with a project, the final examination is an oral examination directed primarily at the material in the project and related research paper. In the non-thesis option with an exit exam option, the exam is focused on core courses in IE.

Review the graduation policy for more information.

Instructional Technology

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary transcripts
- Successful completion of a bachelor's prior to enrollment
- Minimum GPA of 3.0 or above (A=4.0) during undergraduate work

Please note that as a fully online program, international students are ineligible to receive a student visa for this program.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants may arrange for an appeal interview with the Admissions Committee if admission is denied.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 30-36
- Visit the Paying for College website for detailed tuition information

Instructional Technology with Emphasis Area in Distance Education or Instructional Design & Performance Improvement

Students pursuing the degree with an emphasis in either distance education or instructional design and performance improvement must complete 36 semester hours for the MSEd as outlined on the distance education and the instructional design and performance improvement pages.

Instructional Technology with Specialization in Educational Technologies

Students pursuing the degree with the specialization in educational technologies must complete 30 semester hours for the MSEd as outlined on the educational technologies specialization page.

Distance Education Emphasis

Distance education focuses on the tools and techniques for designing, producing and facilitating online courses. This emphasis area will be useful to teachers, adult educators, college faculty members and corporate training personnel who are interested in the potential of online classrooms to expand learning opportunities for students and employees. While pursuing the distance education emphasis, you simultaneously can earn the post-baccalaureate certificate (PBC) in online teaching and learning.

Students pursuing the degree with an emphasis in Distance Education must complete 36 semester hours for the MSEd. The below courses are required (listed in numerical order, not in program sequencing order):

- IT 430 - Computer-Based Publishing and Instruction
- IT 486 - Web Design for Instruction
- IT 500 - Principles of Instructional Technology
- IT 596 - Design Studio I
- IT 597 - Design Studio II
- IT 505 - Needs Assessment and Program Evaluation in Instructional Technology
- IT 510 - Instructional Systems Design
- IT 567 - Online Teaching Tools
- IT 568 - Design and Development of Online Lessons, Modules, and Courses
- IT 569 - Facilitating Online Classrooms
- IT 598 - Final Project
- One Educational Psychology Course chosen from the following:
  - HESA 514 - College Student Learning and Development
  - EPFR 515 - Issues in Learning Theory
- One Analysis of Educational Issues Course chosen from the following:
  - EPFR 451 - Gender and Education *(not offered in online format)*

- EPFR 520 - Philosophical-Historical Foundations
- EPFR 521 - Socio-Cultural Foundations
- HESA 522 - Diversity in Higher Education

Educational Technology Specialization

Educational technology enables teachers and other school personnel to plan, implement and evaluate technology-based instruction and learning activities in P-12 settings. This specialization places a particular focus on leveraging technology to enhance the learning environment. As you complete this specialization, you simultaneously can earn the post-baccalaureate certificate (PBC) in emerging technologies. Students must complete an admission application and a graduation application for the PBC if wishing to have the additional PBC credential awarded on the transcript.

The MSEd in Instructional Technologies with an emphasis in Educational Technology requires completion of the below 30 credit hours:

- EPFR 501 - Research Methods
- IT 435 - Producing Instructional Materials
- IT 481 - Computers in Education: Theories and Practice
- IT 501 - Foundational Issues for Educational Technology Specialists
- IT 550 - Emerging Technologies in Education
- IT 560 - Leadership in Educational Technology
- IT 561 - Designing Digital Materials
- IT 562 - Social Media for Teachers
- IT 563 - Games and Simulations
- IT 574 - Educational Technology Specialist Final Project

Graduation Requirements

Students in the MSEd must successfully pass all required coursework, participate in the process of successfully developing and submitting a final project, and present elements of their final project to faculty and students. All graduation requirements can be completed 100% online with no required trips to campus.

Review the graduation policy for more information.

Instructional Design and Performance Improvement Emphasis

Instructional design and performance improvement focuses on skills necessary for careers in corporations, institutions of higher education, healthcare organizations and nonprofits. Students who graduate from this emphasis become multimedia learning technologists, curriculum writers, instructional designers, performance improvement specialists and learning consultants. In this emphasis, you will learn how to identify gaps in human performance and improve people's knowledge and skills in ways that close the gap. Graduates from this emphasis have been hired by Elsevier Publishing Company, Federal Reserve Bank, Anheuser-Busch InBev, The Boeing Co., and a variety of other regional, national and international organizations. As you complete this emphasis, you can simultaneously earn the post-baccalaureate certificate (PBC) in instructional design.

Students pursuing the degree with an emphasis in Instructional Design and Performance Improvement must complete 36 semester hours for the MSEd. The below courses are required (listed in numerical order, not in program sequencing order):

- IT 430 - Computer-Based Publishing and Instruction
- IT 486 - Web Design for Instruction
- IT 500 - Principles of Instructional Technology
- IT 596 - Design Studio I
- IT 597 - Design Studio II
- IT 598 - Final Project
- IT 505 - Needs Assessment and Program Evaluation in Instructional Technology
- IT 510 - Instructional Systems Design
- IT 520 - Performance Technology
- IT 530 - Managing Instructional Development
- One Distance Education Course chosen from the following:
  - IT 540 - Distance Education
  - IT 567 - Online Teaching Tools
  - IT 568 - Design and Development of Online Lessons, Modules, and Courses
  - IT 569 - Facilitating Online Classrooms
- One Educational Psychology Course chosen from the following:
  - HESA 514 - College Student Learning and

Development
    - EPFR 515 - Issues in Learning Theory
- One Analysis of Educational Issues Course chosen from the following:
    - EPFR 451 - Gender and Education
    - EPFR 520 - Philosophical-Historical Foundations
    - EPFR 521 - Socio-Cultural Foundations
    - HESA 522 - Diversity in Higher Education

Integrative Studies

Integrative Studies - Applied Communication Studies and Marketing (MS)

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

In the increasingly changing national and international markets, professionals in marketing and communication studies are in high demand, especially if their knowledge and skills cut across industry and specialization areas. A Master of Science in integrative studies with a focus in applied communication studies and marketing from SIUE will equip you with cutting-edge knowledge and skills that will position you for various careers that meld marketing and communication in both the corporate and the nonprofit realms. Effectively managing marketing campaigns is essential for organizations as they seek to solidify and expand market share.

Career Outlook

Graduates with a strong background in marketing and applied communication studies will be well positioned to pursue careers in advertising, public relations, social media and corporate communication, among others. According to the Bureau of Labor Statistics, the job outlook for advertising, promotions and marketing managers is projected to grow 9% through 2024.

Admission Requirements

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment. Applicants may be required to take prerequisites or resolve any deficiencies before classified status is approved.
- Minimum GPA of 3.25
- A faculty member from applied communication studies who has agreed in writing to serve as a graduate mentor must be identified by the applicant in order to be considered for acceptance into the program. Applicants are encouraged to contact Dr. Wai Cheah, Dr. Min Liu, Dr. Sorin Nastasia, Dr. Debbie Sellnow-Richmond, or Dr. Sarah VanSlette.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A letter of intent clearly articulating the desired focus areas, the applicant's academic/career goals, how his/her academic background prepares him/her to undertake the program successfully, and how the program serves his/her goals must be submitted with the application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.25 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission
- The applicant provides a written explanation of her/his performance in the baccalaureate degree
- The applicant provides a written explanation of why he/she will be successful in the integrative studies degree program

Review the SIUE Admission Policy for more information.

Curriculum

Students will take courses in the Departments of Applied Communication Studies and Management and Marketing, according to the master's in integrative studies program requirements:

- 30 credit hours of graduate-level courses, 18 credit hours of which are from the Department of Applied Communication Studies and 12 credit

hours from the Department of Management and Marketing
- At least half of the 30 credit hours of coursework must be at the 500 level
- No more than three credit hours of the 30 credit hours of coursework can be independent study
- All students will complete six credit hours of integrative studies thesis or non-thesis capstone work

Required Courses

Management and Marketing

(3) MKTG 525 Marketing Analysis and Applications for Managerial Decision Making
(3) MKTG 530 Marketing Planning and Strategy
(3) MKTG 534 Advertising Research

One of the following:

(3) MKTG 466 Marketing on the Internet
(3) MKTG 470 Sport Marketing
(3) MKTG 471 Advertising Policy and Management
(3) MKTG 472 Sales Policy and Management
(3) MKTG 474 Retail Policy and Management
(3) MKTG 475 Consumer Behavior
(3) MKTG 476 International Marketing

Applied Communication Studies

(3) ACS 502 Qualitative Research Methods in Communication
(3) ACS 553 Issues Reputation Management
(3) ACS 554 Ethics in Public Relations and Communication Management
(3) ACS 573 Cultural, Health and Communication
(3) ACS 432 Social Media for Public Relations
(3) ACS elective approved by ACS graduate mentor

Integrative Studies Capstone Project

(1) INTG 500 Proposal Development
(5) INTG 599 Thesis Research or (5) INTG 593 Final Project

Graduation Requirements

Students must conduct an oral defense of the thesis or project with an advisory committee consisting of a minimum of three graduate faculty. Each participating department must be represented.

Review the graduation policy for more information.

Integrative Studies - Cultural Heritage and Resources Management (MA,MS)

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

Cultural heritage includes intangible resources (ceremonies, oral history and customs) and tangible resources (architecture, artifacts and landscapes) inherited from past generations. The program includes coursework in ethical and legal issues with management of these resources, as well as practical skills, such as mapping and GIS, methods of survey and excavation, document and map analysis, artifact and art duration. Students take courses in two of the participating departments: Anthropology, geography and history.

A certificate in museum studies may be completed concurrently with this degree.

Format

Weekday courses on campus with some evening, hybrid and online options. Check the latest course offerings.

Career Outlook

The integrative studies degree with a focus in cultural heritage and resources management prepares students for careers in applied fields relating to identification, research, preservation of, and education about cultural heritage and resources. Careers relating to cultural heritage and resources include work in contract archaeology; trade and commerce; tourism, with museums, galleries, libraries, science centers, parks and national monuments; education institutions; community organizations; public and government agencies, as well as private firms.

Curriculum

Students will plan their coursework with their graduate mentor based on their educational background and career goals. Students may choose to focus on coursework relating to:

- Archaeology and cultural resources management
- Museology and ethnographic heritage

Students will typically take courses in two of the participating departments, according to the master's in integrative studies program requirements:

- 30 credit hours of graduate-level electives, which must be split equally between the two departments (e.g., 15 hours and 15 hours) or 40:60 (e.g., 12 hours and 18 hours).
- At least half of the 30 credit hours of coursework must be at the 500-level.
- No more than three credit hours of the 30 credit hours of coursework can be independent study.
- Of the minimum required credits, students may take up to three credits of electives from other departments, as determined in consultation with the graduate mentor. Courses in art history, statistics, or other fields may be appropriate.
- A third department may be incorporated into the program with an additional nine credits of coursework from that department.
- All students will complete six credit hours of integrative studies thesis or non-thesis capstone work.

Anthropology Courses

(3) ANTH 404 Anthropology and the Arts
(3) ANTH 405 Alternative Tourisms
(3) ANTH 420 Museum Anthropology
(3) ANTH 430 Zooarchaeology
(3) ANTH 432 Prehistory of Illinois
(3) ANTH 435 American Material Culture
(3) ANTH 469 Forensic Anthropology
(3-6) ANTH 473 Ethnographic Field School
(3-6) ANTH 474 Biological Anthropology Field School
(3-6) ANTH 475 Archaeological Field School
(3) ANTH 476 Cultural Resource Management
(1-9) ANTH 570 Special Topics in Cultural Heritage and Resources Management
(3 or 6) ANTH 575 Archaeology Field Directorship: Mitigation
(3 or 6) ANTH 576 Archaeology Field Directorship: Survey
(3-6) ANTH 586 Individualized Study in Anthropology
(1-9) ANTH 589 Archaeology Internship
(3-6) ANTH 590 Museum Internship

Geography Courses

(3) GEOG 402 Cultural Landscape
(3) GEOG 410 Soils
(3) GEOG 411 Hydrology
(3) GEOG 412 Groundwater Hydrology
(3) GEOG 418 Geographic Information Systems (GIS)
(3) GEOG 421 Digital Elevation Modeling
(3) GEOG 422 Remote Sensing and Digital Image Processing
(3) GEOG 423 Computer Mapping
(3) GEOG 424 Vector-Based GIS
(3) GEOG 425 Raster-Based GIS
(3) GEOG 452 Topics in Physical Geography
(3) GEOG 454 Topics in Geographic Techniques
(3) GEOG 500 Seminar in Cultural Geography
(3) GEOG 510 Seminar in Physical Geography
(3) GEOG 520 Research Methods in Geography
(3) GEOG 522 Techniques in Geography
(3) GEOG 525 Seminar in GIS
(1-6) GEOG 590 Independent Study

Historical Studies Courses

(3) HIST 447 Approaches to Oral History
(3) HIST 470 Preserving the American Past
(1) HIST 555 History Colloquium
(1) HIST 556 History Colloquium
(3) HIST 580 Museum Studies
(3) HIST 581 Management of Museum Collections
(3) HIST 582 Practicum in Exhibit and Program Development
(3) HIST 590 Internship in Museology

Integrative Studies Capstone Project

(1) INTG 500 Proposal Development
(5) INTG 599 Thesis or (5) INTG 593 Final Project

Admission Requirements

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts

- A completed baccalaureate degree in anthropology, geography, history or a related field. Applicants may be required to take prerequisites or resolve any deficiencies before classified status is approved.
- Minimum GPA 3.0
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Other requirements:
  - All applicants must provide evidence (previous related course work or professional experience, research papers and projects, or honors and awards) to show they can participate successfully in the program.
  - A statement of intent providing evidence of the applicant's preparation and experience leading to the undertaking of this program, and describing the applicant's academic and career goals, highlighting how this program will serve those goals.
  - Three letters of recommendation, ideally from academic or professional references.
  - A writing sample, between four and 15 pages in length, which may be a paper for a course or other written work prepared by the applicant.
  - A faculty member from anthropology, geography, or historical studies who has agreed in writing to serve as a graduate mentor must be identified by the applicant in order to be considered for acceptance into the program. Applicants are encouraged to contact prospective graduate mentors by the time their application materials are submitted. Upon admission to the program, the student shall consult with his/her mentor to review the student's academic record, and develop a plan of coursework.
  - An optional teaching/research assistantship application is required for those wishing to be considered for a teaching or research assistantship and can be obtained from the Graduate School.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants must also meet any additional admissions requirements stipulated by the participating departments, which may include but are not limited to holding a specific undergraduate degree, one or more prerequisite courses, or a standardized test score, such as the GRE.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.0 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission.
- The applicant provides a written explanation of her/his performance in the baccalaureate degree.
- The applicant provides a written explanation of why he/she will be successful in the integrative studies program.

Review the SIUE Admissions Policy for more information.

Application Deadline

Admission deadline is February 1 of the preceding spring semester. Additional applications will be considered after these dates on a space-available basis.

Curriculum

The MA and MS in integrative studies provide a focused multidisciplinary education path for students who have academic interests that cross academic disciplinary boundaries. Students are able to explore and make connections between different fields of study to meet their personal and professional goals.
The curriculum will incorporate existing courses from at least two departments. The program of study will be at least 37 credit hours and include the following:

- 1 credit hour of INTG 500 Proposal Development: Independent development of the thesis or final project proposal. Prerequisite: Consent of advisory committee.

- 6 credit hours of one of the following:
  - INTG 599 Research (1 – 6): Independent research at the master's level for the thesis option. May be repeated to a maximum of six hours. Prerequisite: Consent of advisory committee.
  - INTG 593 Final Project (1 – 6): Independent scholarly or creative activity at the master's level for the non-thesis option. May be repeated to a maximum of six hours. Prerequisite: consent of advisory committee.

  30 credit hours of graduate-level electives when two departments are involved and 30 credit hours plus at least nine credit hours for each additional department receiving enrollment credit
  - Must be split equally (e.g., 15 hours and 15 hours) or 40:60 (e.g., 12 hours and 18 hours) when two departments are involved and must be split so that no department has fewer than nine credit hours when three or more departments are involved
  - At least half of which must be at the 500 level
  - No more than three credit hours of which can be independent study (hosted through one of the participating departments)
  - No more than 1/3 of the credit hours of which can be transfer credit.
  - Exceptions to these requirements may be granted by the Dean of the Graduate School upon a written request with a justification for the exception.

Degrees Available

The following are the approved curricula under the integrative studies graduate program:

- Applied Communication Studies and Marketing (MS)
- Cultural Heritage and Resources Management (MA,MS)
- Engineering Management (MS)
- GIS Development and Database Administration (MS)
- Marketing Communications (MS)
- Media Management (MS)
- Organizational Communication and Management (MS)

Post-Baccalaureate Certificates

Integrative studies certificate programs provide professional advancement in multiple fields.

- Environmental Management
- Marketing and Public Relations
- Transportation Engineering and Construction Management

Integrative Studies - Engineering Management (MS)

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

The integrative studies degree with a focus in engineering management is intended for professionals with engineering, engineering technology or science backgrounds who are seeking advanced study for career enhancement. Through a combination of coursework from the Schools of Business and Engineering, you will gain knowledge and develop skills for managing technical people and projects in industry, business, government and other technology-based environments. With rapid changes in the global technology markets, it is imperative for managers to be equipped with management skills that will allow them to overcome organizational challenges and effectively handle personnel, resources and customers.

Curriculum

Students will take courses in the Schools of Business and Engineering, according to the master's in integrative studies program requirements:

- 30 credit hours of graduate-level courses, 12 credit hours of which are from the School of Business and 18 credit hours from the School of Engineering.
- At least half of the 30 credit hours of coursework must be at the 500-level.
- No more than three credit hours of the 30 credit hours of coursework can be independent study.
- All students will complete six credit hours of

integrative studies thesis or non-thesis capstone work.

Required Courses

School of Business

Four courses from the following:

- (3) MBA 522 Decision Making in Organizations
- (3) MBA 523 Negotiation and Interpersonal Skills for Managers
- (3) ACCT 524 Accounting for MBAs
- (3) MKTG 525 Marketing Analysis and Applications for Managerial Decision Making
- (3) CMIS 526 Information Systems and Technology
- (3) FIN 527 Corporate Finance
- (3) MGMT 570 Seminar in Human Resource Management
- 12 - Total Credits

School of Engineering

At most two courses from the following:

- (3) #CNST 464 Project Controls
- (3) IE 430 Managing Engineering and Technology
- (3) IE 445 Foundations of Financial Engineering
- (3) IE 462 Six Sigma, Quality and Process Improvement
- (3) IE 467 Total Quality and Taguchi Methods
- (3) IE 468 Simulation
- (3) IE 488 Lean Production Systems
- (3) IE 492 Special Topics in Industrial and Manufacturing Engineering: Supply Chain Analytics
- (3) *IE 492 Special Topics in Industrial and Manufacturing Engineering: Project Engineering
- 6 - Total Credits

At least four courses from the following:

- (4) *#CNST 501 Project Management
- (3) #CNST 525 Risk Management of Construction
- (3) #^CNST 550 Independent Study in Construction
- (3) IE 515 Engineering Optimization Models
- (3) IE 527 Intelligent Engineering Systems
- (3) *IE 531 Engineering Project Management
- (3) IE 557 Value Engineering
- (3) IE 528 Data Analytics and Mining
- (3) IE 583 Supply Chain Logistics Systems
- (3) IE 574 Product Development and 3D Printing
- 12-13 - Total Credits

*Only one of CNST 501 or IE 492 or IE 531 can count for credit
#At most three (3) CNST courses can be taken and at most two (2) CNST 500-level courses can be taken
^At most three (3) hours of CNST 550 can be taken for credit

Integrative Studies Capstone Project

(1) INTG 500 Proposal Development
(5) INTG 599 Thesis or (5) INTG 593 Final Project
6 - Total Credits

**International Student Applicants: Please note this program is not designated as a STEM field for OPT purposes.*

Admission Requirements

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA 3.0
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A letter of intent clearly articulating the applicant’s academic/career goals, how their academic background prepares them to undertake the program successfully, and how the program serves their goals must be submitted with the application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants must also meet any additional admissions requirements stipulated by the participating departments, which may include but are not limited

to holding a specific undergraduate degree, one or more prerequisite courses, or a standardized test score, such as the GRE.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.0 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission.
- The applicant provides a written explanation of her/his performance in the baccalaureate degree.
- The applicant provides a written explanation of why he/she will be successful in the integrative studies program.

Review the SIUE Admissions Policy for more information.

Faculty

Bradford Reed, PhD
School of Business

Xin Chen, PhD
Department of Mechanical and Industrial Engineering

Integrative Studies - GIS Development and Database Administration (MS)

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

In order to function effectively, every organization needs to make sure its database is always secure, available and performing at maximum capacity. A database administrator is a central figure in securing, maintaining and fine-tuning databases. A Geographic Information Systems (GIS) database stores geospatial information consisting of a combination of maps, 3D images, and space or time coordinates, among others. A database administrator who is trained to handle the complexities of large volumes of GIS data will be a sought after asset to any organization.

Career Outlook

With an Master of Science in integrative studies with a focus in GIS development and database administration, students will be equipped to handle the challenging demands of working with geospatial databases. According to the Bureau of Labor statistics, employment of database administrators is projected to grow 11 % through 2024, and the current median annual pay for this profession is $84,950.

Curriculum

Students will take courses in the Departments of Geography and Computer Management and Information Systems, according to the master's in integrative studies requirements:

- 30 credit hours of graduate-level courses, 18 credit hours of which are from the Department of Geography and 12 credit hours from the Department of Computer Management and Information Systems.
- At least half of the 30 credit hours of coursework must be at the 500-level.
- No more than three credit hours of the 30 credit hours of coursework can be independent study.
- All students will complete six credit hours of integrative studies thesis or non-thesis capstone work.

Required Courses

Geography

(3) GEOG 424 Vector Based Geographic Information Systems (GIS)
(3) GEOG 425 Raster Based Geographic Information Systems (GIS)
(3) GEOG 432 Python Scripting in GIS

Three courses from the following:

- (3) GEOG 423 Computer Mapping
- (3) GEOG 431 Web-based Online Mapping
- *^(3) GEOG 454 Topics in Geographic Techniques
- *(3) GEOG 525 Seminar in Geographic Information Systems
- (3) GEOG 573 GIS Modeling for the Natural

Environment

*Different topics may be taken under this course number
^Must be a GIS-related topic

Computer Management & Information Systems

(3) CMIS 563 Oracle SQL for Business Analytics
(3) CMIS 564 Database Design
(3) CMIS 566 Introduction to Business Analytics
Intelligence and Analytics

One course from the following:

- (3) CMIS 422 Information Security
- (3) CMIS 567 Business Analytics Capstone

Capstone Requirements

(1) INTG 500 Proposal Development
(5) INTG 599 Thesis or (5) INTG 593 Final Project

Admission Requirements

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment. Applicants may be required to take prerequisites or resolve any deficiencies before classified status is approved.
- Completion of GEOG 418 Geographic Information Systems
- College-level programming course or programming work experience
- College-level statistics course or comparable work experience
- Minimum GPA 3.0
- Grades in quantitative courses that indicate a high probability of success in completing the program
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A letter of intent clearly articulating the applicant’s academic/career goals, how his/her academic background prepares him/her to undertake the program successfully, and how the program serves his/her goals must be submitted with the application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.0 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission.
- The applicant provides a written explanation of their performance in the baccalaureate degree.
- The applicant provides a written explanation of why they will be successful in the integrative studies program.

Review the SIUE Admissions Policy for more information.

Graduation Requirements

Students must conduct an oral defense of the thesis or project with an advisory committee consisting of a minimum of three graduate faculty. Each participating department must be represented. Students must complete a minimum of 37 graduate credit hours.

Review the graduation policy for more information.

Integrative Studies - Marketing Communications (MS)

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

The messages and the media that businesses deploy to communicate with their target market can make or break their marketing efforts. In designing schemes for marketing products, a primary objective is to create and sustain demand and preference for the product. With the proliferation of traditional, as well as social media platforms, it is important for a company to strategically choose communication

tools that will position the product or the company in the minds of the target customer.

Career Outlook

A Master of Science in integrative studies with a focus in marketing communications will equip students with knowledge, strategies and tools for building an effective marketing campaign across a spectrum of communication media. Career opportunities abound for marketing communications professionals in fields such as public relations, social media, digital advertising, and corporate communications, among others.

Curriculum

Students will take courses in the Departments of Mass Communications and Management and Marketing, according to the master's in integrative studies requirements:

- 30 credit hours of graduate-level courses, 18 credit hours of which are from the Department of Mass Communications and 12 credit hours from the Department of Management and Marketing.
- At least half of the 30 credit hours of coursework must be at the 500-level.
- No more than three credit hours of the 30 credit hours of coursework can be independent study.
- All students will complete six credit hours of integrative studies thesis or non-thesis capstone work.

Required Courses

Management and Marketing

(3) MKTG 525 Marketing Analysis and Applications for Managerial Decision Making
(3) MKTG 530 Marketing Planning and Strategy
(3) MKTG 534 Advertising Research

One of the following:

- (3) MKTG 466 Marketing on the Internet
- (3) MKTG 470 Sport Marketing
- (3) MKTG 471 Advertising Policy and Management
- (3) MKTG 472 Sales Policy and Management
- (3) MKTG 474 Retail Policy and Management
- (3) MKTG 475 Consumer Behavior
- (3) MKTG 476 International Marketing
- (3) MKTG 542 Promotion Management
- (3) MKTG 544 Marketing Research for Decision Making

Mass Communications

(3) MC 500 Mass Communications Theory
(3) MC 501 Research Methods for Mass Communications
(3) MC 502 Media Campaigns

Three of the following:

- (3) MC 402 Media Management
- (3) MC 422 Writing for the Corporate and Institutional Market
- (3) MC 440 Visual Media Analysis
- (3) MC 441 Advanced Writing and Designing for Digital Media
- (3) MC 471 Special Topics in Mass Media
- Other courses approved by the Department of Mass Communications

Capstone Requirements

(1) INTG 500 Proposal Development
(5) INTG 599 Thesis or (5) INTG 593 Final Project

Admission Requirements

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment. Applicants may be required to take prerequisites or resolve any deficiencies before classified status is approved.
- Minimum GPA 3.0
- Detailed curriculum vitae (CV)
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A letter of intent clearly articulating the applicant's academic/career goals, how his/her academic background prepares him/her to undertake the program successfully, and how the program serves his/her goals must be submitted with the application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the

Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.0 may be considered if all the following conditions are met:

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission.
- The applicant provides a written explanation of their performance in the baccalaureate degree.
- The applicant provides a written explanation of why they will be successful in the integrative studies program.

Review the SIUE Admissions Policy for more information.

Integrative Studies - Media Management (MS)

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

The integrative studies degree with a focus in media management provides the necessary foundation of management and leadership principles for professionals who are already in, or are aspiring to work in, the media industry. With the ever-changing landscape in the media business, it is important to have astute managers who are ready to meet the demands of the market.

Career Outlook

Graduates of the integrative studies degree with a focus in media management can have a career in publishing or work as a public relations director or producer. The job outlook will depend on the aspect of media that is involved. With advances in internet media, continued growth in publishing is expected.

Curriculum

Students will take courses in the Department of Mass Communications and the School of Business, according to the master's in integrative studies program requirements:

- 30 credit hours of graduate-level courses, 18 credit hours of which are from the Department of Mass Communications and 12 credit hours from the School of Business.
- At least half of the 30 credit hours of coursework must be at the 500-level.
- No more than three credit hours of the 30 credit hours of coursework can be independent study.
- All students will complete six credit hours of integrative studies thesis or non-thesis capstone work.

Required Courses

Mass Communications

- (3) MC 500 Mass Communication Theory
- (3) MC 501 Research Methods for Mass Communications
- (3) MC 502 Media Campaigns
- (3) MC 401 Media Law & Policy
- (3) MC 402 Media Management
- (3) MC 471 Special Topics in Mass Media
- 18 - Total Credits

School of Business

- (3) MBA 521 Quantitative Analysis
- (3) ACCT 524 Accounting for MBAs
- (3) MKTG 525 Marketing Analysis and Applications for Managerial Decision Making
- (3) MGMT 475 Entrepreneurship and Small Business Management
- 12 - Total Credits

Integrative Studies Capstone Project

(1) INTG 500 Proposal Development
(5) INTG 599 Thesis or (5) INTG 593 Final Project
6 - Total Credits

Admission Requirements

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA 3.0
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent

- A letter of intent clearly articulating the applicant's academic/career goals, how their academic background prepares them to undertake the program successfully, and how the program serves their goals must be submitted with the application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants must also meet any additional admissions requirements stipulated by the participating departments, which may include but are not limited to holding a specific undergraduate degree, one or more prerequisite courses, or a standardized test score, such as the GRE.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.0 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission.
- The applicant provides a written explanation of her/his performance in the baccalaureate degree.
- The applicant provides a written explanation of why they will be successful in the integrative studies program.

Review the SIUE Admissions Policy for more information.

Faculty

Bradford Reed, PhD
School of Business

Suman Mishra, PhD
Department of Mass Communications

Integrative Studies - Organizational Communication and Management (MS)

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

In order to be competitive in this ever-growing global economy, it is important for organizational leaders to have effective communication and managerial skills. A competent manager is cognizant of the importance of an efficient communication system as the building block of strong organizations. In addition to being a source of information for organizational members, communication is a crucial tool for promoting motivation and altering attitudes in order to advance the mission and goals of an organization. Successful managers are equipped to recognize barriers in communication and to strategize and devise preventive ways to avoid those barriers.

Career Outlook

With an integrative studies degree with a focus in organizational communication and management, one can work for profit or nonprofit corporations, government agencies, or set up their own business. Among the career options that may be pursued are event planners, human resources managers, mediators, community relations directors and public administrators. According to the Bureau of Labor Statistics, the projected job growth in this field is roughly 9% through 2024.

Curriculum

Students will take courses in the Departments of Applied Communication Studies and Management and Marketing, according to the master's in integrative studies program requirements:

- 30 credit hours of graduate-level courses, 18 credit hours of which are from the Department of Applied Communication Studies and 12 credit hours from the Department of Management and Marketing
- At least half of the 30 credit hours of coursework must be at the 500 level
- No more than three credit hours of the 30 credit

hours of coursework can be independent study
- All students will complete six credit hours of integrative studies thesis or non-thesis capstone work

Required Courses

Management and Marketing

(3) MBA 521 Quantitative Analysis
(3) MBA 522 Decision Making in Organizations
(3) MBA 523 Negotiation and Interpersonal Skills for Managers

One of the following:

(3) MGMT 551 Managing Organizational Change and Innovation
(3) MGMT 570 Seminar in Human Resource Management
(3) MGMT 580 Employment Law for Managers
(3) MBA 533 Leadership, Influence and Managerial Effectiveness

Applied Communication Studies

(3) ACS 500 Seminar in Communication Theory
(3) ACS 501 Communication Research Methods and Tools
(3) ACS 540 Survey of Organizational Communication Research
(3) ACS 541 Seminar in Organizational Culture
(3) ACS 542 Communication Consulting

One of the following:

(3) ACS 550 Seminar in Public Relations
(3) ACS 551 Nonprofit Public relations
(3) ACS 552 Corporate Social Responsibility
(3) ACS 553 Issues Reputation Management
(3) ACS 554 Ethics in Public Relations and Communication Management
(3) ACS 557 International Public Relations

Integrative Studies Capstone Requirements

(1) INTG 500 Proposal Development
(5) INTG 599 Thesis Research or (5) INTG 593 Final Project

Admission Requirements

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment. Applicants may be required to take prerequisites or resolve any deficiencies before classified status is approved.
- Minimum GPA of 3.25
- A faculty member from applied communication studies who has agreed in writing to serve as a graduate mentor must be identified by the applicant in order to be considered for acceptance into the program. Applicants are encouraged to contact Dr. Wai Cheah, Dr. Min Liu, Dr. Sorin Nastasia, Dr. Debbie Sellnow-Richmond, Dr. Scott Sellnow-Richmond, or Dr. Sarah VanSlette.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A letter of intent clearly articulating the desired focus areas, the applicant’s academic/career goals, how his/her academic background prepares him/her to undertake the program successfully, and how the program serves his/her goals must be submitted with the application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.25 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission
- The applicant provides a written explanation of her/his performance in the baccalaureate degree
- The applicant provides a written explanation of why he/she will be successful in the integrative studies degree program

Review the SIUE Admission Policy for more information.

Kinesiology

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Successful completion (grade C or better) of one semester of an anatomy and physiology course
- Undergraduate GPA of at least 2.75 on a 4.0 scale
- Only courses in which the student earned a grade of “B” or better will be considered for transfer credit
- For international students, a minimum total internet-based TOEFL score of 100 is required to be considered for admission
- Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn six-nine hours of graduate-level credit for courses taken during their senior year.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Admission may be granted to applicants who have a bachelor’s and meet the aforementioned criteria, although any prerequisites necessary to study in a particular specialization are at the discretion of the program advisor.

Selection for admission is determined by the graduate faculty in the Department of Applied Health. The student’s GPA and coursework content from previous professional preparation will be used to determine qualifications for entrance into the program.

Review the SIUE Admissions Policy for more information.

Application Deadline

The deadline is approximately one month before the start of classes (definite dates are on the application).

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

Near the completion of the program of study, each student is required to select either a non-thesis option or research thesis option. Students pursuing the non-thesis option must choose an internship for three credit hours. Students choosing to complete the thesis will work with their advisor to organize a committee of three faculty members to supervise, monitor and evaluate the thesis for three to six credit hours. All courses in the exercise physiology program are offered in an evening format.

Exercise Physiology Specialization (30 hours)

Core Courses (27 hours)
(3) KIN 501 Exercise Psychology
(3) KIN 509 Research Methods in Kinesiology
(3) KIN 512 Advanced Exercise Physiology
(3) KIN 514 Advanced Exercise Assessment and Prescription
(3) KIN 516 Advanced Cardiovascular and Respiratory Physiology
(3) KIN 517 Pathophysiology and Treatment of Obesity
(3) KIN 518 Exercise Endocrinology
(3) KIN 541 Advanced Human Nutrition and Metabolism
(3) KIN 519 Advanced Concepts and Techniques in Strength and Conditioning OR KIN 513 Clinical Exercise Physiology (Choose one)

Capstone Experience
Students Must Complete One of Two

Options (3 hours)

- Non-Thesis Option: KIN 555 Internship in Exercise Physiology (3) and national certification exam
  OR
- Thesis Option: KIN 599 Thesis (3)

Course Sequence

Students in the non-thesis option are able to begin in the fall, spring or summer and can complete all degree requirements in 12, 18 or 24 months. Students in the thesis option typically require two academic years to complete course curriculum.

Non-Thesis Option

The non-thesis option is for students who are not interested in pursuing a doctorate. Through classroom learning, laboratory experience and true hands-on experience, the non-thesis exercise physiology program produces exceptional graduates who are well prepared for the professional work environment. The option provides coursework and laboratory experience that prepares students for careers in adult fitness, hospital or corporate-based wellness programs, cardiac rehabilitation, strength and conditioning specialists, or professional careers (e.g., physical therapy, occupation therapy, dentistry, pharmacy, etc.)

Thesis Option

The thesis option is intended to give exceptional students knowledge in basic medical and scientific areas to prepare them to pursue a doctoral degree in exercise physiology. It should be pursued only by students who have a serious commitment to the science of exercise physiology. Students focus on the study of the human body's responses and adaptations to physical activity. Students in the thesis option will typically take two academic years to complete the coursework and research thesis. The student and faculty advisor will match thesis and coursework with the goals of the students to provide an exceptional learning experience.

Admission to a graduate program in kinesiology does not guarantee the opportunity to complete a thesis. In order to complete a thesis, students must do the following:

- Meet with the professor(s) with whom you would like to work to discuss your research interests. Submit a letter of interest to the professor(s) with whom you would like to work. Include the following items in your letter of interest for consideration to the thesis program.
  - Explain your research interests and goals and how they match with the faculty member whom you plan to work with on your thesis project. Include your breadth and depth of research experience (we understand that it may be limited), your potential fit with the specified faculty's research agenda, and what potential benefits you plan to gain.
  - Provide examples of leadership potential and your ability to work with a diverse research team. Leadership and teamwork examples can be from academic, professional or community activities or employment.
  - What are your career or academic ambitions following the completion of your graduate degree? Include short- (two to three years) and long-term goals (five to six years).
  - As a student or faculty member, science and research will involve several moments of trial and error before achieving success. Provide an example of when you failed at something you were heavily invested in and how you dealt with and learned from your failure.
- Submit an example of your writing to the professor(s) with whom you would like to work.

Faculty will choose thesis students based on a combination of potential for success, a match in research interests between the faculty member and the student and availability of the faculty member.

Degrees Available at SIUE

- Master of Science in Kinesiology with a specialization in Exercise Physiology

Combined Degree

- Accelerated Combined BS in Exercise Science and MS in Exercise Physiology

Graduation Requirements

In the final semester, all non-thesis students will be required to take a National Certification Exam. For

example, the American College of Sports Medicine (ACSM) Exercise Physiologist Certification Exam, ACSM Clinical Exercise Physiology Certification Exam, or the National Strength and Conditioning Association (NSCA) Strength and Conditioning Coach Certification Exam will fulfill this requirement. Students who elect to prepare a thesis must present an oral defense of the thesis.

Review the graduation policy for more information.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Applicants must have an undergraduate GPA of at least 2.75 (A=4.0) to be considered for admittance into the program.
- Only courses in which the student earned a grade of “B” or better will be considered for transfer credit.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Admission may be granted to applicants who have a bachelor’s degree and meet the aforementioned criteria, although any prerequisites necessary to study in a particular specialization are at the discretion of the program advisor.

Selection for admission is determined by the graduate faculty in the Department of Applied Health. The student’s GPA and coursework content from previous professional preparation will be used to determine qualifications for entrance into the program.

Review the SIUE Admissions Policy for more information.

Application Deadline

The application deadline is May 1 for summer applicants and August 1 for fall applicants. Applications may still be accepted after these deadlines if space allows.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

Students may begin in the fall, spring or summer semesters. Due to the versatility of the program, students can complete the program in as little as one year. However, students typically take four to five semesters to complete their degree. Students can choose either the thesis or non-thesis option.

Thesis Option-30 hours; Non-Thesis Option-30 hours

Required Courses (15 hours)

KIN 501 Exercise Psychology: Provides an in-depth analysis of psychosocial factors related to preventive and rehabilitative exercise behavior.
KIN 502 Sport Psychology: Explores the psychological factors influencing participation patterns and performance in sport, and effects of sport upon psychological responses.
KIN 503 Sport Sociology: Provides an in-depth analysis of the interaction between physical activity and society including the social and cultural processes and institutions which influence, and are influenced by physical activity.
KIN 506 Exercise and Sport Psychology for Special Populations: Provides an in depth analysis of the biological, psychological, social, environmental, and political factors that are related to successful application of exercise and sport psychology principles with special populations (e.g., injured, youth, differently abled).
KIN 509 Research Methods in Kinesiology: Prepare students to read, understand, and evaluate research in the field of kinesiology.

Thesis Option (15 hours)

KIN 599 Thesis in Kinesiology: Students selecting the thesis track must earn a minimum of three credit hours. This course may be repeated for a maximum of six hours.
Electives (9-12 credit hours) It is recommended that thesis students choose a statistics course to fulfill one elective requirement in consultation with their advisor. Options for statistics courses include PBHE 520 and PSYC 520.

The thesis option is ideal for students interested in pursuing a doctoral degree in sport psychology and exercise psychology related fields. Students will learn research processes and investigate the impact of psychological factors in sport and/or exercise. Students will have opportunities to present at professional conferences and publish in scientific journals. Students pursuing the thesis option will typically take two academic years to complete the coursework and research thesis. The student and faculty advisor will match thesis and coursework with the goals of the student to provide an exceptional learning experience.

Admission to a graduate program in kinesiology does not guarantee the opportunity to complete a thesis. Students choosing to complete a thesis must do the following:

- Meet with the professor(s) with whom you would like to work, to discuss your research interests
- Submit a letter of interest to the professor(s) with whom you would like to work. Please use this form to guide your letter.
- Submit an example of your writing to the professor(s) with whom you would like to work

Faculty will choose thesis students based on a combination of the students potential for success, a match in research interests between the faculty member and the student, as well as the availability of the faculty member.

Non-Thesis Option (15 hours)

The non-thesis option is for students who are not interested in pursuing a doctoral degree.

KIN 598 Final Semester in Exercise and Sport Psychology: This course is intended for non-thesis students to complete their final project. The course will help each student navigate through project design and implementation.
Electives (12 credit hours)

Electives

KIN 504 Counseling Skills for Sport Psychology: The course will follow a scientist-practitioner model with an emphasis on theories grounded in counseling and performance psychology and the practical application of said theories.
KIN 505 Psychology of Coaching: Focuses on using best practices in coaching based on research and readings by those in the field.
KIN 507 Physical Activity Promotion: Designed to explore practical and theory-based strategies for increasing physical participation and adherence among various populations.
KIN 508 Professional Standard and Ethics in Sport Psychology: This course will deal with ethical issues within the field of applied sport psychology.
KIN 511 Fundamental of Exercise and Fitness: This course will help students develop knowledge, skills, and abilities regarding exercise and fitness so they can incorporate exercise into their own lives and promote an active lifestyle to others.
KIN 550 Selected Topics in Kinesiology: Analysis of reports, current problems, trends, and research in exercise science. Repeatable up to 12 hours at discretion of advisor, provided no topic is repeated.
KIN 555 Internship in Exercise Physiology: Individualized planned experience in agency, organization, or institution appropriate to student's area of professional interest.
KIN 580 Readings in Kinesiology: Supervised reading in selected topics.

Degrees Available at SIUE

- Master of Science in Kinesiology with a specialization in Exercise and Sport Psychology

Graduation Requirements

Students may select either a thesis or non-thesis option. Students who elect to prepare a research thesis in lieu of the non-thesis project must also present an oral defense of the thesis by a written

and oral assignment to incorporate both research and application of the master's program material. To complete a thesis, a student must be accepted by a faculty member based on the requirements outlined on the website.

In the final semester non-thesis students will be required to complete a comprehensive project determined in close consultation with one's graduate advisor and other faculty as appropriate. The project is intended to develop greater breadth and depth of understanding of the field and the application of knowledge that will lead to the implementation or presentation of a plan to a profession, community group or an organization as approved by the program director. Concludes as the student presents orally the findings related to his/her project and defends conclusions against questions raised by the faculty advisor.

Review the graduation policy for more information.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Undergraduate GPA of at least 2.75 (A=4.0)
- Only courses in which the student earned a grade of "B" or better will be considered for transfer credit.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Admission may be granted to applicants who have a bachelor's degree and meet the aforementioned criteria, although any prerequisites necessary to study in a particular specialization are at the discretion of the program advisor.

Selection for admission is determined by the graduate faculty in the Department of Applied Health. The student's GPA and coursework content from previous professional preparation will be used to determine qualifications for entrance into the program.

Students are eligible to apply for the physical education and sport pedagogy program if they are certified or are certifiable to teach in the public schools. The master's program includes a balance of technology-assisted on-campus courses (fall, spring and summer). Normal time to completion is approximately two years. Practical application of research-based and developmentally appropriate teaching practices is emphasized by the program. No more than nine graduate hours may be taken toward the master's as an unclassified graduate student.

Review the SIUE Admissions Policy for more information.

Application Deadline

The deadline is approximately one month before classes begin (definite dates can be found on the application).

How to Apply

The general requirements for admission and retention for this program are the same as for the Graduate School.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

Required Courses (27 hours)

KIN 501 Exercise Psychology
KIN 521 Analysis of Research in Physical Education and Coaching
KIN 522 Analysis of Teaching Behaviors in Sport and Physical Education
KIN 524 Assessment in Sport and Physical Education
KIN 525 Physical Activity and Mental Health

KIN 526 Diversity in Physical Education and Sport
KIN 527a Action Research in Physical Education I
KIN 527b Presentation of Action Research in Physical Education II
KIN 550 Special Topics in Kinesiology

Non-Thesis (3 hours)

Electives

Degrees Available at SIUE

- Master of Science in Education in Kinesiology with a specialization in Physical Education and Coaching Pedagogy (no teacher certification)

Graduation Requirements

Students must demonstrate competence in the content comprising the major (kinesiology and area of emphasis) via written and oral presentations of Action Research Projects. The action research project can be completed remotely. Students may submit a research paper to the review committee or develop a presentation to be shared with the research committee via Zoom.

Review the graduation policy for more information.

Management and Information System

Admission Requirements

Admission into the MIS program is selective and based on a variety of factors. The program, at its discretion, may request GRE or GMAT test scores, other supporting documents, or interviews that demonstrate the applicant's ability to successfully pursue a Master of Science in Management Information Systems degree. At least two years of work experience is recommended for students entering the MIS program.

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum undergraduate GPA of 2.50 on a 4.0 scale and a minimum cumulative GPA of 3.0/4.0 in any graduate coursework.*
- Applicants should have grades in quantitative courses that indicate a high probability of success in completing the MIS program.**
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Submission of a Statement of Purpose, detailing the applicant's background and career plans
- Current resume

*Applicants with a cumulative GPA of 2.75/4.0 or lower in undergraduate coursework may be required to submit recent GMAT or GRE scores after an initial review of the application.

**Review of quantitative courses will be conducted by the MIS program director.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Students recently admitted to the MS MIS program have had, on average, a cumulative undergraduate GPA of 3.2 (A=4.0).

Review the SIUE Admission Policy for more information.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Program of Study

The program requires 30 semester hours and consists of seven core courses and three elective courses. Foundation knowledge areas may be required depending on student credentials at the time of admittance. Foundation knowledge areas do not count towards graduation for the MS MIS degree. Students in the program must maintain a GPA of at least 3.0 on a 4.0 scale in all graduate courses. No credit is allowed toward degree completion for courses in which a grade below C (2.0) is earned.

Program Foundation Knowledge Areas

Students entering the program will need the background based on completed academic coursework in the past seven years as detailed below. Students lacking foundational coursework will be required to complete self-paced, asynchronous online modules in their first semester. For students requiring additional foundation in English language proficiency, an additional course may be required. The program foundation modules do not count towards completion of the MS in MIS.

Proficiency in:

- English language and writing skills
- Hardware and systems software
- Programming logic and language: C++, Visual Basic, Java, Python, or R
- Financial accounting

At the time of admission, the MS MIS Graduate Program Director will identify any required program foundation requirements. The required modules will be assigned, and students are expected to satisfy all assigned foundation modules in their first semester.

Management and Information Systems Core (21 hours)

- (3) CMIS 526 Information Systems and Technology
- (3) CMIS 538 Managing the Cloud
- (3) CMIS 540 Project Management Fundamentals and Best Practices
- (3) CMIS 564 Database Design
- (3) CMIS 570 Software Systems Design
- (3) MBA 521 Quantitative Analysis
- (3) CMIS 580 MIS Capstone

Elective Courses (9 hours)

Elective courses enable students to add a specialized focus to their study of information systems. Examples of specialized focuses include, but are not limited to:

- Project Management
- Business Analytics
- Systems Design, Development and Implementation
- Database Administration and Database Programming
- Enterprise-Wide Information Systems (ERP)

A formal project management specialization may be completed by selecting electives that fulfill requirements for the specialization. A formal business analytics specialization may be completed by selecting electives that fulfill requirements for the specialization.

The MS MIS program director maintains the current list of approved electives. Students must submit a written request to the MS MIS program director for approval to deviate from the approved elective list.

Students not possessing prior professional work experience within the information systems field will be encouraged to select CMIS 587 Information Systems Internship as one of their electives. This is to ensure that students not possessing prior work experience are afforded the opportunity to practice learned skills in a supervised information technology environment prior to degree completion.

Degrees Available at SIUE

- Master of Science in Management Information Systems (MS MIS)

Specializations

- Business Analytics
- Project Management

Online Specializations

- Cybersecurity Management

Post-Baccalaureate Certificate

- Business Analytics

Graduation Requirements

Students must enroll in CMIS 580 MS MIS Capstone course for three credits. Each graduation candidate must pass this capstone course, conducted by the graduate faculty of the department. The MS MIS Capstone course will require candidates to demonstrate an appropriate standard of scholarship and to provide evidence of their ability to think critically, to apply knowledge gained through the program, to draw and defend conclusions, and to complete work in a creditable manner. The course will address topics covered in the MS MIS core courses, and may also examine candidates on knowledge and understanding of topics covered in elective courses they completed.

When do I sign up for the Capstone course?

All MS MIS Core courses and all Program Foundation courses / modules must be completed before you register for the Capstone course. To be eligible to register for CMIS 580 MS MIS Capstone, you must also be a graduate student in good standing at SIUE, which includes the requirement that your GPA be 3.0 or above.

What constitutes "passing" the MS MIS Capstone course?

A student must earn at least a B grade to pass the course and be eligible for graduation.

What if I don't pass?

Any student who does not pass the Capstone course with a grade of B or higher will be required to undergo and pass a secondary assessment. This secondary assessment and the mode of delivery will be determined by the MS MIS program graduate faculty. Potential modes for such secondary assessments would include a written comprehensive exam or an oral comprehensive exam, or the student will be required to repeat the course.

Review the graduation policy for more information.

Business Analytics

The business analytics specialization equips future business leaders with an understanding of the fundamentals of business analytics, exposure to concepts of analytics and information-driven decision making in various functional business domains, and experience in applying concepts of business analytics in a variety of industry-leading software platforms.

Coursework in the specialization balances theoretical concepts with applied exercises, cases, and projects. Students have the opportunity to apply concepts of business analytics to a real-world project addressing substantive business questions. These experiences enable the student that specializes in business analytics to emerge with a fundamental grounding in:

- Concepts of business analytics
- Process of designing and executing appropriate analyses based on the business issues involved
- Delivery of findings to a management audience

In addition to the MS in MIS core requirements (CMIS 526, 538, 540, 564, 570, 580, and MBA 521), students choosing the specialization in business analytics must complete nine credit hours including:

- (3) CMIS 566 - Introduction to Business Intelligence and Analytics
- (3) CMIS 567 - Business Analytics Capstone

And at least one of the following:

- (3) CMIS 527 - Information Security and Analytics
- (3) CMIS 568 - Advanced Database Programming in Oracle
- (3) CMIS 562 - Data Visualization in Business

Also Available
Accelerated Online MS in MIS with a Business Analytics Specialization

Cybersecurity Management

The STEM-designated Cybersecurity Management specialization prepares students for careers requiring knowledge of cybersecurity fundamentals, the concepts of cybersecurity management, and the application of business analytics in cybersecurity.

Coursework in the specialization balances theoretical concepts with applied exercises, cases, and projects to develop the skills needed to enhance organizational cybersecurity readiness. Students also have opportunities to earn industry recognized certifications in cybersecurity.

In addition to MS in MIS specialization in cybersecurity management core requirements of twenty-one credit hours (CMIS 526, 530, 532, 534, 538, 566, and MBA 521), students choosing the cybersecurity management specialization must complete nine credit hours in one of the following focus areas:

Management

- (3) CMIS 540 – Project Management Fundamentals OR CMIS 549 Agile Project Management
- (3) CMIS 536 – Advanced Cybersecurity Topics
- (3) CMIS 539* – Cybersecurity Practical Applications

Analytics

- (3) CMIS 527 - Information Security and Analytics
- (3) CMIS 562 – Data Visualization
- (3) CMIS 567* – Data Analytics Project for Business

*Serves as the exit requirement for the cybersecurity specialization.

Also Available
Accelerated Online MS in MIS with a Business Analytics Specialization

Project Management

The project management specialization equips future business leaders with an understanding of the fundamentals of project management and exposure to areas of key interest to project managers, such as:

- Project risk
- Procurement
- Quality management
- Change management

Coursework addresses many of the concepts covered in the project management certification exam that is administered by the Project Management Institute.

Coursework in the specialization balances theoretical concepts with applied exercises and cases. Students have the opportunity to apply project management concepts and processes in real-world scenarios. Due to these experiences, students graduate with a much better understanding of the dynamics and challenges associated with projects, as well as effective practices for managing them.

In addition to the MS in MIS core requirements (which include MIS 540 Project Management Fundamentals and Best Practices), students choosing the project management specialization must complete twelve credit hours. The following four courses are required:

- (3) CMIS 540 - Project Management Fundamentals and Best Practices

Three of the following courses:

- (3) CMIS 546 - Advanced Project Management Concepts
- (3) CMIS 548 - Program and Project Portfolio Management
- (3) CMIS 549 - Agile Project Management
- (3) MBA 523 - Negotiation and Interpersonal Skills for Managers

SIUE Project Support Center
The project management hub for the School of Business, the Project Support Center provides access to project management templates associated with the *Techniques for Managing Projects* textbook.

Project Management Institute and PMP Credential

The Project Management Institute (PMI) is the leading professional membership association for the project management profession. Explore the PMI website to learn more about the project management profession and certification.

Also Available
Accelerated Online MS in MIS with a Project Management Specialization

Marketing Analytics & Insights

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA of 2.50
- Current resume demonstrating post-bachelor's degree professional work experience

Admission is selective; the program, at its discretion, may request GRE or GMAT test scores, other supporting documents, or interviews that demonstrate the applicant's ability to successfully pursue the MSMAI degree.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Admission to the MSMAI program is highly selective and competitive. The program director, in consultation with marketing faculty, decides who will be admitted based on a balanced appraisal of each component of the applicant's credentials. As a general rule, strong undergraduate performance (high GPA) is an essential prerequisite for admission to the MSMAI program. . Applicants who are denied admission may request a review of their credentials by the MSMAI Admissions Review and Retention Committee which makes its recommendation to the program director. The decision of the program director is final.

Review the SIUE Admission Policy for more information.

Students are expected to enter the program with competencies in statistics and statistical software and business fundamentals. Admitted students who lack these competencies may satisfy the requirements in the following manner:

1. Statistics and Statistical Software: Students without a background in statistics and statistical software will be required to complete: (a) MS 251 (Statistical Analysis for Business Decisions) or its equivalent, and (b) PAPA 412/420 (Quantitative Analysis) or its equivalent. Based on the evidence provided by the student, this requirement may be waived by the program director. Completion of these courses will not earn academic credit in the MSMAI program.
2. Business fundamentals: Students without a background in business fundamentals will be required to take three business courses to meet the business fundamentals requirements for graduate study in marketing research. These courses must include: (a) MKTG 525 (Marketing Analysis and Applications for Managerial Decision Making) and (b) two of the following: MBA 522, MBA 523, ACCT 524, CMIS 526, FIN 527, ECON 528, PROD 529 or the equivalent. The final selection of these courses must be decided in consultation with the program director. Based on the evidence provided by the student, this requirement may be waived by the program director.

Required Credit Hours/Tuition and Fees

- 30 credit hours
- Visit the Paying for College website for detailed tuition information

Program of Study

Students pursuing the MSMAI must complete a minimum of 30 semester hours beyond the business fundamentals and statistics competencies.

Program courses (27 hours): MKTG 540, MKTG 544, MKTG 546, MKTG 547, MKTG 548, MKTG 549, CMIS 562, MKTG 598A, MKTG 598B

Elective course (3 hours): Taken from the following: MKTG 534, 541, 560, 562, 563, or 597

Other business electives consistent with the program's goals and student's career objectives may be taken with approval from the program director. Only three hours of 400-level coursework may be used to satisfy MSMAI requirements.

Degrees Available at SIUE

- Master of Science in Marketing Analytics and Insights

Graduation Requirements

In addition to completing the required coursework, students must also complete a two-course applied capstone project sequence (MKTG 598A and MKTG 598B). In this two-course sequence, the student designs and completes a MAI project for a real client in an integrated experience and will ordinarily be the last courses taken. The applied capstone project is conducted under faculty supervision and includes a structured proposal, execution phase, and final presentation.

Students who earn a grade below B will be given a second opportunity to complete the course in a satisfactory manner. Performance of individuals who fail to earn a B or above in the second attempt will be reviewed by two additional members of the marketing faculty who may recommend that the student be dropped from the program. In rare instances, students may be permitted a third attempt to earn a grade of B or above under another instructor.

Review the graduation policy for more information.

Hands-on Learning

Corporate Sponsored Internship Program

A number of corporations and marketing research agencies provide funding and opportunity to gain valuable research experience for qualified MMR students. All MMR internships carry a monthly stipend of $1,100 and a complete tuition waiver. Approximately 75-80% of students participate in the corporate-sponsored internship program throughout the entirety of their course of study. All MMR students also participate in a mandatory client marketing research project as part of their integrated final capstone course.

Business Analytics Specialization

Required Credit Hours/Tuition and Fees

- 37
- Visit the Paying for College website for detailed tuition information

An MMR student may choose to pursue a specialization in business analytics. To complete the specialization, the MMR student must satisfactorily complete a minimum of 37 hours of coursework as outlined in the Program of Study in the graduate catalog and satisfy the following business analytics requirements:

- MKTG 546 – Quantitative Methods (3)
- MKTG 544 – Information Fundamentals (3)
- CMIS 566 – Introduction to Business Intelligence and Analytics (3)
- CMIS 567 – Business Analytics Capstone course and
- Elective courses (6 hours): Taken from the following:
  - CMIS 527, MKTG 534, 560, 561, 562, and 563 (elective choices must be approved by the program director)

Mathematics

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Undergraduate background that includes MATH 150, 152, 223, 250 and 321 or their equivalents.
- GPA of at least 2.7 (A=4.0) in mathematics and statistics courses.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A brief statement of educational and career goals and interests, together with any supporting documents
- A description of any special qualifications or relevant professional experience.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

In some cases, applicants who meet the requirements for admission to the Graduate School, but do not have the required background in mathematics as indicated above, may register as unclassified graduate students until deficiencies have been satisfied to permit admission to degree-seeking status.

It is recommended that students in the computational and applied mathematics or statistics and operations research specializations have a working knowledge of algorithmic programming language. It is also recommended that students in the theoretical mathematics or computational and applied mathematics specializations have a course in real analysis equivalent to MATH 350 at SIUE.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

The program of study requires a minimum of 30 semester hours of graduate credit, at least 15 of which must be at the 500-level. Students must maintain an overall grade point average of 3.0 for all courses taken in the program.

Students pursuing a double major must complete all required courses in one of the options below. Six to nine hours of the electives may be waived for students who complete a double major. These students must complete at least nine hours of 500-level mathematics, statistics or operations research courses, not counting the thesis or research paper.

Students may choose from four specializations:

Pure Mathematics
Statistics and Operations Research
Computational and Applied Mathematics
Postsecondary Mathematics Education

Degrees Available at SIUE

- Master of Science in Mathematics

A secondary education mathematics teaching focus is available with our Master of Science in Education (MSEd) in curriculum and instruction.

Specialized Learning Opportunities

- Computational and Applied Mathematics Specialization
- Postsecondary Mathematics Education Specialization
- Pure Mathematics Specialization
- Statistics and Operations Research Specialization
- Mathematics Professional Development Sequences

Combined Degree

- Accelerated Combined BS in Mathematical

Studies and MS in Mathematics with Specialization in Computational and Applied Mathematics
- Early Entry BS and MS in Mathematics

Post-Baccalaureate Certificate

- Data Science

Early Entry MS in Mathematics

The Department of Mathematics and Statistics offers undergraduate students the opportunity to begin coursework towards the Master of Science during the senior year of their Bachelor of Science program. Students with at least 90 semester hours and an overall GPA of 3.0 (A=4.0) in mathematics, engineering and physical science courses may be admitted to the BS/MS program that allows them to earn graduate-level credit (400- and 500-level) during their senior year. No course can be counted for both graduate and undergraduate credit.

An application for degree-seeking status as a graduate student must be approved by the Graduate School and the Graduate Admissions Committee in Mathematics. A program outline must also be submitted for approval by the graduate program director in mathematics prior to enrollment in any courses to be included as a part of the master's program. Official admission to the graduate program and the status of classified graduate student is made only after the award of baccalaureate degree. In no case will a graduate degree be conferred before all requirements for both degrees have been completed.

Please note: Only current SIUE students are eligible for this program.

Global Experience

With a diverse group of faculty members from China, Greece, Japan, Korea, Malaysia, the Philippines, and the United States, SIUE is an ideal place for an international student to receive individual attention from faculty members that will help propel them toward graduate school or their chosen career.

Graduation Requirements

For students who complete a thesis or research paper, the final examination consists of an oral presentation based on the content of the thesis or research paper. The examination is administered by the student's advisory committee, which includes the student's research advisor and two other members of the graduate faculty. For those students who select additional course work in lieu of a thesis or research paper, the final exam covers the content from three 500-level MATH, STAT or OR courses chosen jointly by the student and advisor.

Review the graduation policy for more information.

Mathematics Professional Development Sequences

The Department of Mathematics and Statistics offers seven professional development sequences (PDS). Each PDS is described below in the program of study section. Each PDS is designed to give students a thorough grounding in one particular subject in mathematics, statistics or operations research.

Admission

Graduate students who are officially admitted to, and in good standing with, the Graduate School may enroll in a PDS in the Department of Mathematics and Statistics provided they have the approval of the Graduate Program Director. Students enrolled in a PDS need not be graduate students in the Department of Mathematics and Statistics and they be an unclassified graduate student. Students are expected to have completed all courses that are prerequisites to the required courses in the PDS.

Program of Study

PDS programs of study are as follows:

Quality and Reliability

STAT 484 Reliability Engineering
STAT 488 Design and Control of Quality Systems
STAT 584 Reliability Theory
STAT 588 Advanced Quality Control

Design and Analysis of Experiments

STAT 480a,b Mathematical Statistics
STAT 481 Design and Analysis of Experiments

STAT 581 Advanced Experimental Design

Applied Statistics

STAT 478 Time Series Analysis
STAT 481 Design and Analysis of Experiments
STAT 482 Regression Analysis
STAT 483 Sample Surveys

Mathematical Programming

OR 440 Deterministic Models
OR 587a,b Mathematical Programming

Simulation

OR 442 Simulation
OR 585 Simulation Theory
OR 586 Simulation Modeling and Languages

Numerical Analysis

MATH 465 Numerical Analysis
MATH 466 Numerical Linear Algebra with Applications
MATH 565 Advanced Numerical Analysis

Differential Equations

MATH 464 Partial Differential Equations
MATH 465 Numerical Analysis
MATH 552 Theory of Ordinary Differential Equations
MATH 567 Topics in Applied Mathematical Analysis

Data Science and Statistical Modeling

STAT 478 Time Series Analysis
STAT 482 Regression Analysis
STAT 489 Applied Statistical Learning and Data Mining
STAT 589 Applied Multivariate Analysis
STAT 579 Discrete Multivariate Analysis

Computational and Applied Mathematics Specialization

Required Courses (6 hours): MATH 462 and MATH 464

Electives (18 to 21 hours): Electives may be selected from 400- and 500-level MATH, STAT, or OR courses. MATH 550 and 567, STAT 575, and OR 587ab are recommended.

Thesis or research paper (3 to 6 hours): MATH 599 (Thesis), or MATH 595 (Special Project). Students in the computational and applied mathematics specialization may substitute additional 500-level course work for the thesis or research paper to complete the 30-hour requirement for the degree. Students who select this course option must pass a comprehensive exam covering three 500-level MATH, STAT, or OR courses chosen jointly by the student and advisor.

The 400-level required courses are waived for students who have completed these courses as undergraduates, although graduate credit cannot be given for courses taken as an undergraduate.

Postsecondary Mathematics Education Specialization

Students must complete the requirements in Groups A, B, C, D, and E.

Group A: Three courses selected from the following:

MATH 420, 421, 423, 435, 437, 450, 451, 462, 464, OR 440, OR 441, STAT 478, 480A, 480B, 481, 482.

Group B: Two courses selected from the following:

MATH 531 - Algebraic Content, Pedagogy and Connections
MATH 532 - Geometric Content, Pedagogy and Connections
MATH 533 - Discrete Mathematics Content, Pedagogy and Connections
MATH 534 –Calculus Content, Pedagogy and Connections
STAT 535 –Statistics Content, Pedagogy and Connections

Group C: Two MATH/STAT/OR electives selected from 500-level MATH, STAT, or OR courses, excluding courses from Group B above.

Group D: Two courses selected from the following:

ADED 522 - Program Planning in Adult and Continuing Education
ADED 523 - Curriculum and Instruction in Adult and

Continuing Education
EPFR 501 - Research Methods
EPFR 515 - Advanced Educational Psychology
CI 510 - Analysis of Instruction (choose either CI 510F or CI 510J)
CI 563 - Curriculum Models (choose either CI 563 F, J, K, or L)
IT 540 - Distance Education

GROUP E: MATH, STAT, or OR 599 (Thesis), or MATH, STAT or OR 595 (Special Project), or option of substituting additional 500-level course work in MATH, STAT or OR, excluding courses from Group B. Students who select this option must pass a final exam covering two 500-level MATH, STAT, or OR courses from Group C and the additional course from Group E.

Pure Mathematics Specialization

Required courses (6 hours): MATH 421, and MATH 450 or MATH 451

Electives (18 to 21 hours): Electives may be selected from 400- or 500-level MATH, STAT, or OR courses.

Thesis or research paper (3 to 6 hours): MATH 599 (Thesis) or MATH 595 (Special Project). Students in the pure mathematics specialization may substitute additional 500-level course work for the thesis or research paper to complete the 30-hour requirement for the degree. Students who select this course option must pass a comprehensive exam covering three 500-level MATH, STAT, or OR courses chosen jointly by the student and advisor.

Statistics and Operations Research Specialization

Required courses (18 hours): Stat 480a, 480b, one of OR 440, OR 587a, Math 423 and one of: OR 441, OR 442, OR 585. One of the following two semester sequences is required: Stat 581, Stat 582; Stat 584, Stat 588; Stat 579, Stat 589; OR 587a, OR 587b; OR 585, OR 586. A student taking the OR 587a and OR 587b sequence will be required to take either OR 440 or Math 423. A student taking the OR 585/OR 586 sequence will be required to take either OR 441 or OR 442.
Electives (6 to 9 hours): Electives may be selected from 400- or 500-level mathematics, statistics, or operations research courses.

Thesis or Research Paper (3 to 6 hours): STAT or OR 599 (Thesis), or STAT or OR 595 (Special Project). Students in the Statistics and Operations Research specialization may substitute additional course work for the thesis or research paper to complete the 30-hour requirement for the degree. Students who select this course option must pass a comprehensive exam covering three 500-level MATH, STAT, or OR courses chosen jointly by the student and advisor.

MBA DNP

Admission Requirements

- Graduate School applications and $40 fee *(A separate application must be submitted for both the DNP and MBA program, indicating on the second application that the desire is to "add a program." If applications for both programs are submitted for the same term, only one $40 application fee is required.)*
- Submission of all postsecondary academic transcripts
- A master's degree in nursing or a bachelor's degree in nursing and a master's degree appropriate to their advance nursing practice role
- Minimum cumulative master's GPA of 3.0 on a 4.0 scale
- Completion of all MBA application requirements
- Submission of personal statement about a potential DNP project idea that is patient or practice focused and their goals for the DNP program
- Submission of three(3) reference forms
  - One must be from your current manager
  - Two preferably from nurses holding a graduate degree in nursing or a related field

Admission and Enrollment Requirements

- The applicant must hold a Master of Science in nursing as an advanced practice nurse or have a master's degree in an advanced nursing practice role with completed practicum hours. Nurses with degrees from nurse educator programs may be considered for admission if their current primary nursing role is healthcare system based (i.e., patient educator for specialty units, clinical educator for hospital, administrator of healthcare systems based education, etc.).
- Minimum cumulative master's GPA of 3.0 on a 4.0 scale
- Current unencumbered RN licensure in the state where you plan to complete any practicum experience.
  - Please note: If you life anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.
- Successful completion of an applicant interview (invitation only).
- Successful completion of a drug screen and criminal background check, prior to enrollment in the program.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service.

Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu to check the status of their application.

Application Deadline

The priority application deadline is February 1 for summer applicants, June 1 for fall applicants and November 1 for spring applicants. Applications may still be accepted after these deadlines if space allows.

Required Credit Hours/Tuition and Fees

- 54
- Visit the Paying for College website for detailed tuition information

Curriculum

The post-master's DNP is 30 credits, with eight of those credits focused on the final project. The MBA is 36 credits, and four of the nursing DNP courses are considered electives within the MBA program, for a combined total of 54 credits for the concurrent DNP/MBA. While the School of Business courses are offered in online, seven-week sessions, the School of Nursing courses are offered online over the whole semester. This allows students who are full time to primarily only have two courses progressing simultaneously within a semester.

Year 1 (Summer Semester)

(3) ACCT 524 Accounting for MBA's
(3) NURS 617 Applications of Epidemiology
6 - Total Credits

Year 1 (Fall Semester)

(3) MBA 521 Quantitative Analysis (first half of semester)
(3) MBA 522 Decision Making in Organizations (second half of semester)
(3) NURS 600 Theory Guided Practice
9- Total Credits

Year 1 (Spring Semester)

(3) ECON 528 (second half of semester)
(3) Elective
6- Total Credits

Year 2 (Summer Semester)

(3) CMIS 526 Information Systems & Technology
(3) NURS 604 Evaluating Evidence for Improving Practice
6 - Total Credits

Year 2 (Fall Semester)

(3) MKTG 525 Marketing Analysis & Applications (second half of semester)
(3) NURS 620 Healthcare Informatics
(1) NURS 695a Introduction to DNP Projects
7 - Total Credits

Year 2 (Spring Semester)

(3) FIN 527 Corporate Finance (first half of semester)
(3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
(2) NURS 695p DNP Project (completion of Phase A and B)
8 - Total Credits

Year 3 (Summer Semester)

(2) NURS 695p DNP Project (completion of Phase C)
2 - Total Credits

Year 3 (Fall Semester)

(3) MBA 534 Strategic Management (first half of semester)
(3) NURS 601 Ethics Studies for Advanced Nursing Practice
6 - Total Credits

Year 3 (Spring Semester)

(4) NURS 695p DNP Project (completion of Phase D and E)
4 - Total Credits

Total Hours 54

Immersion Experiences

Students who are admitted to the program attend a three-day immersion the first year, and a two-day immersion the second year. Attendance on campus is mandatory for these two immersions. Additionally, students may come to campus for the oral presentation of their final DNP Practice Project.

School of Nursing Retention Policy

Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of course work, defined as obtaining a course grade of A or B. Students who obtain a course grade of D or F in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course. Students may only earn one course grade of C and stay enrolled in graduate nursing programs. If a second course grade of C is earned, students are automatically removed from the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied toward this exclusion policy.

Degrees Available at SIUE

- Master of Business Administration (MBA) and Post-Master's Doctor of Nursing Practice (DNP)

Graduation Requirements

In addition to completing the course work, students must also satisfy a comprehensive examination

requirement by earning a grade of B or above in MBA 534. Students who earn a grade below B will be given a second opportunity to complete the course in a satisfactory manner. Performance of individuals who fail to earn a B or above in the second attempt will be reviewed by two additional members of the School of Business Curriculum Committee who may recommend that the student be dropped from the program or, in rare instances, be permitted a third attempt to earn a grade of B or above under another instructor.

Students must successfully complete all course work and practicum hours; develop an electronic portfolio; develop, implement, evaluate, and prepare a written doctoral practice project; and complete an oral presentation of the project. Because the American Association of Colleges of Nursing has mandated that DNP graduates complete at least 1,000 hours of practice post-baccalaureate as part of a supervised academic program, master's degree transcripts will be evaluated individually, with a maximum of 500 clinical hours from advanced practice specialization programs counting toward the total 1,000 required hours.

Mechanical Engineering

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Undergraduate GPA of at least 2.75 on a 4.0 scale in engineering, mathematics and physical science courses.
- A baccalaureate degree in mechanical engineering from an ABET-accredited program. Applicants who completed a non-ABET-accredited program or whose undergraduate studies were in a country other than the United States must have a baccalaureate degree in mechanical engineering which is comparable to the United States' bachelor's degree and are encouraged to take the Graduate Record Examination (GRE) (verbal, quantitative, and analytical portions) to support their applications.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn graduate-level credit for courses taken their senior year.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants from selected areas of mathematical and physical sciences, or those whose undergraduate engineering degrees are not in mechanical engineering, will be considered for admission on a case-by-case basis. Such applicants may be required to take remedial courses in the deficient area before taking graduate-level ME courses.

In exceptional cases, the graduate admission committee may consider applicants who meet the Graduate School admission standards, but do not meet certain specified program admission requirements. The committee may consider other evidence that indicates high promise of the applicant's success in the program. Such supportive evidence may include high scores on GRE, professional registration, extensive professional experience, professional publications, or satisfactory graduate-level work.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

The department offers both thesis and non-thesis options. Both options require the completion of 30 graduate credit hours. To take full advantage of the academic experience available, however, students are encouraged to take the thesis option.

The thesis option requires a minimum of 24 credit hours of coursework plus six credit hours of ME 599-Thesis.

Thesis students will be guided in thesis work by a thesis advisor with the assistance and concurrence of an advisory committee. The thesis topic will be selected from an area in mechanical engineering and approved by the student's advisor. When possible, part-time students will be encouraged to select topics complementing their professional responsibilities. Writing a thesis involves an intensive research effort and generally requires several semesters of work to complete. Students are encouraged to find a thesis advisor and begin their thesis work well in advance of registering for thesis credits.

The non-thesis option requires a minimum of 27 credit hours of coursework plus three credit hours of ME 598-Research Project.

Non-thesis students are required to work on a research project, the topic of which is mutually agreed upon by the student and a faculty advisor,

and write a report describing their project and present their findings to an examining committee. A research project is less involved than a thesis.

Of the 30 credit hours required, at least 21 credit hours must be in mechanical engineering courses, of which at least 15 credit hours must be at the 500-level (which may include six credit hours of ME 599-Thesis for the thesis option and three credit hours of ME598-Research Project for the non-thesis option). Six credit hours must be in mathematics and must be selected from a list of courses already approved by the mechanical engineering faculty. The program allows students to take one graduate-level elective course from outside the program. The elective course may be taken from any of the courses listed in the current Graduate Catalog, provided the student meets prerequisites.

All students are required to complete either ME 530-Advanced Dynamics or ME 575-Advanced Fluid Mechanics.

The mechanical engineering discipline has a close interface with civil engineering in the areas of stress analysis and elasticity, and with electrical engineering in the areas of system dynamics and control theory. Whenever possible, courses in these areas will be cross-listed to enrich the variety of course offerings for students in all programs.

The specific program of study is selected by the student and approved by the student's advisor.

Degrees Available at SIUE

- Master of Science in Mechanical Engineering

Combined Degrees

- Accelerated Combined BS and MS in Mechanical Engineering
- Accelerated Combined BS in Mechatronics and Robotics Engineering and MS in Mechanical Engineering
- Early Entry MS in Mechanical Engineering

Early Entry MS in Mechanical Engineering

The Department of Mechanical Engineering offers undergraduate students the opportunity to begin coursework toward the Master of Science during the senior year of their Bachelor of Science program. Students with senior-level status (at least 90 semester hours) and a cumulative GPA of 3.0 on a 4.0 scale may be admitted to the MS program that allows them to earn graduate-level credit (400- and 500-level) during their senior year.

An application for degree-seeking status as a graduate student must be approved by graduate admissions and the director of the mechanical engineering graduate program. A program outline must also be submitted for approval by graduate records and the director of the mechanical engineering graduate program prior to enrollment in any courses to be included as part of the master's program. Official admission to the graduate program and to status as a classified graduate student is made only after the award of the baccalaureate degree. In no case will a graduate degree be conferred before all requirements for both degrees have been completed.

Please note: Only current SIUE students are eligible for this program.

Graduation Requirements

Students must have completed all coursework with a minimum grade of "C" and have a minimum program GPA of 3.0. Both thesis and non-thesis students are required to pass a final examination.

The final exam will include an oral presentation and defense of the thesis or project. Final examination will be conducted by an examination committee primarily on the content of the thesis or project, but may also include the subject matter of relevant courses. The examination committee will consist of a minimum of three faculty members, with at least two ME faculty members. Prior to the final oral examination, students are required to submit copies of their thesis or project to all committee members, sufficiently in advance of the exam date to allow the committee to review the material. The student must schedule the exam at least two weeks prior to the exam date. The student is responsible for informing the committee and the Graduate Program Director of the date, time, and place of the exam.

Review the graduation policy for more information.

Media Studies

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Undergraduate GPA of 3.0 (on a 4.0 scale)
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Three letters of recommendation
- Academic History Information
- Statement of purpose
- Accelerated Combined Degrees: Current SIUE undergraduate students may apply for the accelerated option to earn graduate-level credit for courses taken their senior year.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Students with undergraduate majors in fields other than mass communications will be considered for admission, provided that their statement of purpose, as contained in the Department of Mass Communications Graduate Program Application, shows the relationship between the undergraduate major and the MS program in media studies. Students lacking sufficient undergraduate preparation (as determined by the Director of Graduate Studies), will be required to take up to three prerequisite courses (nine hours) that will not count toward the graduate degree. With permission from the Director of Graduate Studies, these courses may be taken concurrently with those toward the Master of Science degree.

Following admission, each student should make an appointment with the graduate program director for initial advisement.

Required Credit Hours/Tuition and Fees

- 30
- Visit the Paying for College website for detailed tuition information

Curriculum

Thirty semester hours of graduate credit are required for the degree. No credit will be accepted for a C or lower in the master's program; students may retake courses one time to improve a grade.

Required courses (9 hours): MC 500, 501, 502

Electives (15 hours): selected in consultation with the student's graduate advisor. No more than six hours may be taken outside the Department of Mass Communications.

Thesis or Project (6 hours): MC 599 (Thesis) or MC 598 (Final Project) or two additional graduate courses/electives for students opting to take a comprehensive exam as an exit requirement.

Degrees Available at SIUE

- Master of Science in Media Studies
- Master of Science in Integrative Studies - Marketing Communication
- Master of Science in Integrative Studies - Media Management

Combined Degree

- Accelerated Combined BA or BS in Mass Communications and MS in Media Studies

Post-Baccalaureate Certificate

- Digital Media Literacy

Graduation Requirements

Students may choose one of three options as part of their exit requirement:

- Thesis
- Project
- Comprehensive exam

After the thesis, project or exam is submitted and evaluated by the student's advisory committee, the student must successfully complete an oral examination conducted by the committee. The oral examination will focus primarily on the defense of the thesis, project or exam and may also cover the student's program of study.

Review the graduation policy for more information.

Music

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Baccalaureate degree or its equivalent in music and at least a 2.8 (A=4.0) overall GPA in undergraduate work.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- An applicant in music education must have state certification in music
- An applicant in performance must pass an audition.
- The audition for admission to the specialization in music performance can be accomplished in one of the following ways:
  - A personal audition before a graduate auditioning committee
  - A recording of a full recital that may serve as a basis for provisional acceptance to be followed by a personal audition
  - The Senior Recital at SIUE may serve as the audition, provided the student makes application through the graduate program director in music at least three weeks prior to the recital. A student who fails to matriculate in the master's degree program within one year following the senior recital will be required to re-audition.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Entering graduate students concentrating in voice or accompanying should have completed one year each of two of the following languages: Italian, French and German. Deficiencies can be removed by enrolling in undergraduate foreign language classes and diction class. Language requirements do not apply to students pursuing an instrumental concentration.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 32
- Visit the Paying for College website for detailed tuition information

Curriculum

The Master of Music degree program requires a minimum of 32 semester hours for completion.

Students will choose a specialization in music education, performance, choral conducting, instrumental conducting, or jazz.

Degrees Available at SIUE

- Master of Music
  - Music Education Specialization
  - Performance Specialization
  - Choral Conducting Specialization
  - Instrumental Conducting Specialization
  - Jazz Specialization

Post-Baccalaureate Certificates

- Piano Pedagogy
- Vocal Pedagogy

Graduation Requirements

A comprehensive final examination is required of all students. The examination is based on the student's program of study, and includes theory, literature and area of emphasis. The examination will be conducted and evaluated by the advisory committee. Students who fail the examination may repeat it upon recommendation of the committee.

Review the graduation policy for more information.

Choral Conducting

Required courses in music (4 hours): MUS 501, 502

In addition to the required courses in music, the program of study includes eight hours in choral conducting and two to six hours in music history and literature. Students must take MUS 539 Advanced Diction (two hours), MUS 519A Vocal Pedagogy (two hours) and four credit hours of MUS 540Q Applied Voice.

Electives: Elective hours as needed to complete the minimum program requirement of 32 hours. Electives, with approval of the graduate advisor, may include courses outside the field of music to a total of six hours.

Graduate Recital (4 hours): MUS 590

Career Outlook

Competition in the music industry is keen. The U.S. Bureau of Labor Statistics predicts job prospects to grow by eight percent over the next eight years. Talented individuals who are skilled in multiple instruments and musical styles will have the best job prospects. The growth of the Internet and other new forms of media may provide independent musicians and singers with alternative methods for distributing their music and making a profit. The BLS predicts graduates who wish to teach music will find a competitive but healthy job market.

SIUE's Career Development Center maintains strong connections with regional and national education associations to help students explore employment options upon graduation.

Instrumental Conducting

Required courses in music (4 hours): MUS 501, 502

In addition to the required courses in music, the program of study includes eight hours in the principal area of performance and two to six hours in music history and literature.

Electives: Up to four hours in the principal applied area and, with approval of the graduate advisor, may include courses outside the field of music to a total of six hours. Additional elective hours as needed to complete the minimum program requirement of 32 hours.

Graduate Recital (4 hours): MUS 590

Career Outlook

Competition in the music industry is keen. The U.S. Bureau of Labor Statistics predicts job prospects to grow by eight percent over the next eight years. Talented individuals who are skilled in multiple instruments and musical styles will have the best job prospects. The growth of the Internet and other new forms of media may provide independent musicians and singers with alternative methods for distributing their music and making a profit. The BLS predicts graduates who wish to teach music will find a competitive but healthy job market.

SIUE's Career Development Center maintains strong connections with regional and national education associations to help students explore employment options upon graduation.

Jazz

Required courses in music (4 hours): MUS 501, 502

In addition to the required courses in music, the program of study includes eight hours in the principal area of performance and two to six hours in music history and literature. Students must take at least four hours of MUS 566 (Instrumental Ensemble) and MUS 509 Advanced Jazz Arranging/Composition (two hours).

Electives: Elective hours as needed to complete the minimum program requirement of 32 hours. Electives, with approval of the graduate advisor, may include courses outside the field of music to a total of six hours.

Graduate Recital (4 hours): MUS 590

Career Outlook

Competition in the music industry is keen. The U.S.

Bureau of Labor Statistics predicts job prospects to grow by eight percent over the next eight years. Talented individuals who are skilled in multiple instruments and musical styles will have the best job prospects. The growth of the Internet and other new forms of media may provide independent musicians and singers with alternative methods for distributing their music and making a profit. The BLS predicts graduates who wish to teach music will find a competitive but healthy job market.

SIUE's Career Development Center maintains strong connections with regional and national education associations to help students explore employment options upon graduation.

Music Education

Required courses in music (4 hours): MUS 501, 502

Required courses in music education (12 hours): MUS 520, 525, 530, 535, and 560
Instrumentalists must also complete MUS 415
Vocalists must complete MUS 519a

Electives in Music Education and Pedagogy (6 hours): Students may substitute up to four semester hours of graduate courses in education if, prior to electing these courses, they submit a written request to the Director of Music Education and obtain approval.

General Music Electives (6 hours): At least one elective in music theory, music history, and ensemble/applied instruction. Students completing the recital with supporting paper must complete a minimum of four semester hours of private applied instruction (MUS 540 or 541) in addition to MUS 591.

Thesis or Graduate Recital with Supporting Paper (4 hours): MUS 599 or MUS 591

These scholarly projects come at the end of graduate study and demonstrate the graduate student's ability to produce an original research document of merit. Most degree candidates complete a thesis, but students desiring to perform a recital and write a supporting paper instead of the thesis may do so with approval from the Director of Music Education, the applied instructor, and the audition committee.

Like the thesis, the supporting paper must be relevant to music education. This paper may focus on issues such as pedagogical implications of the instrument's construction and capabilities, principally as these relate to the recital repertoire; the history and structure of the recital repertoire; particularly as these relate to performance and instruction; and other factors pertaining to teaching, learning, and performing on the instrument.

Career Outlook

A master's degree in music education is uniquely suited for careers in post secondary education. According to the U.S. Bureau of Labor Statistics (BLS), demand for professors is high in educational and musical disciplines where career opportunities can be more lucrative than teaching the master's degree program itself. In addition to teaching, music education graduates find work as music historians, music directors, performers and composers.

SIUE's Career Development Center maintains strong connections with regional and national education associations to help students explore employment options upon graduation.

Performance

Required courses in music (4 hours): MUS 501, 502

In addition to the required courses in music, the program of study includes eight hours in the principal area of performance and two to six hours in music history and literature. Students pursuing a piano performance concentration must take at least four hours of MUS 565 (Advanced Piano Ensemble-Accompanying and Chamber Music). Students pursuing voice and piano majors following the chamber music/accompanying option must take MUS 539 Advanced Diction (two hours).

Electives: Elective hours as needed to complete the minimum program requirement of 32 hours. With approval of the graduate advisor, electives may include courses outside the field of music to a total of six hours.

Graduate Recital (4 hours): MUS 590

Accompanying majors will perform three recitals of ensemble music, including both vocal and instrumental repertoire.

Career Outlook

Competition in the music industry is keen. The U.S. Bureau of Labor Statistics predicts job prospects to grow by eight percent over the next eight years. Talented individuals who are skilled in multiple instruments and musical styles will have the best job prospects. The growth of the Internet and other new forms of media may provide independent musicians and singers with alternative methods for distributing their music and making a profit. The BLS predicts graduates who wish to teach music will find a competitive but healthy job market.

SIUE's Career Development Center maintains strong connections with regional and national education associations to help students explore employment options upon graduation.

Nurse Educator

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- A degree in nursing from a CCNE or ACEN accredited program. Graduates from non-CCNE or ACEN accredited programs may be evaluated on an individual basis. Please contact the School of Nursing for more information.
- Minimum undergraduate (graduate for post-master's applicants) nursing GPA or 3.0 on a 4.0 scale
- Submission of a personal statement
- Submission of three professional reference forms
  - One must be from your current manager
  - Two preferably from nurses holding a graduate degree in nursing or a related field

Post-Licensure Admission Decisions are Based on the Following:

- Professional experience, goals statement, and three reference forms.
- Bachelor of Science in nursing from a CCNE or ACEN accredited program. (Graduates from non-ACEN or CCNE accredited programs will be considered under certain circumstances. Please contact the School of Nursing for more information.)
- Current unencumbered RN licensure in the state where you plan to complete your practicum experience.
  - Please note that if you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.

- Minimum undergraduate (graduate for post-master's applicants) nursing GPA of 3.0 on a 4.0 scale.
- Preferred minimum undergraduate (graduate for post-master's applicants) science GPA of 3.0 on a 4.0 scale.
- Preferred minimum overall undergraduate (graduate for post-master's applicants) GPA of 3.0 on a 4.0 scale.
- Successful completion of an undergraduate statistics course with a grade of C or better.
- A minimum of one year of full-time professional nursing practice experience or its part-time equivalent (1,872 hours) prior to enrollment in the first specialization clinical course.
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, prior to enrollment in the program.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu with additional questions or to check the status of their application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service.

Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Accelerated Combined Degrees

Current SIUE nursing students (traditional undergraduate, post-baccalaureate accelerated BS, and accelerated RN to BS) may apply for the accelerated option to earn graduate-level credit for courses taken during their undergraduate program.

Application Deadline

The priority application deadline is February 1 for summer applicants, June 1 for fall applicants, and November 1 for spring applicants. Applications may still be accepted after these deadlines if space allows.

Required Credit Hours/Tuition and Fees

- 33
- Visit the Paying for College website for detailed tuition information

Program of Study

The program for the Master of Science in nursing

consists of 33 semester hours for nurse educator.

Year 1 (Fall Semester)

(3) NURS 600 Theory Guided Practice
(3) PAPA 561 Biostats/Epidemiology
6 - Total Credits

Year 1 (Spring Semester)

(3) NURS 604 Evaluating Evidence for Improving Practice & Healthcare Outcomes
(3) NURS 606 Leadership and Health Policy for Advanced Nursing Practice
6 - Total Credits

Year 1 (Summer Semester)

(3) NURS 580 Teaching and Learning Theory, Development and Socialization in Nursing Education

Year 2 (Fall Semester)

(3) NURS 581 Curriculum Theory, Design & Program Evaluation in Nursing Education
(3) NURS 516 Advanced Pharmacology
6 - Total Credits

Year 2 (Spring Semester)

(3) NURS 518 Advanced Pathophysiology for Nurse Educators
(3) NURS 582 Instructional Design, Assessment & Evaluation for Nursing Education (2 hours didactic, 1 hour practicum)
6 - Total Credits

Year 2 (Summer Semester)

(3) NURS 586 Advanced Specialty Nursing Practice for Nurse Educators: Seminar (2 hours didactic, 1 hour practicum)

Year 3 (Fall Semester)

(3) NURS 585 Nurse Educator Role Synthesis (2 hours didactic, 1 hour practicum) Completion of Terminal Project

Total Hours 33

Retention

Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of "A" or "B." The following retention policy applies specifically to all graduate nursing courses with the NURS prefix for degrees conferred by the School of Nursing:

1. Students who obtain a course grade of "D" or "F" in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course.
2. Students may only earn one course grade of "C" and stay enrolled in graduate nursing programs. If a second course grade of "C" is earned, students will no longer be allowed to progress in the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of "C" does not eliminate the original course grade of "C" from being applied toward this exclusion policy.
3. Per the SIUE Graduate School policy, all students must have a GPA of 3.0 or higher to graduate.

For more information on the SIUE Graduate School Retention Policies, please refer to the Graduate Handbook.

Degrees Available at SIUE

- Master of Science, Nurse Educator (NE)

Certificate

- Nurse Educator Post-Master's Certificate

Undergraduate to Graduate Nursing Options

Qualified SIUE nursing students can apply to enroll in graduate-level courses taken during the following undergraduate programs:

- Nursing (Traditional)
- Accelerated RN-BS
- Accelerated BS in Nursing as Second Degree

Graduation Requirements

Master's Terminal Project (Master's and

Post-Master's Students)

Master's students in the School of Nursing demonstrate synthesis of their coursework, practicum experiences, and attainment of the master's student outcomes by creating a rigorous, scholarly, evidence-based project that incorporates a broad review of the literature from nursing and related fields, and present the project orally to students and faculty, during the final synthesis course for the program.

Review the graduation policy for more information.

Nutrition Dietetics

Admission Requirements

Southern Illinois University Edwardsville participates in the spring application process through the **Dietetic Internship Centralized Application System (DICAS)**. Applicants must submit their application through DICAS by February 1st to be considered for admittance for the following Fall.

- Applicants must have an undergraduate GPA of at least 3.0 (A=4.0) to be considered for admittance into the program
- Successful completion of a bachelor's prior to enrollment
- Completion or planned completion of prerequisite coursework prior to the start of the program
- Transcripts from all schools Transcripts can be ordered directly through DICAS or, if your school does not participate in the National Student Clearing house or Parchment e-transcript services, you can order and have paper transcripts sent. Applications will not be considered without DICAS verification of transcripts. It is the student's responsibility to refer to the DICAS procedure for proper and timely submission of transcripts and academic updates.
- Resume
- Two letters of recommendation
- Personal statement about your career goals and motivation for becoming a registered dietitian. In fewer than 800 words, address the following questions:
  - Why do you want to enter the dietetics profession?
  - What experiences have helped to prepare you for your career in dietetics?
  - What are your short-term and long-term goals?
  - What are your strengths and weaknesses or areas in need of improvement?
  - What other information do you consider important for the selection decision?
- An interview (in-person or via video call) by the Selection Committee may be requested
- For international students, a minimum total internet-based TOEFL score of 100 is required to be considered for admission.
  - International applicants *whose native language is not English* must demonstrate English language proficiency as outlined by International Student Admissions. TOEFL scores should be entered in the DICAS Academic History section of the application.

Program application materials should be uploaded during the application process. For students accepted into the program, official transcripts must also be sent directly from the school attended to the Graduate Admissions office at graduateadmissions@siue.edu by the start of the fall term.

Review the SIUE Admissions Policy for more information.

Application Deadline

Application deadline is February 1st. Applications will be reviewed following the deadline with admission decisions announced by March 1st for admission in the fall semester. Late applications will be processed on a space available basis.

How to Apply

All transcripts, letters of recommendation and supplemental materials are to be submitted through the Dietetics Inclusive Centralized Application Service (DICAS). Students are encouraged to review the DICAS Application Instructions before submitting their application.

Prerequisite Coursework Requirements

Students are eligible to apply for the nutrition and dietetics program if they have met or have plans in place to complete the following prerequisites prior to the start of the program:

- English Composition I and II
- Anatomy and Physiology*: Two semesters of anatomy and physiology with lab
- Microbiology or Bacteriology*: One course with laboratory
- General Chemistry*: One course with laboratory
- Nutritional Biochemistry or Biochemistry*
- Mathematics: One course in college algebra or higher

- Psychology: One course in introductory psychology or human behavior
- Two Foods Courses*:
  - Food Service Management or equivalent
  - A general food studies course with lab
- Nutrition*: Human nutrition course

*Science and nutrition courses should be taken within five years of starting the program and students must have earned a grade of C or better.

Application FAQs

Do I have to submit an application directly to the University?

No. All application materials should be submitted through the DICAS portal. Students admitted to the program and completing undergraduate degrees and prerequisites at schools other than SIUE will be required to submit an official transcript verifying course and degree completion to prior to the start of their first semester.

Do I have to wait for my fall grades to be posted to request a transcript to be sent?

No, but we do need fall grades in a timely manner, so go ahead and request your transcript! We recommend students make the request during the fall term and indicate to their Registrar's Office to hold the transcript and send only after fall grades have been posted. Then, your current institution will automatically send the transcript to DICAS once fall grades are posted and you don't have to worry about making this request in December or January. We also recommend you follow-up with your Registrar's Office to verify that the transcript was sent with fall grades posted.

Does SIUE require a writing sample or personal statement?

Yes. Instructions for the essay are listed both on our website and in the DICAS application portal.

Does the program only admit students once a year?

Yes. All students apply for a fall start.

How big is your program?

The average size for each cohort over the last three years is 10 students.

Does SIUE require the GRE?

No, SIUE does not require the GRE.

Is there any additional information you can provide to help me through this process?

Yes. The ACEND Student Page has valuable information for preparing students to applying to dietetics training programs and using the DICAS portal.

Graduate Assistantships

SIUE offers graduate assistantship positions on a competitive basis. Students are encouraged to explore available positions after receiving notice of admission into their graduate program, and to follow the application instructions listed directly in the job posting.

Estimated Costs

Tuition costs are approximately $340 per credit hour. Student fees are approximately $310 per credit hour. Textbook costs are included in student fees. In addition, students in the nutrition and dietetics program can expect to incur the following expenses:

- Lab coat and/or uniforms for supervised practice experiences ($30)
- Liability insurance ($15)
- Background checks (about $90 per check)
- Drug screening (with compliance tracker) (about $60)
- Immunizations as deemed essential by practicum sites ($5-15 each or $30-90 for a series)
- Practicum and supervised practice courses include a course-specific fee ($30 per class)
- Transportation costs for field trips/field based experiences (varies by location)
- Students are required to join the Academy of

Nutrition and Dietetics as a student member. The student fee is $58 per year.
- Housing expenses vary. Off-campus shared housing costs $400-500/month. Most on-campus housing options range from $500-1,000/month depending on location and shared or private bedroom.

Additional information regarding program costs can be found in the Program Guide and Policies and Procedures Manual. Please check with the Office of Financial Aid for more information about scholarships and financial aid.

Required Credit Hours/Tuition and Fees

- 60
- Visit the Paying for College website for detailed tuition information

Curriculum

Year 1 (Fall Semester)

(3) NUTR 501 Intro Research & Evaluation Methods
(1) NUTR 505 Intro to Professional Practice
(3) NUTR 507 Intro to Nutrition Care
(3) NUTR 510 Advanced Food Service Management
(1) NUTR 510P Advanced Food Service Management Supervised Practice
(3) KIN 512 Advanced Exercise Physiology
14 - Total Credits

Year 1 (Spring Semester)

(1) NUTR 507P Intro to Nutrition Care Supervised Practice
(3) NUTR 511 Medical Nutrition Therapy 1
(3) NUTR 513 Advanced Sport and Exercise Nutrition
(3) NUTR 521 Community Nutrition
(2) NUTR 521P Community Nutrition 1 Supervised Practice
12 - Total Credits

Year 1 (Summer)

(3) NUTR 511P Medical Nutrition Therapy 1 Supervised Practice
(1) NUTR 522P Community Nutrition 2 Supervised Practice
(3) NUTR 512 Medical Nutrition Therapy 2
(3) NUTR 512P Medical Nutrition Therapy 2 Supervised Practice
10 - Total Credits

Year 2 (Fall Semester)

(8) NUTR 531P Advanced Nutrition Practicum 1
(2) NUTR 508 Nutrition Entrepreneurship
(3) Specialization elective
13 - Total Credits

Year 2 (Spring Semester)

(8) NUTR 532P Advanced Nutrition Practicum 2
(3) NUTR 535 Nutrition Seminar
11 - Total Credits

Nutrition and Dietetics (60 hours)

Core Courses (51 hours)

NUTR 501 Introductory Research & Evaluation Methods (3)
NUTR 505 Introduction to Professional Practice (1)
NUTR 507 Introduction to Nutrition Care (3)
NUTR 507P Introduction to Nutrition Care Supervised Practice (1)
NUTR 508 Nutrition Entrepreneurship (2)
NUTR 510 Advanced Food Service Management (3)
NUTR 510P Advanced Food Service Management Supervised Practice (1)
NUTR 511 Medical Nutrition Therapy 1 (3)
NUTR 511P Medical Nutrition Therapy 1 Supervised Practice (3)
NUTR 512 Medical Nutrition Therapy 2 (3)
NUTR 512P Medical Nutrition Therapy 2 Supervised Practice (3)
NUTR 521 Community Nutrition (3)
NUTR 521P Community Nutrition 1 Supervised Practice (2)
NUTR 522P Community Nutrition 2 Supervised Practice (1)
NUTR 531P Advanced Nutrition Practicum 1 (8)
NUTR 532P Advanced Nutrition Practicum 2 (8)
NUTR 535 Nutrition Seminar (3)

Specialization Courses (9 hours)

KIN 512 Advanced Exercise Physiology (3)
NUTR 513 Advanced Sport and Exercise Nutrition (3)

Choose one elective from:
KIN 513 Clinical Exercise Physiology (3)
KIN 516 Advanced Cardiovascular and Respiratory Physiology (3)
KIN 517 Pathophysiology and Treatments of Obesity (3)
KIN 518 Exercise Endocrinology (3)

No thesis option

Schedule and Calendar

The University academic calendar can be found online. The MS coordinated program follows the University academic calendar. Students should follow the MS coordinated program curriculum plan for guidance on program planning.

Retention

To remain in good standing in the MS program, students must:

- maintain a GPA of 3.0 or higher
- achieve a grade of B or better in all major courses.

Students who fail to achieve retention requirements will be able to repeat courses at the discretion of the program director, which will alter their timeline for completing their degree.

Degrees Available

- Master of Science in Nutrition and Dietetics

Concentration

- Sports Nutrition

Graduation Requirements

Students must complete all specific program and University requirements which include:

- A minimum of 60 graduate credit hours
- Achieve a grade of B or better in all major courses
- Successful completion of all supervised practice hours
- Must successfully pass a comprehensive exit examination in final semester
  - Students must demonstrate competence in nutrition and dietetics curriculum content via a comprehensive written exam. The comprehensive exam is intended to determine breadth and depth of understanding of the field and the application of knowledge to the profession.

Program Mission

The mission of the Master of Science in Nutrition and Dietetics Coordinated Program at SIUE is:

- To prepare competent entry-level registered dietitian nutritionists for careers in a variety of health care settings, including sports nutrition, clinical, community, research, business, and food service, who will work towards improving the health of society through optimal nutrition practices.
- To produce graduates with critical thinking and problem-solving skills, who stay abreast of knowledge to provide effective evidence-based nutrition care and theory-based nutrition education
- To embrace the ideals of the Academy of Nutrition and Dietetics IDEA Action Plan, particularly fostering a culture of respect, inclusion, equity, and access and implementing methods to address bias and discrimination.

Program Goals

Goal 1: The program will prepare graduates for successful completion of the Commission on Dietetic Registration credentialing exam for dietitians.

- Objective 1: At least 80% of students complete program requirements within three years (150% of the program length)
- Objective 2: At least 80% of program graduates CDR credentialing exam for dietitian nutritionists within 12 months of program completion
- Objective 3: The program's one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for dietitian nutritionists is at least 80%
- Objective 4: At least 80% of program graduates will indicate they strongly agree or agree they felt adequately prepared for the CDR credentialing exam for dietitian nutritionists

Goal 2: The program will prepare competent entry-

level practitioners to provide evidence-based nutrition services to individuals and groups in a variety of practice settings.

- Objective 1: Students will maintain a grade of B or better in all dietetics courses and a grade of C or better in all support (Exercise Physiology) courses
- Objective 2: Students will maintain a minimum GPA of 3.0
- Objective 3: Of graduates who seek employment, at least 80% are employed in nutrition and dietetics or related fields within 12 months of graduation
- Objective 4: Over a three-year period, 80% of preceptor respondents will rank the quality of students from SIUE as above average
- Objective 5: Over a three-year period, employers will agree or strongly agree that 80% of graduates are “well prepared” for entry-level employment.
- Objective 6: Over a three-year period, alumni respondents working in dietetics or related fields will collectively identify three different practice areas as primary job settings.
- Objective 7: At least 80% of graduates will report that they understand the IDEA Action Plan and recognize the program’s commitment and promotion of IDEA.

Information regarding program outcomes, including graduation rates and achievement on registration exam, is available upon request.

Sports Nutrition

The master's in nutrition and dietetics coordinated program has a concentration in sports nutrition. Our students gain a better understanding of physiology and the physiology of exercise to benefit all patients and clients. With additional recognition of the importance of nutrition at all levels of fitness and competition, sports dietitians will continue to be in demand. Graduates of SIUE’s program will be uniquely positioned to meet these needs.

After completion of the master's program with a concentration in sports nutrition, students will be able to:

- Demonstrate the ability to seek and utilize health-related resources to support their role as exercise and sports dietitians
- Translate and disseminate science-based sports nutrition recommendations that are understandable and ethical as a means to promote athletic performance, injury prevention and recovery, and overall health and wellness
- Develop and implement strategies/programs that seek to improve performance for both professional and amateur athletes

Our sports nutrition concentration competencies cover topics that relate to healthy adults and children who are active at all levels (novice to professional) as well as children and adults with special needs who are active at all levels. Specific knowledge in sports nutrition as well as exercise physiology will help them to be able to recognize specific needs of athletes, such as specific hydration needs, timing and composition of meals based on the particular point in training, and weight management for performance.

Students will complete three courses related to sports nutrition and exercise physiology including:

NUTR 513 Advanced Sport and Exercise Nutrition
KIN 512 Advanced Exercise Physiology

Choose one from:
KIN 513 Clinical Exercise Physiology
KIN 516 Advanced Cardiovascular and Respiratory Physiology
KIN 517 Pathophysiology and Treatments of Obesity
KIN 518 Exercise Endocrinology

In addition, students will complete 360 hours of supervised practice in the area of sports nutrition.

Pharmaceutical Sciences

Admission Requirements

1. Graduate School application and $40 fee
2. Submission of all postsecondary academic transcripts
3. Completion of a baccalaureate degree in pharmacy, chemistry, or the biological sciences. Prior academic work should include a year each of biology or biochemistry and organic chemistry.
4. GPA: At least 3.00 (A=4.00) for the final 60 semester hours of baccalaureate study.
5. Graduate Record Examination (GRE) general is required. The GRE advanced subject (chemistry, biochemistry or biology) test is optional.
6. International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
7. Three Letters of Recommendation are Required
8. Personal Statement is Required

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Application Deadline

The application deadline for the following fall admission is February 1st. Please note that applications will be reviewed following the deadline.

Curriculum

Students will consult with their advisor to tailor a program to their own research interests within the pharmaceutical sciences. The following are examples of a typical two-year program for each track.

Medicinal Chemistry Track

Required Credit Hours/Tuition and Fees

- 34
- Visit the Paying for College website for detailed tuition information

Year 1 (Fall Semester)

(3) PHPS 500 Cellular Targets For Drug Discovery
(4) PHPS 420 Principles of Pharmacology
(1) PHPS 510 Pharmaceutical Sciences Foundations and Research Methods
(1) PHPS 595 Graduate Seminar in the Pharmaceutical Sciences
9 Total Credits

Year 1 (Spring Semester)

(3) PHPS 501 Principles of Rational Drug Discovery
(3) PHPS 540 Pharmacokinetics
(2) PHPS 598 Pharmaceutical Sciences Research
8 Total Credits

Year 1 (Summer Semester)

(3) PHPS 598 Pharmaceutical Sciences Research
3 Total Credits

Year 2 (Fall Semester)

(2) PHPS Elective-1
(2) PHPS 598 Pharmaceutical Sciences Research
4 Total Credits

Year 2 (Spring Semester)

(3) PHPS Elective-2
(1) PHPS 595 Graduate Seminar in the Pharmaceutical Sciences
(3) PHPS 598 Pharmaceutical Sciences Research
7 Total Credits

Year 2 (Summer Semester)

(3) PHPS 599 Pharmaceutical Sciences Thesis Preparation
3 Total Credits

Total Hours: 34

Pharmacology Track

Required Credit Hours/Tuition and Fees

- 34
- Visit the Paying for College website for detailed information

Year 1 (Fall Semester)

(4) PHPS 420 Principles of Pharmacology
(3) PHPS 500 Cellular Targets For Drug Discovery
(1) PHPS 510 Pharmaceutical Sciences Foundations and Research Methods
(1) PHPS 595 Graduate Seminar in the Pharmaceutical Sciences
9 Total Credits

Year 1 (Spring Semester)

(3) PHPS 501 Principles of Rational Drug Discovery
(3) PHPS 540 Pharmacokinetics
(2) PHPS 598 Pharmaceutical Sciences Research
8 Total Credits

Year 1 (Summer Semester)

(3) PHPS 598 Pharmaceutical Sciences Research
3 Total Credits

Year 2 (Fall Semester)

(2) PHPS Elective-1
(2) PHPS 598 Pharmaceutical Sciences Research
4 Total Credits

Year 2 (Spring Semester)

(3) PHPS Elective-2
(1) PHPS 595 Graduate Seminar in the Pharmaceutical Sciences
(3) PHPS 598 Pharmaceutical Sciences Research
7 Total Credits

Year 2 (Summer Semester)

(3) PHPS 599 Pharmaceutical Sciences Thesis Preparation
3 Total Credits

Total Hours: 34

Pharmaceutics Track

Required Credit Hours/Tuition and Fees

- 33
- Visit the Paying for College website for detailed tuition information

Year 1 (Fall Semester)

(3) PHPS 500 Cellular Targets For Drug Discovery
(3) PHPS 541 Drug Delivery
(1) PHPS 510 Pharmaceutical Sciences Foundations and Research Methods
(1) PHPS 595 Graduate Seminar in the Pharmaceutical Sciences
8 Total Credits

Year 1 (Spring Semester)

(3) PHPS 501 Principles of Rational Drug Discovery
(3) PHPS 540 Pharmacokinetics
(2) PHPS 598 Pharmaceutical Sciences Research
8 Total Credits

Year 1 (Summer Semester)

(3) PHPS 598 Pharmaceutical Sciences Research
3 Total Credits

Year 2 (Fall Semester)

(2) PHPS Elective-1
(2) PHPS 598 Pharmaceutical Sciences Research
4 Total Credits

Year 2 (Spring Semester)

(3) PHPS Elective-2
(1) PHPS 595 Graduate Seminar in the Pharmaceutical Sciences
(3) PHPS 598 Pharmaceutical Sciences Research
7 Total Credits

Year 2 (Summer Semester) *if needed

(3) PHPS 599 Pharmaceutical Sciences Thesis Preparation
3 Total Credits

Total Hours: 33

Degrees Available at SIUE

- Master of Science

Areas of Concentration

- Medicinal Chemistry
- Pharmacology
- Pharmaceutics

Graduation Requirements

Students will be required to complete at least 30 hours of acceptable graduate credit with a GPA of 3.0 or higher (A=4.0). At least 12 semester hours must be earned from core courses and two semester hours from graduate seminar. Students must take a

minimum of four hours of electives.

At least 10 semester hours must be earned for research and students must be enrolled in a minimum of one hour of research per semester after choosing an advisor. Students must complete a thesis based upon the student's original research work.

Finally, students must assemble an advisory committee and meet with this committee for a public presentation and oral defense of the thesis.

Review the graduation policy for more information.

Multidisciplinary Biomedical and Biological Sciences

Admission Requirements

The Multidisciplinary Biomedical and Biological Sciences (MBBS) Graduate Program encompasses eight distinct concentrations on the Edwardsville, Springfield, and Carbondale campuses. Students interested in pursuing a PhD in Pharmacology or Medicinal Chemistry should visit the MBBS website to learn more.

Admission to the program will be granted by the MBBS program director. Applications received on or before January 15 will receive priority. Please contact the SIU School of Medicine with questions regarding the application process at mbbs@siumed.edu.

Concurrent admission by SIUE in unclassified status is required to participate in the cooperative PhD program. Please contact the SIUE Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu.

Curriculum

The minimum course requirements in the MBBS PhD program are listed in the SIUC Graduate Catalog and on the SIU School of Medicine MBBS website. Students must complete core coursework, electives, research tools and dissertation research credit. The required core coursework includes:

Common Required Courses

MBBS 501 or 500 (1 credit each semester)
MBBS 540 Responsible Conduct of Research (1)
MBBS 504 Fundamentals for Graduate Research (3)
Additional Core Curriculum Courses Per Concentration

Elective Courses and Research Tools

MBBS 544 Applied Statistics for the Basic Sciences (3)
MBBS 590 Readings
MBBS 595 Research
MBBS 598 Research
MBBS 600 Dissertation Research

Cooperative PhD programs in all concentrations require a total 24 hours of graduate credit on campus as a PhD student to meet the residency requirement for the PhD. Students are admitted to PhD candidacy after having completed the residency requirement, completing all required courses, the research tools requirement, and the comprehensive written preliminary examination. After admission to candidacy, students must complete 24 hours of MBBS/PHPS 600 (dissertation research) to complete the dissertation research project and prepare the dissertation document. Only six hours of dissertation research credit may be applied to the 24 hour requirement prior to entering candidacy.

Additional credit hours should be fulfilled with electives from SIUE or the SIUC. The student and the research supervisor(s), in consultation with the student's graduate committee, will determine specific courses. The multi-disciplinary curriculum for each concentration is customized to meet the student's individual interests and career goals.

Degrees Available at SIUE

- Doctor of Philosophy

Concentrations

- Medicinal Chemistry
- Pharmacology and Neuroscience

Graduation Requirements

- Maintain a GPA of at least 3.0 (A=4.0)
- Complete 24 semester hours is residency
- Pass a comprehensive written preliminary exam covering core coursework
- Complete four semester hours of PHRM 501 with a grade of B or better
- Be admitted to candidacy
- Present an oral proposal or proposed dissertation research
- Submit at least one manuscript for publication in a peer-reviewed journal
- Complete 24 hours of dissertation research
- Defend dissertation
- Deposit dissertation with the SIUC Graduate School

Please reference the SIUC Graduate Catalog for additional details.

Medicinal Chemistry Concentration

Students can pursue a concentration in medicinal chemistry that will prepare them for the complex and multidisciplinary approach needed for discovery of the next generation of therapeutics to fight acute and chronic disease. Full course requirements are listed in the SIUC Graduate Catalog.

Required Courses

(3) PHPS 500 Current Targets for Drug Discovery at SIUE
(3) PHPS 501 Principles of Rational Drug Discovery at SIUE
(3) CHEM 541 Advanced Organic Chemistry at SIUE
(3) MBBS 544 Applied Statistics for the Basic Scientist at SIU School of Medicine
(8) MBBS 550A/B Principles of Pharmacology I and II at SIU School of Medicine
(1) MBBS 500 or 501 at SIU School of Medicine, each fall and spring semester

Research Tools

PhD students are required to take two of these courses, but can take more if they choose. MBBS 540 is required for all students, CHEM 531 is required for synthetic chemistry students while CHEM 561 is required for computational chemistry students.

(1) MBBS 540 Responsible Conduct of Research (SIU School of Medicine)
and
(3) CHEM 531 Advanced Analytical Chemistry
or
(3) CHEM 561 Advanced Physical Chemistry

The medicinal chemistry concentration requires a total 24 hours of graduate credit on campus as a PhD student to meet the residency requirement for the PhD. Students are admitted to PhD candidacy after having completed the residency requirement, completing all required courses, the research tools requirement, and the comprehensive written preliminary examination. After admission to candidacy, students must complete 24 hours of MBBS/PHPS 600 (dissertation research) to complete the dissertation research project and prepare the dissertation document. 12 of the 24 credit hours of dissertation research for residency at SIUC and for the remaining 12 credit hours at SIUE. Only six hours of dissertation research credit may be applied to the 24 hour requirement prior to entering candidacy.

Additional credit hours should be fulfilled with electives from SIUE or the SIUC. The student and the research supervisor(s), in consultation with the student's graduate committee, will determine specific courses. The multi-disciplinary curriculum for each concentration is customized to meet the student's individual interests and career goals.

Pharmacology and Neuroscience Concentration

Students can pursue a concentration in pharmacology and neuroscience that will prepare them for the complex and multidisciplinary approach needed for discovery of the next generation of therapeutics to fight acute and chronic disease. Full course requirements are listed in the SIUC Graduate Catalog.

Required Courses

(4) MBBS 577 Neuroscience at SIU School of Medicine
(3) MBBS 504 Fundamentals for Graduate Research at SIU School of Medicine
(1) MBBS 540 Responsible Conduct of Research at SIU School of Medicine
(3) MBBS 544 Applied Statistics for the Basic Scientist at SIU School of Medicine
(8) MBBS 550A/B Principles of Pharmacology I and II at SIU School of Medicine
(1) MBBS 500 or 501 at SIU School of Medicine, each fall and spring semester

The pharmacology and neuroscience concentration requires a total 24 hours of graduate credit on campus as a PhD student to meet the residency requirement for the PhD. Students are admitted to PhD candidacy after having completed the residency requirement, completing all required courses, the

research tools requirement, and the comprehensive written preliminary examination. After admission to candidacy, students must complete 24 hours of PHPS 600 (dissertation research) to complete the dissertation research project and prepare the dissertation document. All 24 credit hours of dissertation research should be taken at SIUE. Only six hours of dissertation research credit may be applied to the 24 hour requirement prior to entering candidacy.

Additional credit hours should be fulfilled with electives from SIUE or the SIUC. The student and the research supervisor(s), in consultation with the student's graduate committee, will determine specific courses. The multi-disciplinary curriculum for each concentration is customized to meet the student's individual interests and career goals.

Pharmacy

Doctor of Pharmacy (PharmD) to Physician Assistant (PA) Priority Admission Pathway

The SIUE School of Pharmacy has collaborated with the SIU School of Medicine to offer a priority admission pathway, allowing a selective number of SIUE PharmD graduates admission into the highly competitive SIU Physician Assistant Program upon PharmD graduation.

Doctor of Pharmacy (PharmD) and Physician Assistant (PA) each have their own unique roles and responsibilities, but also have some overlap in education and training. Pharmacists (PharmD) are experts in medication management, drug information, and clinical pharmacy patient care. Physician Assistants are healthcare professionals that provide medical care, including patient evaluation and physical assessment, disease diagnosis, prescribing treatments, and performing medical procedures.

Benefits of Combined PharmD and PA Degrees

- More in-depth training in physical assessment and diagnostic skills
- Broadened clinical experiences in various practice settings
- Expanded scope of practice, direct patient interactions, and clinical decision-making
- Increased marketability and competitiveness in niche clinical practices

Curriculum

This priority admission pathway is not a concurrent or dual degree program. Students will complete the PharmD degree prior to matriculating into the PA program. Please refer to the individual program for a sample curriculum.

- SIUE Doctor of Pharmacy Curriculum
- SIU Physician Assistant Curriculum

Eligibility

- Currently enrolled in the PharmD program at SIUE
- PharmD GPA ≥ 3.5
- Have earned a GPA of 3.2 (on a 4.0 scale) or higher, on the following pre-pharmacy and pharmacy coursework collectively:
  - Overall coursework and science coursework as calculated by CASPA
  - PA program prerequisites as calculated by SIU
- Completed three didactic years of the PharmD program and is on-track for PharmD degree conferral in the following year prior to matriculation into the PA program

How to Apply

PharmD graduates considering a PA degree should carefully assess their career goals, interests, and the type of patient care they wish to provide to determine if this transition aligns with their aspirations in healthcare.

April 15 of P-3 year: Priority admission pathway opens for the PA admission cycle. PharmD students may begin applying to the pathway by submitting **a letter of intent** to the SOP Office of Academic Affairs (SOP OAA) that indicates they would like to apply to the SIU PA program through the priority admission pathway.

May 1 of P-3 year: PharmD students may begin their official **application** to the PA program through CASPA.

October 15 of P-4 year (same calendar year): **Final deadline** for all the letters of intent to the SOP OAA and application in CASPA. SOP OAA will send a list of PharmD students applying through the priority admission pathway to the Director of the PA program. The PA program will begin reviewing applications from these PharmD students.

Please note: Once the applicant is invited by the program for an interview, they must then apply to the SIU Graduate School and pay the non-refundable application fee. Create an account and login to the online application system, select 'MSPA' and the appropriate summer semester before you enter information. Do not upload transcripts, essays,

personal statements, resumes, or reference letters to this supplemental application. Those should be submitted to CASPA.

December 1 of P-4 year: PharmD students will be notified of the decision from the PA program regarding an interview date and their admission application.

Application Checklist

- Transcripts from pre-pharmacy studies and SIUE PharmD
- A personal statement
- Curriculum Vitae
- Three (3) letters of recommendation (preferred to be from faculty, employer, and a PharmD rotation preceptor)

Contacts

SIUE School of Pharmacy
Phone: 618.650.5131
Email: sopacademicaffairs@siue.edu

SIU School of Medicine PA program
Phone: 618.453.8850
Email: paadvisement-L@listserv.siu.edu
https://www.siumed.edu/paprogram/contact-us

Admission Requirements

Conditional Entry Program Admission

Incoming freshmen who enter SIUE directly from high school may be considered for the Conditional Entry Program (CEP). The CEP is an early assurance program that allows selected students to earn direct admission to the SIUE School of Pharmacy (SOP). In order to qualify for consideration to the CEP, students must apply to the Meridian Scholars Program at SIUE and upload a supplemental personal statement indicating an interest in pharmacy to the Meridian Scholars Program application. On a competitive basis, candidates will be invited to interview and the top candidates will receive a formal invitation to participate in the CEP.

SIUE students not in CEP have access to the early assurance program with the College Conditional Entry Program (CCEP). Current SIUE students interested in this program should contact the Office of Professional & Student Affairs in the School of Pharmacy to apply. Students that meet qualifications will be interviewed and top candidates will receive a formal invitation to participate in the CCEP.

Traditional Admission

Admission to the professional program of the School of Pharmacy is limited and competitive. For this reason, achieving the minimum admission requirements does not guarantee admission. To be considered for admission to the PharmD program in the School of Pharmacy, candidates must:

- Complete the pre-pharmacy curriculum by the end of the spring term prior to planned enrollment in the School of Pharmacy.
  - All courses listed in the pre-pharmacy curriculum must be completed with a grade of C or better.
  - Applicants must have a minimum grade point average of 2.75 (on a 4.0 scale) in both pre-pharmacy curriculum grade point average and pre-pharmacy science and mathematics grade point average.
- Complete a PharmCAS application and keep the PharmCAS record updated.
- Meet the technical standards for admissions and continued enrollment. For details, please visit the School of Pharmacy website.
- Successfully complete an on-campus professional program interview and writing assessment.

Based on the criteria above, the top candidates will be invited to matriculate in the PharmD program.

Traditional Admission Application Procedures

Applications are submitted via PharmCAS at pharmcas.org. Students should begin the application for the PharmD one year before their anticipated start date. Completed applications will be considered by the School of Pharmacy admissions committee. Selected students will be invited for an on-campus interview and writing assessment. All applicants must complete the PharmCAS application and submit the following credentials to PharmCAS:

- Official copies of all college and university

transcripts
- Letters of recommendation

Sample Curriculum

Students pursuing the PharmD degree are not required to complete the University general education requirements. However, students are required to complete the pre-pharmacy curriculum listed below. Completion of the pre-pharmacy course requirements does not guarantee admission to the SIUE School of Pharmacy. In addition, courses that will meet the SIUE pre-pharmacy requirements may not meet the requirements for completion of other majors at SIUE.

Sample Pre-Pharmacy Curriculum

Year 1 (Fall Semester)

(4) CHEM 121a – General Chemistry I
(1) CHEM 125a – General Chemistry Lab I
(3) ENG 101 – English Composition I
(4) BIOL 150 – Intro to Biological Sciences I
(3) RA 101 - Reasoning & Argumentation (recommended) or any PHIL course
15 Total Credits

Year 1 (Spring Semester)

(4) BIOL 151 – Intro to Biological Sciences II
(4) CHEM 121b – General Chemistry II
(1) CHEM 125b – General Chemistry II Lab
(5) MATH 150 – Calculus I or MATH 145 – Calculus for the Life Sciences
(3) ENG 102 – English Composition II
17 Total Credits

Year 2 (Fall Semester)

(4) BIOL 240a – Human Anatomy & Physiology I
(3) CHEM 241a – Organic Chemistry I
(5) PHYS 131/131L – College Physics I
(3) ACS 101 or 103 - Oral Expression
(3) ECON 111/112 – Principles of Macro/Microeconomics
18 Total Credits

Year 2 (Spring Semester)

(4) BIOL 350 – Microbiology or BIOL 250 Bacteriology
(4) BIOL 240b – Human Anatomy & Physiology II
(3) CHEM 241b – Organic Chemistry II
(2) CHEM 245 – Organic Chemistry Lab
(4) STAT 244 – Statistics
(3) SOC 111 or PSYC 111
20 Total Credits

Sample PharmD Curriculum

First Professional Year (Fall Semester)

(4) PHPS 700 – Principles of Drug Action I
(3) PHPS 702 – Biochemical Principles for Pharmacy
(2) PHPS 704 – Biopharmaceutics and Drug Delivery I
(3) PHAS 708 – Healthcare Systems
(1) PHPR 711 – Drug Information
(1) PHPR 717 - Patient-Centered Communication: From Theory to Practice
(1) PHAS 716 – Ethical Issues in Health Care
(1) PHPR 718A – Pharmacy Skills Lab I
(2) PHEP 719A – Personal and Professional Development I
18 Total Credits

First Professional Year (Spring Semester)

(2) PHPS 701 – Principles of Drug Action II
(3) PHPS 705N – Biopharmaceutics and Drug Delivery II
(1) PHPS 707N – Pharmacy Calculations
(3) PHPR 710 – Biomedical Literature Evaluation
(3) PHPS 712 – Immunology and Immunization Training
(3) PHPR 713N – Self Care & Alternative Medicines
(1) PHPR 718B – Pharmacy Skills Lab II
(1) PHEP 719B – Personal and Professional Development II
17 Total Credits

Second Professional Year (Fall Semester)

(3) PHPS 720N – Pharmacokinetics
(2) PHAS 728N – Pharmacy Management I
(4) PHPT 730A – Integrated Pharmacotherapeutics I
(4) PHPT 730B – Integrated Pharmacotherapeutics II
(2) PHPR 735N – Physical Assessment & Patient Care Skills
(1) PHPR 738A – Pharmacy Skills Lab III
(3) PHEP 739A – Personal and Professional Development III
19 Total Credits

Second Professional Year (Spring Semester)

(2) PHPS 703 – Principles of Pharmacogenomics

(2) PHAS 709 – Healthcare and Financial Management
(4) PHPT 730C – Integrated Pharmacotherapeutics III
(4) PHPT 730D – Integrated Pharmacotherapeutics IV
(1) PHPR 738B – Pharmacy Skills Lab IV
(3) PHEP 739B – Personal and Professional Development IV
(2) PHPR 744 - Health Promotion & Literacy
18 Total Credits

Third Professional Year (Fall Semester)

(2) PHAS 733N – Pharmacy Law
(4) PHPT 750A – Integrated Pharmacotherapeutics V
(4) PHPT 750B – Integrated Pharmacotherapeutics VI
(2) PHAS 756 – Pharmacy and Population Health
(1) PHPR 758A – Pharmacy Skills Lab V
(1) PHEP 759A – Personal and Professional Development V
(5) Electives
19 Total Credits

Third Professional Year (Spring Semester)

(1) PHEP 751 – Essentials of Research Application
(2) PHAS 754 – Pharmacy Management II
(4) PHPT 750C – Integrated Pharmacotherapeutics VII
(4) PHPT 750D – Integrated Pharmacotherapeutics VIII
(1) PHPR 758B – Pharmacy Skills Lab VI
(1) PHEP 759B – Personal and Professional Development VI
(5) Electives
18 Total Credits

Fourth Professional Year (Summer Semester)

(6) PPHEP 780 – APPE (Community Pharmacy)
(6) PHEP 781 – APPE (Hospital Pharmacy)
12 Total Credits

Fourth Professional Year (Fall Semester)

(6) PHEP 782 – APPE (Ambulatory Care)
(6) PHEP 783 – APPE (Acute Care/General Medicine)
(6) PHEP 784 – APPE (Specialized Practice)
18 Total Credits

Fourth Professional Year (Spring Semester)

(6) PHEP 784 – APPE (Specialized Practice)
(6) PHEP 784 – APPE (Specialized Practice)
(3) PHEP 789 – APPE (ImPaCT: Improving Patient Care for Tomorrow)
15 Total Credits

Degree Requirements

General Education Requirements for the Major

Students pursuing the PharmD degree are not required to complete the University general education requirements. However, students are required to complete the pre-pharmacy curriculum listed below. Completion of the pre-pharmacy course requirements does not guarantee admission to the SIUE School of Pharmacy. In addition, courses that will meet the SIUE pre-pharmacy requirements may not meet the requirements for completion of other majors at SIUE.

Pre-Pharmacy Curriculum

- BIOL 150, 151, 240A, 240B
- BIOL 250 or BIOL 350 (BIOL 220 is a prerequisite for BIOL 350)
- CHEM 121A, 121B, 125A, 125B, 241A, 241B, 245
- ECON 111 or ECON 112
- ENG 101, 102
- MATH 150 or MATH 145
- PHYS 131/131L
- STAT 244
- RA 101 or any PHIL
- SOC 111 or PSYC 111
- ACS 101 or ACS 103

Degree Requirements PharmD

- PHAS 708, 709, 716, 728N, 733N, 754, 756
- PHEP
  719A, 719B, 739A, 739B, 751, 759A, 759B, 780, 781, 782, 783, 784*, 789
- PHPR 710, 711, 713N, 717,
  718A, 718B, 735N, 738A, 738B, 744, 758A, 758B
- PHPS
  700, 701, 702, 703, 704, 705N, 707N, 712, 720N
- PHPT
  730A, 730B, 730C, 730D, 750A, 750B, 750C, 750D
- Electives**

* Students must repeat PHEL 784 to accumulate 18 credit hours for graduation

** Students are required to accumulate 10 elective credits for graduation. Approved internal and external electives are listed below. Students may apply no more than five hours of external electives and four hours of independent study toward completion of elective hours. Exceptions can be made in certain situations for students in the concurrent degree programs with the approval of the Office of Professional and Student Affairs.

Approved Internal Electives

PHEL courses

Approved External Electives

This list contains classes that may be of interest to PharmD students to fulfill elective requirements. The inclusion of a course on this list does not imply direct application to pharmacy, but may allow the student to develop areas of personal interest or to expand their understanding of professional opportunities. If interested in one of these courses, the student must contact SOP Office of Professional and Student Affairs to inquire about enrollment procedures. The curriculum committee is not promoting and cannot guarantee enrollment in the following courses. The committee will perform quality assurance measures to continually assess the inclusion of courses on this list:

- ACS 403
- ENG 491
- HONS 499
- PHIL 321
- PSYC 431
- PBHE 598
- SOCW 420 (Students cannot earn credit toward the PharmD for both SOCW 420 chemical dependency and PHEL 768E addiction.)

American Pharmacists Association (The university issuing the credits may vary from year to year.)

- APhA Institute on Alcoholism and Drug Dependencies

Wingate University

- PHAR 881 Sports Pharmacy

University of Florida

- PHA6935 Veterinary Pharmacy
- PHA6935 History in Pharmacy Leadership (Students cannot earn credit toward the PharmD for both PHA6935 History in Pharmacy Leadership and PHEL 793E History of Pharmacy Leadership.)
- PHA6357 Herbal and Dietary Supplements

University of Wyoming

- PHCY 5240 Pharmaceutical Homicide Prevention
- PHCY 5670 Medication Malpractice

Additional requirements may be expected for professional pharmacy students. See individual instructor for specific information.

Retention

- Maintain a cumulative grade point average of 2.00 or higher in the professional program.
- Receive no more than six credit hours of an F and/or WF grade in any combination of didactic courses and remain eligible for graduation. All F and/or WF grades must be remediated successfully.
- Receive no more than two credit hours of “no credit” grades in pass/no credit courses and remain eligible for graduation. All “no credit” grades must be remediated successfully.
- Receive no more than one grade of F and/or WF in an advanced pharmacy practice experience, even if the initial F or WF grade was successfully remediated, and remain eligible for graduation. All F and/or WF grades must be remediated successfully.
- Remain continuously enrolled as a full-time student and complete the Doctor of Pharmacy program within six years of entering the program.
- Receive no more than one grade of F and/or WF in IPPE III or IPPE IV, even if the initial F or WF grade was successfully remediated, and remain eligible for graduation. All F and/or WF grades must be remediated successfully.
- Must successfully remediate F, WF or "no credit" grades within 12 months
- Cannot receive a second suspension

Students failing to meet the above criteria may

receive academic counseling, be put on academic probation, follow a remediation plan, or receive a dismissal recommendation from the academic standards and progression committee.

Degrees Available at SIUE

- Doctor of Pharmacy (PharmD)
- PharmD and Master of Business Administration (MBA) concurrent degrees
- PharmD and Master of Public Health (MPH) concurrent degrees
- PharmD and Master of Science in Healthcare Informatics (MSHI) concurrent degrees
- PharmD and Master of Science in Pharmaceutical Sciences concurrent degrees
- PharmD and Master of Public Administration (MPA) concurrent degrees

Certificates

- Healthcare Information Systems
- Organizational Leadership

Specializations

For students interested in a specific area of pharmacy, specializations provide concentrated training and focus through designated didactic electives and advanced practice experience electives. Focus areas for pharmacy career opportunities could be developed into specializations. Examples may include leadership, research, education, geriatric care, or other areas of advanced practice.

Specialization status with the University allows for the specialization to be documented on the student's official transcript.

- Pharmacy Acute Care
- Pharmacy Education
- Pharmacy Pediatrics
- Pharmacy Psychiatric

Other Opportunities

- PharmD to Physician Assistant Priority Admission Pathway

Education Specialization

Students can pursue a specialization in education that will prepare them for teaching positions in pharmacy. The specialization consists of six credits of didactic elective courses that are taken during the third professional year and one six-credit-hour elective advanced pharmacy practice experience taken during the fourth professional year. Students who are interested in the Education Specialization are chosen to participate and gain valuable experience related to all areas of pharmacy education.

Global Opportunities

SIUE School of Pharmacy students have numerous global education opportunities. Independent Studies, ImPaCT, and APhA-ASP International Pharmaceutical Students' Federation (IPSF) are just a few of the ways to create new partnerships and open the door for more global experiences. Students gain cultural awareness, exposure to health disparities, world perspective, understanding of diverse healthcare systems, alternative medicine knowledge, maturity, tolerance and compassion from global education experiences.

The SIUE School of Pharmacy has engaged in sending and receiving students from several countries including Australia, Costa Rica, Croatia, Czech Republic, Ecuador, Ghana, Guatemala, Haiti, Hungary, India, Israel, Jamaica, Poland, Portugal and Venezuela and is continually searching for new global partners and opportunities.

Graduation Requirements

Students are eligible to graduate when all of the following criteria have been met:

- Successful completion of the PharmD curriculum as approved by the faculty in the School of Pharmacy
- Completion of 10 credit hours of electives
- Academic good standing with a cumulative GPA of 2.0 or above

Healthcare Information Systems

Certificate

SIUE School of Pharmacy, in partnership with Saint Louis University, offers a Healthcare Information Systems certificate to PharmD students and alumni. The certificate is offered online through the School for Professional Studies at SLU.

The online Healthcare Information Systems certificate provides a background of information systems and technology, programming, database design, networking fundamentals, healthcare information systems terminology and IT systems for healthcare organizations.

This certificate is designed for those seeking to gain the tools necessary to succeed in the healthcare industry.

Students may enroll in the SLU Certificate programs either while they are enrolled in a PharmD program or following graduation as alumni.

Nine credit hours of transfer course work will be accepted, if it is within 10 years of completion.

Organizational Leadership Certificate

SIUE School of Pharmacy, in partnership with Saint Louis University, offers an Organizational Leadership certificate to PharmD students and alumni. The certificate is offered online through the School for Professional Studies at SLU.

The Organizational Leadership certificate complements major fields of study by developing the knowledge, skills and experience needed to assume leadership and administrative roles in corporate or not-for-profit settings.

This online program will allow you to become proficient in:

- Understanding and leveraging your leadership style
- Overseeing organizational units and departments
- Developing interpersonal relationships and teams
- Enhancing workplace communication

Students may either enroll in the SLU Certificate programs while they are enrolled in a PharmD program or following graduation as alumni.

Nine credit hours of transfer coursework will be accepted, if it is within 10 years of completion.

Acute Care Specialization

Students can pursue a specialization in acute care that will allow them to have a focused path to develop their skills caring for patients in the acute care setting and enhance their competitiveness for postgraduate training. The specialization consists of six credits of approved acute care didactic elective courses that are taken during the third professional year, and one six-credit-hour elective acute care advanced pharmacy practice experience taken during the fourth professional year. Students who are selected to pursue this specialization will work with a faculty mentor to fulfill additional requirements in order to develop their acute care skills and navigate through postgraduate education.

Pediatric Specialization

Students can pursue a specialization in pediatrics that will prepare them for a career in pediatric pharmacy and enhance their competitiveness for pediatric post-graduate training. The specialization consists of three credit hours of didactic elective courses and one credit hour of independent study project that are taken during the third professional year; and two six credit hour elective advanced pharmacy practice experience taken during the fourth professional year.

Psychiatric Specialization

Students can pursue a specialization in psychiatry that will prepare them for a career in psychiatric pharmacy. The specialization consists of four credits of didactic elective courses that are taken during the third professional year and two six-credit hour elective advanced pharmacy practice experiences taken during the fourth professional year. Students who are selected to pursue this specialization will work with a faculty mentor to fulfill additional requirements in order to enhance their readiness for post-graduate residency training and a career in psychiatric pharmacy.

PharmD Healthcare Informatics

Admission Requirements

Prior to applying for the concurrent program, the applicant must obtain approval from the Office of Professional and Student Affairs in the School of Pharmacy.

The PharmD student may be admitted into the concurrent program after completion of at least the first professional year. Applications for the Master of Science in Healthcare Informatics (MSHI) program must be submitted to the Graduate School by March 15.

Only PharmD students with a minimum cumulative grade point average of 3.0 in the PharmD program and in good academic standing are eligible to apply for the concurrent program.

Required Credit Hours/Tuition and Fees

- 172
- Visit the Paying for College website for detailed tuition information

Curriculum

When taken separately, there are 154 credit hours in the PharmD program and 36 credit hours in the MSHI program for a total of 190 credit hours. Students in the concurrent program take 145 credit hours in the PharmD program and 27 credit hours in the MHSI program for a total of 172 credit hours.

MSHI Degree Requirements

The MSHI program consists of 36 credit hours of online courses. PharmD students in the concurrent program will meet nine of these credit hours with the following required PharmD courses:

- PHAS 728N Pharmacy Management I (2 hours) and PHAS 754 Pharmacy Management II (2 hours) will substitute for PSYC 576 Graduate Seminar in Organizational Development (3 hours)
- PHAS 756 Pharmacy and Population Health (2 hours) will substitute for PBHE 455 Introduction to Epidemiology (3 hours)
- PHEP 789 ImPaCT Project (3 hours) will substitute for HCIM 596A Capstone I (1 hour), 596B Capstone II (1 hour), and 596C Capstone III (1 hour). The capstone/senior project must be healthcare informatics-focused and will be used to fulfill capstone requirements for both the PharmD and MSHI programs. The project must be approved by three graduate faculty members, one of which must be the MSHI program director.

PharmD Degree Requirements

The School of Pharmacy will accept the following required MSHI courses as external electives towards the elective requirement of the PharmD program:

- NURS 509 Interdisciplinary Healthcare Informatics (3 hours)
- NURS 511 Social, Ethical and Legal Issues in an Information Age (3 hours)
- NURS 512 Managing Quality and Safety in Healthcare (3 hours)

In addition, students enrolled in the concurrent program have the option to take a School of Pharmacy approved elective or an independent study in order to fulfill the 10 credit hours of elective requirement for the PharmD program. Students will also be required to focus the ImPaCT capstone project on healthcare informatics.

Progression and Retention
Students accepted into the concurrent program will need to maintain a cumulative GPA of 3.0 or higher in graduate courses.

Students placed on pharmacy academic probation will be required to pause their concurrent degree studies until they successfully remediate pharmacy courses and return to non-probation status.

Students who fail to meet the master's progression criteria must meet with the master's program director to discuss a retention and remediation plan. The School of Pharmacy will also be involved in the discussion of the progression status of the concurrent degree studies. Based on the timeline, students may be unable to complete the concurrent degree.

Degree Available at SIUE

- Doctor of Pharmacy/Master of Science in Healthcare Informatics

Graduation Requirements

Students enrolled in the concurrent program will need to maintain a cumulative GPA of 3.0 or higher in the graduate courses.

The capstone/ImPaCT project must be health informatics focused and will be used to fulfill the exit requirement for both the PharmD and MSHI programs. The project must be approved by three graduate faculty members, of which one is the MSHI Program Director.

A student who is unable to complete any of the following: NURS 509, NURS 511, or NURS 512, would be required to complete courses to fulfill the elective requirements for the PharmD degree. It is possible that a delay in obtaining the PharmD degree could occur if the student discontinues the concurrent program.

PharmD MBA

Admission Requirements

Prior to applying for the concurrent program, applicants must obtain approval from the Office of Professional and Student Affairs in the School of Pharmacy.

The PharmD student may be admitted into the concurrent program after the completion of at least the first professional year. Applications for the MBA program must be submitted to the Graduate School by March 15. The selection of accepted concurrent PharmD/MBA students will be competitive based on available resources.

Only PharmD students with a minimum cumulative grade point average of 3.2 in the PharmD program and in good academic standing are eligible to apply for the concurrent program.

Required Credit Hours/Tuition and Fees

- 169
- Visit the Paying for College website for detailed tuition information

Curriculum

When taken separately, there are 154 credit hours in the PharmD program and 36 credit hours in the MSPS program for a total of 190 credit hours. Students in the concurrent program take 145 credit hours in the PharmD program and 24 credit hours in the MBA program for a total of 169 credit hours.

MBA Degree Requirements

The concurrent degree student will take 24 credits of required MBA courses. In addition to these 24 hours of required courses, the MBA requires 12 hours of elective credits. Students will meet these MBA elective requirements with the following required PharmD courses:

- PHAS 708 Health Care Systems (3 hours)
- PHAS 709 Health Care and Financial Management (2 hours)
- PHAS 728N Pharmacy Management I (2 hours)
- PHAS 733N Pharmacy Law (2 hours)
- PHAS 754 Pharmacy Management II (2 hours)
- PHAS 756 Pharmacy and Population Health (2 hours)

Students are encouraged to take PHEP 784, Advanced Pharmacy Practice Experience – Leadership Elective, to enhance their learning.

The required MBA courses include ACCT 524, MKTG 525, CMIS 526, FIN 527, MBA 521, MBA 522, ECON 528, and MBA 534.

PharmD Degree Requirements

The School of Pharmacy will accept the following required MBA courses as external electives towards the elective requirement of the PharmD program:

- MBA 522 Decision Making (3 hours)
- MKTG 525 Marketing Analysis & Applications (3 hours)
- MBA 534 Strategic Management (3 hours)

In addition, students have the option to take an SOP approved elective, an independent study, MBA 523 Negotiation & Interpersonal Skills (3 hours), or PROD 529 Operations Management (3 hours) in order to fulfill the 10 credit hours of elective requirement for the PharmD program.

Progression and Retention

The students accepted into the concurrent program will need to maintain a cumulative grade point average of 3.00 or greater for the graduate courses. In addition, students must satisfy a comprehensive examination requirement by earning a grade of B or above in MBA 534.

Students placed on pharmacy academic probation will be required to pause their concurrent degree studies until they successfully remediate pharmacy courses and return to non-probation status.

Students who fail to meet the master's progression criteria must meet with the master's program director to discuss a retention and remediation plan. The School of Pharmacy will also be involved in the discussion of the progression status of the concurrent degree studies. Based on the timeline,

students may be unable to complete the concurrent degree.

Degrees Available at SIUE

- Doctor of Pharmacy/Master of Business Administration

Graduation Requirements

Students enrolled in the concurrent program will need to maintain a cumulative GPA of 3.0 or higher in the graduate courses. In addition to completing the coursework, students must also satisfy a comprehensive examination requirement by earning a grade of B or above in MBA 534. Students who earn a grade below B will be given a second opportunity to complete the course in a satisfactory manner. Performance of individuals who fail to earn a B or above in the second attempt will be reviewed by two additional members of the School of Business MBA Committee, who may recommend that the student be dropped from the program or, in rare instances, be permitted a third attempt to earn a grade of B or above under another instructor.

A student who is unable to complete any of the following: MBA 522, MKTG 525, and MBA 534, would be required to complete courses to fulfill the elective requirements for the PharmD degree. It is possible that a delay in obtaining the PharmD degree could occur if the student discontinues the concurrent program.

PharmD Pharmaceutical Sciences

Admission Requirements

Prior to applying for the concurrent program, applicants must obtain approval from the Office of Professional and Student Affairs in the School of Pharmacy.

The PharmD student may be admitted into the concurrent program after the completion of at least the first professional year. Applications for the Master of Science in Pharmaceutical Sciences program must be submitted to the Graduate School by March 15. The selection of accepted concurrent PharmD/MSPS students will be competitive based on available resources.

Only PharmD students with a minimum cumulative grade point average of 3.5 in the PharmD program (or with the approval of the MSPS program director) and in good academic standing are eligible to apply for the concurrent program.

Required Credit Hours/Tuition and Fees

- 164
- Visit the Paying for College website for detailed tuition information

Curriculum

When taken separately, there are 154 credit hours in the PharmD program and 30 credit hours in the MSPS program for a total of 184 credit hours. Students in the concurrent program take 144 credit hours in the PharmD program and 20 credit hours in the MSPS program for a total of 164 credit hours.

MSPS Degree Requirements

The MSPS program consists of at least 30 credit hours, of which 12 hours must be earned from core courses. Students must take a minimum of four hours of electives and at least 10 hours of research, complete a thesis and defend the thesis. PharmD students in the concurrent program will meet 10 of these credit hours with the following PharmD courses:

- PHPS 700 Principles of Drug Action I (4 hours) will substitute for PHPS 420 Principles of Pharmacology (3 hours). The additional credit hour will be awarded one elective credit hour.
- PHPS 702 Biochemical Principles for Pharmacy (3 hours) will serve as an elective course for the MSPS program. Along with the one elective hour from PHPS 700, these fulfill the elective requirements of the MSPS program.
- PHEP 789 ImPaCT (3 hours) will substitute for three hours of PHPS 598 Pharmaceutical Sciences Research. The research project must be pharmaceutical science focused that also fulfills the ImPaCT requirement for the PharmD program.

Students will be required to take:

- PHPS 500 Cellular Targets for Drug Discovery (3 hours)
- PHPS 501 Principles of Rational Drug Discovery (3 hours)
- PHPS 510 Pharmaceutical Sciences Foundations and Research (1 hour)
- PHPS 540 Pharmacokinetics (3 hours)
- PHPS 595 Graduate Seminar in the Pharmaceutical Sciences (2 hours)*
- PHPS 598 Pharmaceutical Sciences Research (at least 7 more hours)
- PHPS 599 Pharmaceutical Sciences Thesis Preparation

Students may take additional elective courses, research hours, or PHPS 599 Pharmaceutical Sciences Thesis Preparation to ensure a minimum of 30 credit hours for the MSPS program.

*Attendance to all the graduate seminars is required, regardless of whether a student is registered for PHPS 595.

PharmD Degree Requirements

The School of Pharmacy will accept the following MSPS courses as credits toward the elective requirement of the PharmD program:

- PHPS 500 Cellular Targets for Drug Discovery (3

hours)
- PHPS 501 Principles of Rational Drug Discovery (3 hours)
- PHPS 515 Introductory Biostatistics for the Pharmaceutical Sciences (3 hours)
- PHPS 539 Evolutionary Medicine (3 hours)
- PHPS 540 Pharmacokinetics (3 hours)
- PHPS 595 Graduate Seminar in the Pharmaceutical Sciences (1 hour each, may repeat up to 2 hours total)

A total of at least 10 credit hours from these approved courses will fulfill the elective requirement of the PharmD program. Students will have to meet expectations of the APPEs and the MSPS courses. Depending on the geographic placement for the APPEs, a student may not be able to take a concurrent MSPS course.

Progression and Retention
Students accepted into the concurrent program will need to maintain a cumulative GPA of 3.0 or higher in graduate courses.

Students placed on pharmacy academic probation will be required to pause their concurrent degree studies until they successfully remediate pharmacy courses and return to non-probation status.

Students who fail to meet the master's progression criteria must meet with the master's program director to discuss a retention and remediation plan. The School of Pharmacy will also be involved in the discussion of the progression status of the concurrent degree studies. Based on the timeline, students may be unable to complete the concurrent degree.

Degree Available at SIUE

- Doctor of Pharmacy/Master of Science in Pharmaceutical Sciences

Graduation Requirements

Students enrolled in the concurrent program will need to maintain a cumulative GPA of 3.0 or higher in the graduate courses. Students must fulfill the graduation requirements of the MSPS program, which include:

- At least 30 hours of MSPS courses or approved substitutions
- At least 10 semester hours of research
- A thesis based upon the student's original research
- An oral defense of the thesis

In addition, students must fulfill all requirements of the PharmD program, including 10 semester hours of electives and a final ImPaCT project.

A student in the concurrent program who is unable to accumulate at least 10 credit hours from MSPS courses would be required to complete additional courses to fulfill the elective requirements for the PharmD. It is possible that a delay in obtaining the PharmD could occur if the student drops out of the concurrent program.

PharmD Public Administration

Admission Requirements

1. Prior to applying for the concurrent program, the applicant must obtain approval from the Office of Professional and Student Affairs in the School of Pharmacy.
2. The PharmD student may be admitted into the concurrent program after completion of at least the first professional year, unless the student has earned a baccalaureate degree prior to entering the pharmacy program. Applications for the MPA program must be submitted to the Graduate School by March 15th. Admission will be conditional upon meeting all Graduate School requirements. The selection of accepted concurrent PharmD/MPA students will be competitive based on available resources.
3. Only PharmD students with a minimum cumulative GPA of 3.0 in the PharmD program who are in good academic standing are eligible to apply for the concurrent program.

Required Credit Hours/Tuition and Fees

- 168-171 Credit Hours
- Visit the Paying for College website for detailed tuition information.

Curriculum

When taken separately, there are 154 credit hours in the PharmD program and 39 hours in the MPA program. Students in the concurrent PharmD/MPA program will take 144 credit hours in the PharmD program and 24-27 credit hours in the MPA program. The program curriculum guide demonstrates course progression.

MPA Degree Requirements
The MPA program consists of 21 credit hours of public administration core courses and 18 hours of elective courses. The required MPA courses include PAPA 500, PAPA 420, PAPA 501, PAPA 510, PAPA 530, PAPA 540, and PAPA 550 (3 credit hours each).

For PharmD students in the concurrent program, the following courses are MPA-approved electives:

Core PharmD Courses

- PHAS 708 Health Care Systems (3 hours)
- PHAS 716 Ethical Issues in Healthcare (1 hour)
- PHAS 728N Pharmacy Management I (2 hours)
- PHAS 709 Health Care and Financial Management (2 hours)
- PHAS 733N Pharmacy Law (2 hours)
- PHAS 754 Pharmacy Management II (2 hours)
- PHAS 756 Pharmacy and Population Health (2 hours)

Elective PharmD Course

- PHEL 791E Pharmacy Advocacy and Leadership Development (2 hours)

Students are required to take additional credit hours from the MPA elective list to fulfill the 18-hour elective requirements of the MPA program. Depending on the offering of PHEL 791E, students in the concurrent program may need to take 1 or 2 additional MPA electives (3-6 hours).

PharmD Degree Requirements
The School of Pharmacy will accept the following required MPA courses as external electives toward the 10-hour elective requirement of the PharmD program:

Core MPA Courses

- PAPA 420 Quantitative Analysis (3 hours)
- PAPA 550 Public Policy (3 hours)

Elective MPA Courses

- PAPA 561 Application of Biostatistics and Epidemiology Principles to Health Care (3 hours)
- PAPA 565 Intro to Healthcare Management (3 hours)
- PAPA 567 Topics in Health Care (3 hours)
- PAPA 576 Strategic Planning (3 hours)
- PAPA 580 Development of Public and Nonprofit Leadership Skills (3 hours)

Depending on the availability of the elective MPA course offerings, students may need to take additional School of Pharmacy approved electives or

independent study to fulfill the 10 credit hours of elective requirement for the PharmD program. Students will have to meet expectations of the APPEs and the MPA courses. Depending on the geographic placement for the APPEs, a student may not be able to take a concurrent MPA course.

Progression and Retention
The School of Pharmacy Academic Standards and Progression Policies apply to the PharmD courses in the concurrent program. Students who fail to meet the MPA progression criteria and/or are placed on pharmacy academic probation must meet with both the MPA program director and the School of Pharmacy Office of Professional and Student Affairs to discuss a retention and remediation plan.

Degrees Available at SIUE

- PharmD and Master of Public Administration (MPA) concurrent degrees

Graduation Requirements

Students must receive a passing grade on a MPA comprehensive exit examination. To sit for the examination, students must have a GPA of 3.0 in the MPA core courses and program overall. Students must also submit two papers written during their coursework as evidence of their writing skills prior to taking the comprehensive examination. Students must complete the MPA program with a GPA of 3.0 in the core courses and in the MPA program overall.

Review the graduation policy for more information.

Inability to Complete the Concurrent PharmD/MPA Program

A student who is unable to successfully complete PAPA 420 and PAPA 550 would be required to complete courses to fulfill the elective requirements for the PharmD. It is possible that a delay in obtaining the PharmD could occur if the student discontinues the concurrent program. Continuation toward the MPA would be approved on a case-by-case basis by the MPA program director if a student discontinues the PharmD program.

PharmD Public Health

Admission Requirements

Prior to applying for the concurrent program, the applicant must obtain approval from the Office of Professional and Student Affairs in the School of Pharmacy.

The PharmD student may be admitted into the concurrent program after completion of at least the first professional year.

Applications for the MPH program must be submitted to the Graduate School by March 1. The selection of accepted concurrent PharmD/MPH students will be competitive based on available resources.

Only PharmD students with a minimum cumulative grade point average of 3.0 in the PharmD program who are in good academic standing are eligible to apply for the concurrent program.

Required Credit Hours/Tuition and Fees

- 170
- Visit the Paying for College website for detailed tuition information.

Curriculum

When taken separately, there are 154 credit hours in the PharmD program and 42 credit hours in the MPH program, for a total of 196 credit hours. Students in the concurrent PharmD/MPH program will take 143 credit hours in the PharmD program and 27 credit hours in the MPH program, which includes 9 hours of PharmD courses that are approved as MPH electives.

MPH Degree Requirements
The MPH program consists of 33 credit hours of public health core courses and nine hours of leadership-focused electives. For PharmD students in the concurrent program, the following courses are MPH-approved electives:

- PHAS 716 Ethical Issues in Healthcare (1 hour)
- PHAS 728N Pharmacy Management I (2 hours)
- PHAS 709 Health Care and Financial Management (2 hours)
- PHAS 733N Pharmacy Law (2 hours)
- PHAS 754 Pharmacy Management II (2 hours)

In addition, PharmD students in the concurrent program will meet six hours of the core MPH curriculum with the following PharmD courses:

- PHEP 784 Advanced Pharmacy Practice Experience: Specialized Practice (6 hours), from a list of MPH-approved APPEs, will substitute for PBHE 560 Applied Practice Experience (3 hours).
- PHEP 789 Advanced Pharmacy Practice Experience: ImPaCT (3 hours) will substitute for one of the PBHE 599A Capstone Semesters (3 hours). The capstone/ImPaCT project must be public health focused and will be used to fulfill the exit requirement for both PharmD and MPH programs. The project must be approved by the MPH program director.

PharmD Degree Requirements
The School of Pharmacy will accept the following required MPH courses as external electives toward the 10 hour elective requirement of the PharmD program:

- PBHE 500 Core Principles in Public Health and Public Health Leadership (3 hours)
- PBHE 520 Public Health Data Analysis (3 hours)
- PBHE 530 Epidemiology (3 hours)
- PBHE 550 Research and Evaluation Methods (3 hours)
- PBHE 540 Public Health Policy and Administration (3 hours)
- PBHE 580 Public Health Interventions (3 hours)

In addition, students in the concurrent PharmD/MPH program would not be required to take PHEP 751 Essentials of Research Application (1 hour), as PBHE 550 Research and Evaluation Methods (3 hours) would address the required outcomes of PHEP 751. In order to fulfill the requirement of PHEP 751, successful completion of PBHE 550 prior to APPE is required.

Students in the concurrent program will also be required to focus the ImPaCT project on public health.

Progression and Retention
Students accepted into the concurrent program will need to maintain a cumulative GPA of 3.0 or higher in graduate courses. In addition, students will need to earn a grade of B or above in the required MPH courses and MPH-approved electives. Students must also successfully complete the capstone with a satisfactory grade.

Students placed on pharmacy academic probation will be required to pause their concurrent degree studies until they successfully remediate pharmacy courses and return to non-probation status.

Students who fail to meet the master's progression criteria must meet with the master's program director to discuss a retention and remediation plan. The School of Pharmacy will also be involved in the discussion of the progression status of the concurrent degree studies. Based on the timeline, students may be unable to complete the concurrent degree.

Degree Available at SIUE

- Doctor of Pharmacy/Master of Public Health

Graduation Requirements

The capstone/ImPaCT project must be public health focused and will be used to fulfill the exit requirement for both the PharmD and MPH programs. The project must be approved by the MPH program director.

A student who is unable to successfully complete at least four of the following courses would be required to complete courses to fulfill the elective requirements for the PharmD:

- PBHE 500
- PBHE 520
- PBHE 530
- PBHE 540
- PBHE 550
- PBHE 580

It is possible that a delay in obtaining the PharmD could occur if the student discontinues the concurrent program. Continuation toward the MPH would be approved on a case-by-case basis by the MPH program director if a student discontinues the PharmD program.

Psychology

Application Requirements

- Graduate School application, including program questions, and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA of 2.50
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Three letters of recommendation
- A statement of purpose describing your relevant experiences, future professional goals, and interest in the CCS program.
- Resume/CV

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Completing an undergraduate major or minor in psychology is the desirable and typical undergraduate preparation for a graduate degree in psychology. Qualified applicants from other academic backgrounds may enter the psychology graduate program provided they have completed the prerequisites. In addition to completing at least one course each in introductory psychology, research methods/experimental psychology, and statistics, applicants to the clinical child and school psychology program must also complete at least one course in child psychology/development or adolescent psychology/development, abnormal psychology/psychopathology, and psychological tests and measurements. Applicants may be accepted if they are missing one or two prerequisites provided they complete these prerequisites prior to beginning the graduate program.

Review the SIUE Admissions Policy for more information.

Application Deadline

New students are admitted exclusively in the fall semester (which begins in late August). All application materials are due no later than **January 15**. Please note that applications will be reviewed following the deadline.

Required Credit Hours/Tuition and Fees

- 40
- Visit the Paying for College website for detailed tuition information

Curriculum

The Master of Science in psychology with a specialization in clinical child and school psychology requires 40 semester hours for completion.

Clinical Child and School Specialization:

- **Required Courses (30 hours):** PSYC 514, 520, 521, 537a, 541a, 543a, 553, 556, 594, 565
- **Required practicum (7 hours):** PSYC 524
- **Thesis (3 hours):** PSYC 599, or Research Project (3 hours): PSYC 598

Degrees Available at SIUE

- Master of Science in Clinical Child and School Psychology
- Specialist in School Psychology

Graduation Requirements

Candidates for the master of science (MS) must submit a thesis proposal for approval by a thesis advisory committee, carry out the proposed thesis, submit a written report and complete an oral examination. MS candidates intending to pursue the Specialist Degree may choose to complete an acceptable research paper rather than a thesis.

Candidates for the Specialist Degree must submit a thesis proposal for approval by a thesis advisory committee, carry out the proposed thesis, submit a written report, and complete an oral examination.

Review the graduation policy for more information.

Application Requirements

- Graduate School application, including program questions, and $40 fee
- Submission of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA 2.50
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Three letters of recommendation
- Goal Statement/Statement of Purpose
- Resume/CV
- Optional: Graduate Record Examination (GRE) scores: verbal, quantitative and writing areas

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Completing an undergraduate major or minor in psychology is the desirable and typical undergraduate preparation for a graduate degree in psychology. Qualified applicants from other academic backgrounds may be considered for the psychology graduate program provided they have completed the prerequisites. In addition to completing at least one course each in introductory psychology, research methods/experimental psychology and statistics, applicants to the clinical psychology program must also complete at least one course in abnormal psychology/psychopathology and physiological psychology/biopsychology.

Review the SIUE Admissions Policy for more information.

Application Deadline

New students are admitted exclusively in the fall semester (which begins in late August). All application materials are due no later than **January 15**. Please note that applications will be reviewed following the deadline.

Required Credit Hours/Tuition and Fees

- 42
- Visit the Paying for College website for detailed tuition information

Curriculum

The Master of Arts program requires 42 semester hours of graduate credit to complete the specialization in clinical psychology:

- **Required courses (27 hours)**
  - PSYC 514-Advanced Biopsychology
  - PSYC 520-Research Design & Inference I
  - PSYC 521-Research Design & Inference II
  - PSYC 531-Advanced Psychopathology
  - PSYC 535-Cognitive Behavioral Psychotherapy
  - PSYC 537B-Counseling and Psychotherapy of the Adult
  - PSYC 538-Group Counseling and Psychotherapy
  - PSYC 541B-Cognitive Assessment of the Adult
  - PSYC 543B-Personality Assessment of the Adult
- **Required practicum (6 hours)**
  - PSYC 523-Practicum in Clinical Psychology
- **Electives (6 hours)**
  - PSYC 507-Multicultural Counseling and Psychotherapy
  - PSYC 550-Ethics and Professional Issues in Psychology
- **Thesis (3 hours)**
  - PSYC 599-Thesis

Degrees Available at SIUE

- Master of Arts in Clinical Psychology

Graduation Requirements

Candidates for the Master of Arts must submit a thesis proposal for approval by a thesis advisory committee, carry out the proposed thesis, submit a written report and complete an oral examination.

Review the graduation policy for more information.

Application Requirements

- Graduate School application, including program questions, and $40 fee

- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA 2.50
- Graduate Record Examination (GRE) scores; verbal, quantitative and writing areas - optional but highly recommended. Applicants who submit GRE scores will be given first priority for assistantship offers.
- Three letters of recommendation
- Goal Statement/Statement of purpose
- Resume/CV

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Completing an undergraduate major or minor in psychology is the desirable and typical undergraduate preparation for a graduate degree in psychology. Qualified applicants from other academic backgrounds may enter the psychology graduate program provided they have completed the prerequisites. In addition to completing at least one course each in introductory psychology, research methods/experimental psychology and statistics, applicants to the industrial-organizational psychology program must also complete at least one course in introduction to industrial/organizational psychology and psychological tests and measurements. Applicants may be accepted if they are missing one or two prerequisites provided they complete these prerequisites prior to beginning the graduate program.

Review the SIUE Admissions Policy for more information.

Application Deadline

New students are admitted exclusively in the fall semester (which begins in late August). All application materials are due no later than **January 15**. Please note that applications will be reviewed following the deadline.

Required Credit Hours/Tuition and Fees

- 36
- Visit the Paying for College website for detailed tuition information

Curriculum

The industrial-organizational specialization provides knowledge and skills to analyze and solve problems of motivation, leadership, communication, job satisfaction, productivity, training, and others faced by business and organizations. Training in this specialization leads to possible employment in administration, supervision, organizational development, and personnel positions.

The Master of Arts program requires 36 semester hours of graduate credit to complete the specialization in industrial-organizational psychology.

Industrial-Organizational Specialization:

Required courses (30 hours):

- PSYC 520, 521, 571, 572, 573, 574, 575, 576, 580 (27 hours)
- One course selected from a 400- or higher-level management course approved by your advisor (3 hours)

Exit Requirement (3 hours):

- PSYC 525 (Practicum) OR PSYC 599 (Thesis) (3 hours)

Elective Requirement (3 hours)

- One elective course (3 hours)

Regardless of whether students choose to complete a Practicum or Thesis, the program strongly encourages and advises all students to use their elective course for additional practicum experience.

Degrees Available at SIUE

- Master of Arts

Graduation Requirements

Candidates for the master of arts have two possible tracks for meeting graduation requirements.

1. **Applied Track.** In conjunction with course requirements, students must secure a practicum position with the assistance of program faculty, complete the practicum experience (PSYC 525), submit a written report, and complete an oral presentation.

2. **Academic Track.** In conjunction with course requirements, students must submit a thesis proposal for approval by a thesis advisory committee, carry out the proposed thesis (PSYC 599), submit a written report, and complete an oral examination.

Review the graduation policy for more information.

Admission Requirements

- Graduate School Application
- **Internal Applicants Only**

Applicants for the specialist in school psychology must have a grade of C or higher in all courses in the SIUE master's in clinical child and school psychology program, and must have also earned a cumulative GPA of 3.0 or higher in that program. Applicants who wish to gain a specialist in school psychology degree should first complete the Master of Science in clinical child and school psychology. It should be noted that the school psychology track of the Master of Science and the specialist in school psychology together typically only take three years to complete, which is a similar amount of time compared to other school psychology degree programs.

Application Deadline

New students are admitted exclusively in the spring semester. All application materials are due no later than **October 1st**.

Required Credit Hours/Tuition and Fees

- 32
- Visit the Paying for College website for detailed tuition information

Coursework

The specialist degree in school psychology requires a minimum of 32 hours beyond the Master of Science (MS)

- Required Courses (15 hours): PSYC 539, 544, 545, 584, 585
- Required Practicum (4 hours): PSYC 524
- Internship (10 hours): PSYC 596
- Thesis (3 hours): PSYC 599

Degrees Available at SIUE

- Specialist in School Psychology

Graduation Requirements

Candidates for the specialist degree must submit a thesis proposal for approval by a thesis advisory committee, carry out the proposed thesis, submit a written report, complete an oral examination and have a minimum GPA of 3.0.

Review the graduation policy for more information.

Public Administration

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Unconditional admission to the program requires an overall undergraduate GPA of at least 2.7 on a 4.0 scale, or a GPA of 3.0 for the last two years.
- Applicants with an overall undergraduate GPA between 2.5 and 2.7 may be required to take a test administered by the Department of Public Administration to evaluate their writing and analytical skills. Based on the results of this test, the program director may require students to submit scores from standardized examinations such as Graduate Record Exam (GRE), Graduate Management Admission Test (GMAT), or Miller Analogies Test (MAT); and/or resumes summarizing their work experience over the last 10 years.
- Applicants who are denied admission may request a review of their credentials by the department's Student Appeals Committee.
- An undergraduate background in the social sciences or business administration is useful, but not required.

This is a fully online program. International students cannot receive a visa to study in the U.S. for this program. Students are not eligible to enroll in this program from outside of the U.S.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admissions Policy for more information.

Required Credit Hours/Tuition and Fees

- 39
- Visit the Paying for College website for detailed tuition information

Curriculum

The MPA requires the completion of at least 39 semester hours with a GPA of 3.0 or higher distributed as follows:

Required core courses (21 hours) with a minimum of 3.0 GPA in core coursework:

PAPA 420: Quantitative Analysis

PAPA 500: Fundamentals of Public and Nonprofit Administration

PAPA 501: Public Organizations

PAPA 510: E-Government and Cybersecurity

PAPA 530: Public Budgeting

PAPA 540: Public and Nonprofit Human Resource Administration

PAPA 550: Public Policy: Context, Process, & Analysis

Area of emphasis courses (18 hours): Chosen from an approved list of public administration courses in areas such as general administration, public management, nonprofit management, human resource administration, safety and security, and leadership.

Unclassified graduate students may take PAPA courses only with the permission of either the department chair or the MPA program director.

Degrees Available at SIUE

- Master of Public Administration

Please note that international students are ineligible to receive a student visa for this program.

Post-Baccalaureate Certificate

- Professional Leadership Strategies

Combined Degree

- Accelerated Combined BA or BS in Political Science and Master of Public Administration

Graduation Requirements

Students must receive a passing grade on a comprehensive exit examination. To sit for the examination, students must have a GPA of 3.0 in the MPA core courses and program overall. Students must also submit two papers written during their coursework as evidence of their writing skills prior to taking the comprehensive examination. Students must complete the MPA program with a GPA of 3.0 in the core courses and in the MPA program overall.

Review the graduation policy for more information.

Public Health MBA

Admission Requirements

- Graduate School application and $40 fee
  - A separate application must be submitted for both the MPH and MBA programs, indicating on the second application that the desire is to add a program. If applications for both programs are submitted for the same term, only one $40 application fee is required.
- Submission of all postsecondary academic transcripts
- A cumulative master's GPA of 3.0 (A=4.0) or higher
- Personal statement describing how the program relates to professional goals (500-800 words)
- Current resume
- Completion of all MBA admission requirements
- International Applicants: Proof of English proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent

Applicants who have significant public health work experience are encouraged to apply. Work experience will be evaluated as a part of the admission package. Scores from the Graduate Record Examination (GRE) are recommended, but not required.

Competitive applicants are students with an undergraduate degree in:

- Public Health
- Community Health
- Exercise Science
- Health Education
- Psychology
- Nursing
- Nutrition
- Sociology
- Social Work

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Application Deadline

The priority application deadline is March 1 for fall applicants. Additionally, students may apply for dual degrees, both an MBA and an MPH, with an additional application submitted to the School of Business and a request to waive the GMAT/GRE exam.

Required Credit Hours/Tuition and Fees

- 57
- Visit the Paying for College website for detailed tuition information

Program of Study

The MPH is 33 credit hours, with six of those credit hours focused on the final project. The MBA is 36 credit hours, and four of the MPH courses are considered electives in the MBA program, for a combined total of 57 hours. MBA courses are offered in online, seven-week flexible options and hybrid seven-week options. MPH courses are offered in a hybrid or online format with meetings once per week in the evening to accommodate working professionals.

Sample Full-Time Two-Year Course Plan

Year 1 (Fall Semester)

PBHE 500 Core Principles in Public Health and Public Health Leadership
PBHE 520 Public Health Data Analysis
PBHE 580 Public Health Interventions
MBA 522 Decision Making in Organizations
MBA 521 Quantitative Analysis

Year 1 (Spring Semester)

PBHE 530 Epidemiology
PBHE 550 Research and Evaluation Methods
PBHE 570 Environmental Health
CMIS 526 Information Systems and Technology
MKTG 525 Marketing Analysis and Applications for Managerial Decision Making

Year 1 (Summer Semester)

PBHE 560 Applied Practice Experience
ACCT 524 Accounting for MBAs

Year 2 (Fall Semester)

PBHE 540 Public Health Policy and Administration
PBHE 598 Grantwriting
PBHE 599A/B* Capstone - Semester 1
FIN 527 Corporate Finance
ECON 528 Managerial Economics

Year 2 (Spring Semester)

PBHE 599A/B* Capstone - Semester 2
MBA 534 Strategic Management

*Students completing a **capstone project** will enroll in PBHE 599A for fall-spring in their final year (three credit hours per semester, six credit hours total). Students completing a **capstone thesis** will enroll in PBHE 599B for fall-spring for their final year (three credit hours per semester, six credit hours total).

Sample Part-Time Three-Year Course Plan

Year 1 (Fall Semester)

PBHE 500 Core Principles in Public Health and Public Health Leadership
PBHE 520 Public Health Data Analysis
MBA 521 Quantitative Analysis

Year 1 (Spring Semester)

PBHE 550 Research and Evaluation Methods
PBHE 530 Epidemiology
MBA 522 Decision Making in Organizations

Year 1 (Summer Semester)

ACCT 524 Accounting for MBAs

Year 2 (Fall Semester)

PBHE 580 Public Health Interventions
PBHE 540 Public Health Policy and Administration
MKTG 525 Marketing Analysis and Applications for Managerial Decision Making

Year 2 (Spring Semester)

PBHE 570 Environmental Health
FIN 527 Corporate Finance

Year 2 (Summer Semester)

PBHE 560 Applied Practice Experience
CMIS 526 Information Systems and Technology

Year 3 (Fall Semester)

PBHE 598 Grant Writing
PBHE 599A/B* Capstone - Semester 1
ECON 528 Managerial Economics

Year 3 (Spring Semester)

PBHE 599A/B* Capstone - Semester 2
MBA 534 Strategic Management

*Students completing a **capstone project** will enroll in PBHE 599A for fall-spring in their final year (three credit hours per semester, six credit hours total). Students completing a **capstone thesis** will enroll in PBHE 599B for fall-spring for their final year (three credit hours per semester, six credit hours total).

Degrees Available at SIUE

- Master of Business Administration (MBA) and Master of Public Health (MPH)

Graduation Requirements

In addition to completing the coursework, students must also satisfy a comprehensive examination requirement by earning a grade of B or above in MBA 534. Students who earn a grade below B will be given a second opportunity to complete the course in a satisfactory manner. Performance of individuals who fail to earn a B or above in the second attempt will be reviewed by two additional members of the School of Business Curriculum Committee who may recommend that the student be dropped from the program or, in rare instances, be permitted a third attempt to earn a grade of B or above under another instructor.

In addition to successful completion of the program of study, students are required to complete a capstone project in their second year within the six

credit hour capstone course, PBHE 599. Students may choose to complete a thesis as the capstone project, but a thesis is not required.

The capstone project is a community-based project that will incorporate the material learned throughout the program. Students will work with an approved community partner to design, develop, implement and/or evaluate a project that emphasizes one or more of the public health core competencies and demonstrates relevant leadership skills. Students must successfully complete the capstone with a satisfactory grade.

Public Health

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Minimum GPA of 3.0
- Personal statement describing how the program relates to professional goals (500-800 words)
- Current resume
  - Applicants who have significant public health work experience are encouraged to apply. Work experience will be evaluated as a part of the admission package.
- Scores from the Graduate Record Examination (GRE) are recommended, but not required
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent. *Please note this program is not designated as a STEM field for OPT purposes.*
- Competitive applicants are students with an undergraduate degree in:
  - Public Health
  - Community Health
  - Exercise Science
  - Health Education
  - Psychology
  - Nursing
  - Nutrition
  - Pharmacy
  - Sociology
  - Social Work

Application Deadline

The application deadline for the following fall admission is March 1. Please note that applications will be reviewed following the deadline.

Also Available
Accelerated Online Master of Public Health

Required Credit Hours/Tuition and Fees

- 42
- Visit the Paying for College website for detailed tuition information

Program of Study

The Master of Public Health requires a minimum of 42 semester hours. Students will be required to complete 33 hours of public health core courses and nine hours of leadership-focused electives. Of the 42 semester hours required, at least 28 hours must be completed at SIUE.

In order to remain in good standing, students must maintain a GPA of 3.0 or higher and earn a grade of B or better in all required core courses. Students must successfully complete the capstone courses with a Satisfactory grade.

Required courses (33 hours):

PBHE 500 Core Principles in Public Health & Public Health Leadership (3)
PBHE 520 Public Health Data Analysis (3)
PBHE 530 Epidemiology (3)
PBHE 540 Public Health Policy and Administration (3)
PBHE 550 Research & Evaluation Methods (3)
PBHE 560 Applied Program Planning (3)
PBHE 570 Environmental Health (3)
PBHE 580 Public Health Interventions (3)
PBHE 598 Grantwriting (3)
PBHE 599A Capstone Project (6) *OR* **PBHE 599B** Capstone Thesis (6)

Approved Electives

Choose nine hours from the following:

ACCT 524 Accounting for MBAs (3)
ACS 530 Survey of Health Communication Theory & Practice (3)
ACS 540 Survey of Organizational Communication Research (3)
CI 510A Analysis of Instruction (3)
CI 556 Classroom Learning Environment (3)
CI 581 Foundations of Teacher Leadership (3)
CI 583 Leadership in Professional Development (3)
CIED 460 Identity and Bias (3)
CJ 517 Policy Analysis (3)
CJ 529 Human Trafficking (3)
ECON 528 Managerial Economics (3)
ECON 532 Health Economics and Policy (3)
EPFR 521 Analysis of Educational Issues (3)
FIN 544 Health Care Financial Management (3)

GEOG 404 Medical Geography (3)
GEOG 418 Geographic Information Systems (3)
GEOG 454 Topics in Geographic Techniques (3)
HESA 503 Research Methods in Higher Education (3)
HESA 504 Foundations of Higher Education (3)
HESA 506 Assessment and Evaluation in Student Affairs (3)
HESA 514 College Student Learning and Development (3)
HESA 516 Leadership Theory and Practice in Higher Education (3)
HESA 522 Diversity in Higher Education (3)
HESA 524 Legal and Ethical Issues in Student Affairs (3)
HESA 574 Introduction to Student Affairs (3)
IT 435 Producing Instructional Materials (3)
IT 481 Computers in Education: Theory and Practice (3)
IT 550 Emerging Technologies in Education (3)
IT 562 Social Media for Teachers (3)
IT 563 Games and Simulations (3)
MBA 521 Quantitative Analysis (3)
MBA 522 Decision Making in Organizations (3)
MBA 531 External Environment of Business (3)
MBA 533 Leadership Influence & Managerial Influence (3)
MGMT 541 Healthcare Law (3)
MGMT 551 Managing Organizational Change and Innovation (3)
MGMT 595 Seminar in Management (3)
MKTG 525 Marketing Analysis and Applications for Managerial Decision Making (3)
MKTG 545 Health Care Marketing (3)
NURS 510 Healthcare Informatics (3)
NURS 511 Social, Ethical and Legal Issues in the Information Age (3)
NURS 591 Organization and Systems Leadership (3)
PAPA 501 Public Organizations (3)
PAPA 530 Public Budgeting (3)
PAPA 550 Public Policy (3)
PAPA 555 Seminar and Issues (3)
PAPA 566 Health Care Financing (3)
PAPA 567 Topics in Healthcare (3)
PAPA 561 Application of Biostatistics and Epidemiology Principles to Health Care (3)
PAPA 576 Strategic Planning (3)
PAPA 577 Needs Assessment and Strategic Marketing (3)
PAPA 580 Development of Public and Nonprofit Leadership Skills (3)
PAPA 599 Seminar in Public Administration (3)
SOC 431 Employment & Workplace Change (3)

Degree Available at SIUE

- Master of Public Health

Concurrent Degree Options

- Master of Public Health / Master of Business Administration
- Master of Public Health / Doctor of Pharmacy

Graduation Requirements

In addition to successful completion of the program of study, students are required to complete a capstone project in their second year within the six credit hour capstone course, PBHE 599, with a Satisfactory grade. Students may choose to complete a project (PBHE 599A) or a thesis (PBHE 599B) to complete the capstone requirement.

The capstone project is a community-based project that will incorporate the material learned throughout the program. Students will work with an approved community partner to design, develop, implement and/or evaluate a project that emphasizes one or more of the public health core competencies and demonstrates relevant leadership skills.

Social Work

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Overall GPA of at least 3.0 (A=4.0). Students with less than a 3.0 undergraduate GPA may apply and will be considered on a case-by-case basis.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- Statement of Purpose that addresses the following:
  - What has led you to pursue a master's degree in social work at this time?
  - Describe your understanding of a social justice issue.
  - To earn the MSW degree at SIUE, each student must complete at least 450 field practicum hours per year with a department identified agency. It is highly unlikely that students will be able to use their place of employment for their practicum. The courses in the MSW program are likely to be scheduled for afternoon and evening hours, and practicum hours are likely to be scheduled for daytime business hours (Monday-Friday, 8am-5pm). Afternoon or evening courses may require you to participate in community-engaged activities during daytime business hours. Taking this information into consideration, please describe your plan to accommodate all of these required expectations of the MSW program.
  - If your cumulative GPA is below 3.0, it is recommended that you address this in your statement and discuss how you will improve your academic performance to succeed in the MSW program.
- Two letters of recommendation that discuss the applicant's potential for graduate level academic work, leadership and interpersonal skills, commitment to the mission and values of social work, and, if relevant, professional experience and capabilities. One letter must be from a current or past instructor and one must be from a supervisor, preferably in a volunteer or paid social service setting. BSW graduates who do not have practice experience after receiving their BSW, should have their field practicum supervisor write their recommendation. Applicants applying as transfer students from CSWE-accredited master's programs should request at least one letter of recommendation from a graduate faculty member. Generally, letters from friends and family members will not be considered unless that individual has served in the capacity of supervisor or instructor. If an applicant is unable to secure a letter from a current/previous instructor and/or supervisor, please contact the MSW Admissions Committee at MSWProgram@siue.edu for guidance. Any deviation from the instructor and supervisor letters indicated here should be addressed in the applicant's statement of purpose. The letters of recommendation must be submitted on the form contained in the application packet.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

The baccalaureate degree should reflect a strong background in liberal arts and sciences with at least 30 semester hours (or equivalent) earned in liberal arts and sciences. Students must complete any deficiencies prior to enrollment in the MSW Program. If any deficiencies are not completed prior to enrollment, the student's file will be reconsidered the next academic year. In addition, advanced standing students entering with a BSW from a CSWE-accredited program must have completed an undergraduate research methods course and an undergraduate statistics course with a grade of B or better. Advanced standing students who have not completed a course in research methods with a grade of C or better must complete these requirements prior to enrollment in the MSW program, or their file will be reconsidered the next academic year, or the student may be offered admission in regular standing. Undergraduates who are nearing completion of a baccalaureate degree

may submit an application for admission as a degree-seeking student when they have earned at least 88 semester hours of credit toward the undergraduate degree with a GPA of at least 3.0 (A=4.0).

A combination of commitment to the program's mission and sensitivity to diversity is evaluated during the admission process through the applicant's personal statement and letters of reference. These are regarded as factors in admission decisions, along with records of undergraduate work. Students will not receive academic credit for life experiences or previous work experiences.

Review the SIUE Admissions Policy for more information.

Admission in Advanced Standing

Applicants may be considered for admission in advanced standing provided the following criteria are met:

1. The applicant holds a baccalaureate degree in social work from an institution accredited by the Council of Social Work Education, and the degree was awarded in the seven-year period preceding application for graduate study at SIUE.
2. The applicant's GPA is 3.0 (A=4.0) or higher in undergraduate study and the applicant has completed all courses in the BSW foundation area with grades of C or better. Applicants with less than a 3.0 undergraduate GPA who completed all coursework in the baccalaureate foundation area with grades of C or better will be considered on a case-by-case basis.
3. Advanced standing students entering with a BSW from an accredited undergraduate program must have completed an undergraduate research methods course with a grade of C or better.
4. Students must complete any degree program deficiencies identified by the admissions committee prior to enrollment in specialized MSW courses. If the student is unable to satisfy deficiencies program acceptance may be rescinded.

Social Work Admissions Committee

The MSW Program Committee will review the complete packet of application materials including the applications for graduate study, personal statement, letters of recommendation, and transcripts. Admission to graduate study in social work will be based on a full evaluation of the completed application packet. A personal interview may be required. The committee cannot admit students whose packet is incomplete. The applicant will be notified in writing about the decision of the Committee.

Application Deadline

The priority application deadline for the following fall admission is February 1st. Please note that applications will be reviewed following the deadline. Applications may be accepted beyond the priority deadline until the cohort is full.

Required Credit Hours/Tuition and Fees

- Regular Standing: 60
- Advanced Standing: 30
- Visit the Paying for College website for detailed tuition information

Curriculum

The Department of Social Work offers a curriculum leading to the master of social work (MSW) with a focus on advanced generalist practice. The program at SIUE is accredited by the Council of Social Work Education (CSWE).

The program of study in the MSW program is divided into two consecutive groups of courses: Generalist and Specialized Curricula. Generalist courses provide intro-level knowledge on social work history, theoretical framing, values, ethics, basic skills, and practice orientations. The specialized courses focus on more advanced theoretical application, practice skills, policy analysis, and evaluation.

For students who have regular-standing status, the MSW Program includes both Generalist and Specialized Curricula. This requires a two-year, full-time course of study in which students enroll in six consecutive semesters, including summer terms, for a total of 60 credit hours. There is a regular-standing part-time option, which takes four years.

Students who have completed a BSW degree from a CSWE accredited program within the past seven years qualify for advanced standing status. Advanced standing students are only required to complete the Specialized Curriculum. This requires a one-year, full-time course of study in which students enroll in three consecutive semesters, including one summer term, for a total of 30 credit hours. Part-time advance standing students can finish in two years.

Social work students do not receive academic credit for life experience or previous work experience.

Courses may be offered in traditional on campus face-to-face and hybrid online format. Courses offered in hybrid online include a combination of on-campus and off-campus online class content.

Upon graduation, MSW students are eligible to take licensure exams for a social work practice license. Requirements vary by state. The Licensed Clinical Social Worker (LCSW) requirements typically include 3,000 hours of supervised clinical practice after completion of the MSW degree.

Foundation Courses-30 hours

SOCW 501 - Generalist Practice: Individuals and Families (3)
SOCW 502 - Generalist Practice with Organizations, and Communities (3)
SOCW 503 - Counseling Skills Development (3)
SOCW 504 - Social Welfare Policy (3)
SOCW 505 - Generalist Practice with Groups (3)
SOCW 506 - Research Methods and Data Analysis (3)
SOCW 507 - Human Behavior in the Social Environment (3)
SOCW 508 - Diversity, Values, Ethics, and Social Justice Principles & Practice (3)
SOCW 526 - Field Instruction I (3)
and
SOCW 527 - Field Instruction II (3)
or
SOCW 531 - Block Field Instruction I (6)

Concentration Courses (30 hours)

SOCW 550 - Advanced Micro Practice (3)
SOCW 551 – Advanced Policy (3)
SOCW 552 - Advanced Macro Practice (3)
SOCW 546 - Applied Social Science Research (3)
SOCW 528 - Advanced Field Instruction III (3)
and
SOCW 529 - Advanced Field Instruction IV (3)
or
SOCW 532 - Block Field Instruction II (6)
SOCW 565 - Capstone (3)

Additionally, students are also required to take three elective courses (9 hours). One elective can be from outside of the Department of Social Work with permission from the MSW Committee.

Degrees Available at SIUE

- Master of Social Work (MSW)

Graduation Requirements

Enrollment in SOCW 565 - Capstone is a requirement to satisfy the concluding element of the MSW degree program. Students will earn a pass/fail grade for SOCW 565. A passing grade must be earned in this course for the student to satisfactorily complete all requirements for the Master of Social Work. The capstone project requires students to integrate the social work knowledge, skills, values, and cognitive and affective processes learned and demonstrated across curriculum content areas and their field practicum experience.

In SOCW 565, the student selects case scenarios from their field practicum experience and presents the practice activities they engaged in during their experience. Students discuss how the practice activities they engaged in demonstrate their competency across ethics, diversity, human rights, research, policy practice, engagement, assessment, intervention, and evaluation. For each competency area, students must explain how they used social work knowledge, skills, values, and cognitive and affective processing to gain mastery of the desired behaviors for social work practice.

Review the graduation policy for more information.

Speech Language Pathology

Admission Requirements

1. Minimum cumulative 3.0 GPA (A=4.0)
2. Resume information will be collected from the information provided in the experiences portion of the CSDCAS application. A separate resume is not required.
3. Supplemental Materials: Videos of applicants responding to a prompt or series of questions. More information about Supplemental Materials can be found here.
4. Three letters of recommendation. At least one of the letters of recommendation must come from program faculty. We strongly encourage multiple letters of recommendation from program faculty.
5. Transcripts from all schools attended. All official transcripts MUST be sent to CSDCAS at: CSDCAS Verification Department, P.O. Box 9113, Watertown, MA 02471. If currently enrolled, fall transcripts with most recent (fall) grades posted must be submitted to CSDCAS for application to be completed. In addition, each applicant must complete an academic update to enter their fall grades and allow verification by CSDCAS. Applications will not be considered without CSDCAS verification of these fall grades. It is the student's responsibility to refer to the CSDCAS procedure for proper and timely submission of transcripts and academic updates.
6. International Students: If English is not the applicant's native language, he or she must demonstrate native or near-native ability in spoken English. The applicant must take and submit official test scores for either the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). A minimum TOEFL iBT score of 100 or IELTS score of 7 is required to be considered for admission to our master's program.

   TOEFL scores should be sent directly to CSDCAS using code C122; CSDCAS does not accept IELTS scores; therefore, your official IELTS scores should be sent directly from the testing service to our program:
   Speech-Language Pathology Graduate Program
   Southern Illinois University Edwardsville
   Campus Box 1147
   Edwardsville, IL 62026-1147

Applicants who do not meet the above minimum GPA standards but have extenuating circumstances that interfered with academic progress may submit a statement with their application that provides an explanation of those circumstances.

Application Deadline

The application deadline for the graduate program is January 15 for the following fall semester. This deadline corresponds to the CSDCAS designation of E-submit. It is the applicant's responsibility to ensure that the application is E-submitted by January 15 and that all materials have been submitted (subsequently qualifying the application as Complete) by February 1. Incomplete applications will not be reviewed.

Admission decisions are typically completed during the first part of March.

How to Apply

All transcripts, letters of recommendation and supplemental materials are to be submitted through the Centralized Application Service (CSDCAS). We encourage students to read the CSDCAS Application Instructions before submitting their application.

Academic Advising Information

Students admitted to the program are assigned a faculty advisor who will assist them with their program and registration.

Graduate Assistantships

- Campus-wide Assistantships: For more information about assistantships across campus.
- Speech-Language Pathology Assistantships: For more information about assistantships available within the program.

Additional Requirements and Information

- Prerequisite Requirements
- ISBE Requirements
- Application FAQs

Required Credit Hours/Tuition and Fees

- 36 hours (academic) and 24 hours (clinical)
- Visit the Paying for College website for detailed tuition information

Curriculum

The program is completed entirely on the Edwardsville campus and surrounding area (externship).

Thirty-six semester hours of acceptable graduate credit are required to complete the Master of Science in speech-language pathology. These hours include:

Academic core courses (36 hours): SPPA 503, 540, 541, 542, 543, 544, 545, 547, 548, 550, 558, 560

- Option 1 (culminating portfolio): 11 core courses and a culminating portfolio, or
- Option 2 (thesis): 10 core courses (all *except* SPPA 503), six thesis credits (SPPA 599) and a culminating thesis

Students must also complete an average of 22-27 semester hours of on- and off-campus clinical experiences to meet certification and licensure requirements. Students are able to complete the program in five consecutive, full-time semesters. Students should refer to their individual plans of study for more information.

Students receiving more than two C's or any one grade below a C will be dismissed from the program.

Curriculum

Year 1 (Fall Semester)

SPPA 541 Advanced Seminar in Child Speech Sound Disorders
SPPA 503 Research Methods
SPPA 540 Child Language Disorders: Birth to Five
SPPA 549a Graduate Practicum in Speech-Language Pathology

Year 1 (Spring Semester)

SPPA 542 Seminar in Voice Disorders
SPPA 545 Acquired Communication Disorders in Adults
SPPA 544 Child Language Disorders in School-Aged Children
SPPA 549a Graduate Practicum in Speech-Language Pathology

Year 2 (Summer Semester)

SPPA 548 Dysphagia
SPPA 550 Culturally Responsive Professional Practice
SPPA 549a Graduate Practicum in Speech-Language Pathology

Year 2 (Fall Semester)

SPPA 543 Fluency Disorders
SPPA 547 Motor Speech Disorders
SPPA 558 Advanced Course in Augmentative and Alternative Communication
SPPA 549b Graduate Practicum in Speech-Language Pathology (School)

Year 2 (Spring Semester)

SPPA 560 Professional Issues in Speech-Language Pathology
SPPA 549c Graduate Practicum in Speech-Language Pathology (Adult)
SPPA 549d Graduate Practicum in Speech-Language Pathology
Portfolio Presentation

Students interested in completing the program on a part-time basis should reach out to the Graduate Program Director for more information.

Retention Policy

Retention/Dismissal: Students must achieve grades of C or higher in all coursework (academic and clinical). Students who receive three or more C's, or a grade of D or lower in any coursework will be dismissed from the program.

Degrees Available at SIUE

- Master of Science in Speech-Language Pathology

The SIUE graduate program in speech-language pathology is accredited by the Council of Academic

Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association.

Certification and Licensure: Upon graduation, students are eligible to apply for a Professional Educator License in the State of Illinois, Illinois license to practice Speech-Language Pathology, and ASHA certification following successful completion of the clinical fellowship year. Learn more about professional licensure and certification.

Graduation Requirements

Students must successfully complete all academic and clinical requirements and a thesis defense or culminating portfolio.

Review the graduation policy for more information.

Prerequisite Requirements

Students must be working toward a bachelor's degree in speech-language pathology or completion of undergraduate coursework in speech-language pathology and audiology. Prerequisite coursework must include both general and specific content.

General required content (individual courses): statistics, biological sciences, physical sciences, and social/behavioral sciences. A description of these courses can be found here.

SLP required content (may not be individual course): normal language development, anatomy/physiology, phonetics, neuroanatomy/physiology, speech/hearing science, basic audiometry, aural rehabilitation

SLP recommended content (may not be individual course): clinical procedures/methods, speech-sound disorders, language disorders

More specifically, applicants must have completed at least four SLP-specific courses at the time of application or they will not be considered for admission. We recommend that all delinquent prerequisite coursework be completed by the summer prior to starting the graduate program, or it may be integrated into their program of study, which may add time to their program.
Students interested in completing prerequisite requirements at SIUE are directed to our undergraduate leveling plan.

Teaching

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Minimum GPA of 2.50 for the last two years of the bachelor's degree program
- Work history that lists current or past employment in an educational setting
- For all secondary education licensure areas, a total of 18 credit hours completed in the the content area related to the desired license is required

For the Special Education (LBS1) licensure, students must be able to work in a classroom for semesters four and five either as an employee or volunteer. For all other licensure areas, students should be currently working in a classroom that corresponds to their desired licensure area.

Please contact the Graduate Admissions Office with questions regarding the application submission process at graduateadmissions@siue.edu.

Application Deadline

The application deadline is May 1st to begin in the summer semester.

Required Credit Hours/Tuition and Fees

- 39
- Visit the Paying for College website for detailed tuition information

Program of Study

The Master of Arts in Teaching will lead to an Illinois Professional Educator License (PEL). The student will be eligible for thePEL/LBS1 after five semesters (36 hours, 18 months) and the PEL/elementary education or PEL/secondary education after three semesters (36 credit hours, 12 months). Students must maintain a minimum GPA of 3.0.

Required Courses (39 hours) for the Professional Educator License in Learning Behavior Specialist (LBS1) :

SPE 502 Characteristics of Individuals with Disabilities (3)
SPE 522 Instructional Methods for Students with Mild/Moderate Disabilities (3)
SPE 430A Classroom Management and Behavior Support in Special Education (3)
SPE 417A Introductory Reading and Language Arts Methods in Special Education (3)
SPE 523 Instructional Methods for Students with Severe Disabilities (3)
SPE 417B Advanced Reading and Language Arts Methods in Special Education (3)
SPE 540 Behavior Issues and the Learning Environment (3)
SPE 578-001 Field Study (3)
SPE 421 Mathematics Methods in SPE (3)
SPE 511 Individual Educational Assessment (3)
SPE 578-002 Field Study (3)
SPE 481 Senior Seminar (3)
SPE 595 Action Research (3)

Required Courses (39 hours) for the Accelerated Pathway to Professional Educator License in Elementary or Secondary Education:

CI 557 Teaching in Elementary/Middle/Secondary Schools (12)
CI 558 Teaching in Elementary/Middle/Secondary Schools (12)
CI 559 Teaching in Elementary/Middle/Secondary Schools (12)
CI 548A Action Research: P-12 (3) **will take section related to licensure*
OR
CI 575A Individual Research: Curriculum (3) **will take section related to licensure area*

Please note: The State of Illinois is in the process of making significant changes in teacher education that may result in revised standards, programs, testing requirements, and teaching licenses. It is very important that all prospective and current candidates work closely with their advisors to remain current about course and curriculum

changes affecting progress through the program.

Degree Available at SIUE

- Master of Arts in Teaching

Graduation Requirements

In addition to successful completion of the program of study, students are required to pass all Illinois state licensure requirements.

Review the graduation policy for more information.

Athletics Leadership Post-Baccalaureate Certificate

The athletic leadership post-baccalaureate certificate is designed for students or professionals seeking graduate work and/or professional development in athletics.

The certificate program offers substantive study in a relatively brief time and is intended for students or professionals planning to work or currently working in athletics at the college, community college and high school levels.

Program Format

- 100% online
- Certificate can be completed in one year

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Undergraduate GPA of at least 2.5 or above on a 4.0 scale
- Current resume

Admission to this certificate program is on a rolling basis. Students may begin the program in the fall, spring, or summer semester.

Please note that international students are ineligible to receive a student visa for this program.

Exit Requirements

Completion of required courses with at least a 3.0 GPA

Program of Study

Certificate: 9 hours

Courses

- HESA 525 - Law and Ethics in Sport
- HESA 534 - Philanthropy in Higher Education
- HESA 535 - Athletic Finance and Facilities

Enrollment in this program does not qualify for federal financial aid.

Emergency Preparedness-Infectious Outbreaks and Surveillance Post-Baccalaureate Certificate

This certificate introduces students to:

- Principles of public health preparedness and disaster management
- Natural and manmade environmental hazards
- Risk assessment and management
- Emergency risk and crisis communication
- Key epidemiological measurements and study designs
- Surveillance and epidemiological investigation
- Medical surge and emergency healthcare management

Students will also discuss the legal and ethical issues in public health preparedness and disaster management; the development of leadership skills; and plans for community preparedness, response and recovery.

Admission

Applicants with a bachelor's degree who are interested in emergency preparedness are eligible to apply for this certificate program. The application deadline is January 15. All application materials should be submitted to the Graduate School.

Program of Study

- PBHE 462 Special Topics in Public Health-Public Health Preparedness and Disaster Management: This course introduces definitions/principles of public health preparedness and emergency management; threats from both natural and man-made disasters; public health infrastructure and workforce building; legislation, regulations and policies in public health preparedness; surveillance and epidemiological investigation; community preparedness, response, and recovery; emergency risk and crisis communication; emergency healthcare management; and leadership development. Prerequisite: None.
- PBHE 530 Epidemiology: This course introduces the epidemiological measurements and surveillance to disease control and prevention; utilizes epidemiological studies to identify causal relationships between exposures and health outcomes; and applies epidemiology to

development, implementation and evaluation of health policies. Prerequisite: None.
- PBHE 570 Environmental Health: This course addresses core principles and concepts of environmental health, analyze the impacts of human health and the role of global leadership to control environmental hazards. Students learn what kind of evidence is used to assess the health consequences of these exposures, including toxicology, epidemiology and risk assessment, and identifies issues related to conflicting agendas and social justice in environmental issues. Prerequisite: None.
- PBHE 580 Public Health Interventions: This course is an overview of theories for program planning/implementation in public health. Using logic models, community organizing, evaluation/assessment, social marketing and advocacy for leading public health programs/organizations. Prerequisite: None.

Program Format

The certificate may be completed in one summer semester. All classes will be online (synchronous or asynchronous).

Graduation Requirements

Students must complete and pass 12 required credit hours.

Enrollment in this program does not qualify for federal financial aid.

American and English Literature Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 18
- Visit the Paying for College website for detailed tuition information

Admission

In addition to fulfilling the general requirements of the Graduate School, applicants must submit the same supporting materials required for application to the MA specializations (a one-page statement of purpose, a writing sample and three letters of reference accompanied by waiver forms). The graduate advisor may require specific undergraduate coursework from students who have not majored in English. Students who begin the post-baccalaureate certificate program and then wish to enroll in the master's program must meet all requirements for admission to the MA program, including foreign language requirements.

Literature

The literature certificate is designed for students seeking graduate work in literature and research but not wishing to commit to a two-year MA program. The certificate program offers substantive study in a relatively brief time and is intended for students teaching or planning to teach on the community college, high school and middle school levels.

Program of Study

Eighteen hours of coursework (six courses) are required for completion of the program, of which at least nine hours (three courses) must be at the 500 level.

1. Students must complete ENG 501: Modern Literary Studies, preferably in their first semester
2. Students may distribute the remaining five courses among the following (providing that at least two of these are at the 500 level):

ENG 403 History of the English Language
ENG 404 Chaucer: Canterbury Tales
ENG 406 Old English Language
ENG 412 Digital Literacies
ENG 420 Topics in Film Studies
ENG 443 Prosody
ENG 444 Creative Non-Fiction
ENG 445 Young Adult Literature
ENG 446 Studies in African American Literature
ENG 457 Topics in Postcolonial Literature and Criticism
ENG 463 Topics in Literary Periods
ENG 464 Topics in Forms and Genres
ENG 465 Special Topics
ENG 471 Shakespeare
ENG 473 Milton
ENG 475 Methods of Teaching Secondary English Language Arts
ENG 477 Morrison
ENG 478 Studies in Women, Language and Literature
ENG 479 Major Authors: Shared Traditions

ENG 480 Major Authors: Crossing Boundaries
ENG 482 Technology & Literature
ENG 486 Teaching Creative Writing
ENG 490 Advanced Composition
ENG 505 Topics in Forms and Genres
ENG 506 Topics in Literary Periods
ENG 508 Major Author Studies
ENG 521 Topics in Lit & Culture
ENG 526 Studies in African American Texts
ENG 570 Teaching African American Oral and Written Literature
ENG 578 Gender, Language and Pedagogy

Enrollment in this program does not qualify for federal financial aid.

Business Analytics Post-Baccalaureate Certificate

The business analytics post-baccalaureate certificate (PBC) will provide skills in analyzing data as well as provide competency in interpretation and presentation of data to facilitate better business decisions. The PBC curriculum will teach students how to conduct trends analysis using both large, multi-disciplinary data sets and visualizations across various industry sectors, including financial, manufacturing, retail, technology, healthcare, marketing, government, and more.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Bachelor's degree from an accredited college or university. The undergraduate major is typically in business, though individuals with other backgrounds are invited to discuss their career objectives with the program director to determine if their goals are consistent with the program objectives.
- Minimum undergraduate GPA of 2.50
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent.
  **International students cannot receive a visa to pursue this certificate, and are only eligible to apply to this program if concurrently completing a face-to-face graduate program.*
- Submission of a Statement of Purpose, detailing the applicant's background and career plans
- Current resume

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admission Policy for more information.

Curriculum

Coursework includes four courses (12 credit hours) which balance theoretical concepts with applied exercises, cases, and projects. Core concepts of business analytics require knowledge of statistics, databases/data retrieval, programming, and data visualization. The courses required include:

- MBA 521 Quantitative Analysis (3)
- CMIS 563 Oracle SQL for Business Analytics (3)
- CMIS 566 Introduction to Business Intelligence and Analytics (3)
- CMIS 567 Business Analytics Capstone (3)

Retention Standards

Students must remain in good standing to be retained in the program (minimum cumulative GPA of 3.0).

Exit Requirement

Students must successfully complete the 12 required credit hours as described in the curriculum with a minimum GPA of 3.0.

Enrollment in this program does not qualify for federal financial aid.

Data Science Post-Baccalaureate Certificate

The program of study for the post-baccalaureate certificate (PBC) in data science requires 12 hours of

graduate credit, at least six hours of which must be at the 500-level. Students must maintain an overall GPA of 3.0 for all courses taken in the program.

Admitted students can begin the certificate program in either the summer or fall semesters.

Curriculum

Students pursuing the PBC in data science must complete the following sequence of courses:

- STAT 560 - Foundations of Data Science
- STAT 561 - Predictive Modeling and Visualization
- STAT 562 - Machine Learning and Classification Methods OR STAT 489 - Applied Statistical Learning and Data Mining
- CMIS 563 - Oracle SQL for Business Analytics OR CMIS 568 - Advanced Database Programming in Oracle OR CS 434 - Database Management Systems Change

Admission

- Graduate School application and $40 fee
- Submission of all post-secondary academic transcripts
- Successful completion of a bachelor's degree prior to enrollment
- Undergraduate background that includes a statistics course equivalent to STAT 244 with a grade of C (2.0) or better (on a 4.0 scale) at an accredited college or university
- GPA of at least 2.7 (A=4.0)
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
  **International students cannot receive a visa to pursue this online certificate, and are only eligible to apply to this program if concurrently completing a face-to-face graduate program.*
- A brief statement of educational and career goals and interests, together with any supporting documents
- Resume: Please include any special qualifications or relevant professional experience

Exit Requirements

Students must successfully complete the program of study with a minimum GPA of 3.0. Review the graduation policy for more information.

Enrollment in this program does not qualify for federal financial aid.

Digital Media Literacy Post-Baccalaureate Certificate

The media landscape is undergoing a profound change that requires new competencies to access, analyze, create, reflect and engage using digital tools. The digital media literacy post-baccalaureate certificate, offered by the Department of Mass Communications, provides the skills to:

- Use digital media technology
- Spot misinformation
- Distinguish facts from opinion
- Deconstruct media representations
- Reflect on media consumption
- Create digital content
- Understand media law
- Evaluate the social, cultural and historical impact of media
- Become a well-informed member of society

The program is ideal for educators, librarians and media professionals who want to address questions about the impact of media in their work or curriculum. Students will learn how digital media can help or harm an audience while developing knowledge and skills to create digital content that has a positive impact.

Required Credit Hours/Tuition and Fees

- 9
- Visit the Paying for College website for detailed tuition information

Certificate Format

Students can complete the certificate fully online in one summer. Students may choose to complete the certificate in two or three summers. Some courses may be available on campus or online in fall and spring semesters.

Please note that international students are not eligible to receive a student visa for this program.

Admission

This post-baccalaureate certificate application requires evidence of your ability to do graduate-level coursework. Admission requirements include:

- Proof of a baccalaureate degree from an accredited college or university
- Resume or Curriculum Vitae
- Personal statement

Curriculum

Core Courses (6 hours):

MC 503 Cultural Studies in Media
MC 505 Propaganda in the Digital Age

Elective Courses (3 hours)

Select one course from the following electives:

MC 401 Media Law and Policy
MC 455 Media Ethics
MC 456 Identity and Emerging Media
MC 472 Media and Health

Exit Requirements

The student must successfully complete the required program of study with at least a grade of B in each course. The certificate must be completed within three years.

Courses taken as part of this certificate can be applied towards the media studies graduate degree program if application is made within three years of the completion of the certificate.

Enrollment in this program does not qualify for federal financial aid.

Emerging Technologies Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 9
- Visit the Paying for College website for detailed tuition information

The instructional technology program offers three post-baccalaureate certificates (PBCs):

- Emerging Technologies
- Instructional Design
- Online Teaching and Learning

All certificates are 100% online. Please note that international students are ineligible to receive a student visa for these programs.

Admission and Retention for the PBCs

The general requirements for admission to the PBCs are the same as for the Graduate School (which include an application fee of $40, submission of official transcripts and a formal application to the Office of Graduate Admissions). Applicants may arrange for an appeal interview with the Admissions Committee if admission is denied. To be retained within a PBC, students must complete each course with a least a grade of B.

Program of Study

The emerging technologies certificate offers P-12 school personnel opportunities to gain knowledge and skill in successfully integrating cutting-edge educational software and other technologies into their classrooms.

The emerging technologies certificate program requires the completion of 9 hours of online coursework, which consists of the following required classes:

- IT 481 Computers in Education: Theories and Practice
- IT 550 Emerging Technologies in Education
- IT 560 Leadership in Educational Technology

Exit Requirements

Students must successfully complete the required program of study, with at least a grade of B in each course.

Enrollment in this program does not qualify for federal financial aid.

Environmental Management

Required Credit Hours

- 12

- Visit the Paying for College website for detailed tuition information

As our natural resources become increasingly scarce and our natural environment continues to decline, it is imperative to prepare professionals who are equipped to make a difference in the management and protection of natural resources, as well as in promoting environmental quality and sustainability. Environmental management is an interdisciplinary field that combines science, business and law. The integration of knowledge in the science, policy and management aspects of the impact of human societies on the environment will equip working professionals with the tools necessary to develop and assess programs that will regulate and protect the health of our world.

The certificate in integrative studies with a focus in environmental management is part of SIUE's integrative studies program. Please visit the integrative studies graduate program website to find additional opportunities or to learn about designing your own graduate degree.

Admission

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment. Applicants may be required to take prerequisites or resolve any deficiencies before classified status is approved.
- Minimum GPA 3.0
- International Applicants: Proof of English proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A letter of intent clearly articulating the desired focus areas, the applicant’s academic/career goals, how the applicant's academic background prepares them to undertake the program successfully, and how the program serves the applicant's goals must be submitted with the application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants must also meet any additional admissions requirements stipulated by the participating departments, which may include but are not limited to holding a specific undergraduate degree, one or more prerequisite courses, or a standardized test score, such as the GRE.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.0 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission
- The applicant provides a written explanation of their performance in the baccalaureate degree
- The applicant provides a written explanation of why they will be successful in the integrative studies degree

Review the SIUE Admissions Policy for more information.

Curriculum

The post-baccalaureate certificate requires the completion of 12 hours of courses, split between the Department of Environmental Sciences and the School of Business. The courses are as follows:

Environmental Sciences

- ENSC 510 Advanced Environmental Sciences and Policy (3)
- ENSC 511 Environmental Policy (3)

School of Business

- ACCT 524 Accounting for MBAs (3)
- MBA 522 Decision Making in Organizations (3)

Exit Requirements

The student must successfully complete the program of study with a minimum GPA of 3.0.

Enrollment in this program does not qualify for federal financial aid.

Healthcare and Nursing Administration Post-Master's Certificate

Required Credit Hours/Tuition and Fees

- Variable, 21-33*
  - Depends on master's completed
- Visit the Paying for College website for detailed tuition information

*The 12 hours of core courses must either have been completed in the master's degree program or may be taken in the certificate program

Specialization Courses (21 hours): NURS 510, 556, 558, 590, 592, 593 and 594

Terminal Project
Coursework in this specialization prepares students with the theory preparation for the national certification examination.

Retention
Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of A or B. Students who obtain a course grade of D or F in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course. Students may only earn one course grade of C and stay enrolled in graduate nursing programs. If a second course grade of C is earned, students are automatically removed from the graduate nursing program, regardless of their cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied toward this exclusion policy.

Exit Requirements

Master's Terminal Project (Master's and Post-Master's Students)

Master's students in the School of Nursing demonstrate synthesis of their coursework, practicum experiences and attainment of the master's student outcomes by creating a rigorous, scholarly, evidence-based project that incorporates a broad review of the literature from nursing and related fields, and present the project orally to students and faculty during the final synthesis course for the specialization.

Gainful Employment Disclosure

Instructional Design Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 9
- Visit the Paying for College website for detailed tuition information

The instructional technology program offers three post-baccalaureate certificates (PBCs).

- Emerging Technologies
- Instructional Design
- Online Teaching and Learning

All certificates are 100% online. Please note that international students are ineligible to receive a student visa for these programs.

Admission and Retention for PBCs

The general requirements for admission to the PBCs are the same as the Graduate School (which include an application fee of $40, submission of official transcripts and a formal application to the Office of Graduate Admissions). Applicants may arrange for an appeal interview with the Admissions Committee if admission is denied. To be retained within a PBC, students must complete each course with at least a grade of B.

Program of Study

The instructional design certificate provides organizational training personnel with a foundation in the practice of instructional design. This certificate includes the following three courses:

- IT 505 Needs Assessment and Program Evaluation in Instructional Technology
- IT 510 Instructional Systems Design
- IT 530 Managing Instructional Development

Exit Requirements

Students must successfully complete the program of study, with at least a grade of B in each course.

Enrollment in this program does not qualify for federal financial aid.

Marketing and Public Relations

Required Credit Hours/Tuition and Fees

- 12
- Visit the Paying for College website for detailed tuition information

In the increasingly dynamic national and global markets, professionals in marketing and public relations are in high demand, especially if their knowledge and skills cut across industry and specialization areas. A post-baccalaureate certificate in integrative studies with focus areas in marketing and public relations at Southern Illinois University Edwardsville will allow individuals to increase their professional advantage by staying abreast of the cutting-edge trends in these interrelated fields. By learning key concepts and applications of marketing analysis, strategy, and management, as well as visual communication, social media, and international aspects of public relations, students will be well positioned, upon acquiring the certificate, to excel and lead in marketing and public relations agency settings and in corporate or nonprofit communication careers. Evening and online courses will accommodate the busy schedules of working professionals.

The certificate in integrative studies with focus areas in marketing and public relations is part of SIUE's integrative studies program. Please visit the integrative studies program website to find additional opportunities or to learn about designing your own graduate degree.

Admission

- Gaduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment. Applicants may be required to take prerequisites or resolve any deficiencies before classified status is approved.
- Applicants who do not have an undergraduate degree in applied communication studies or a related field will be required to take a Theories of Communication proficiency exam. A grade of at least 80% on this exam is required.
- Minimum GPA 3.25
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A letter of intent clearly articulating the applicant's academic/career goals, how his/her academic background prepares him/her to undertake the program successfully, and how the program serves his/her goals must be submitted with the application.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants must also meet any additional admissions requirements stipulated by the participating departments, which may include but are not limited to holding a specific undergraduate degree, one or more prerequisite courses, or a standardized test score, such as the GRE.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.25 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission
- The applicant provides a written explanation of her/his performance in the baccalaureate degree
- The applicant provides a written explanation of why he/she will be successful in the integrative studies program

Review the SIUE Admission Policy for more information.

Curriculum

The post-baccalaureate certificate requires the completion of 12 hours of courses, split evenly between the Department of Applied Communication Studies and the Department of Management and Marketing. The courses are as follows:

Applied Communication Studies

- ACS 550 Seminar in Public Relations (3)
- One of the following courses (3)
  - ACS 551 Nonprofit Public Relations
  - ACS 552 Corporate Social Responsibility

Management and Marketing

- MKTG 525 Marketing Analysis and Applications for Managerial Decision Making (3)
- One of the following courses (3)
  - MKTG 530 Marketing Planning and Strategy
  - MKTG 534 Advertising Research

Exit Requirements

Students must successfully complete the program of study with a minimum GPA of 3.0.

Enrollment in this program does not qualify for federal financial aid.

Museum Studies

Required Credit Hours/Tuition and Fees

- 21
- Visit the Paying for College website for detailed tuition information

The Museum Studies Certificate offers current and future museum professionals an opportunity to gain expertise that will aid in their career advancement. The curriculum combines active learning through exhibit development and internships, along with elective courses that focus on interpretation, administration, education, and the acquisition of disciplinary backgrounds. For most students, this program provides education adequate for immediate entry into museum careers. In addition, current museum professionals will acquire new skills to broaden or enhance their expertise.

The program presents students with a foundation in theoretical and applied approaches to the interpretative, legal and ethical, community, and administrative challenges that confront museum employees. This sequence of courses is designed for students who have been admitted to a master's degree or are currently enrolled in a related master's program but who want the additional educational credentials to qualify for a certificate. The program may be completed on a part-time or full-time basis.

The program's curriculum and faculty are interdisciplinary, representing the many, diverse areas of skill and expertise relevant to museum work. Students are encouraged to develop a specialization as they choose their elective courses, while also benefiting from the interdisciplinary nature of the museum studies program.

Admission

Applicants must have an earned BA or BS, have maintained a 3.0 undergraduate GPA, and submit transcripts, two letters of recommendation, and a letter of interest. Applicants to the post-baccalaureate certificate in museum studies must have at least an 18 hour minor in history.

Program application materials may be submitted via email to siueapps@siue.edu or mailed to:

Office of Graduate Admissions
Campus Box 1047
Southern Illinois University Edwardsville
Edwardsville, IL 62026-1047

Program of Study

This program entails the completion of 21 hours of coursework, including the following required and elective classes:

Required Courses (12 hours)

- HIST 580 Foundations of Museum Studies (also cross-listed as ART 580)
- ART 581 Management of Museum Collections
- HIST 582 Practicum in Exhibit and Program Development (also cross-listed as ART 582)
- HIST 590 Internships in Museology, or ART 498 Internship in the Arts, or PAPA 595 Public Administration Internship

Elective courses (9 hours)

At least one at the 500-level, open to all graduate-level offerings. These may include the following:

- ANTH 420 Museum Technology
- ANTH 435 American Material Culture
- ANTH 436 Public Archaeology
- ANTH 438 Artifact Analysis
- ANTH 476 Cultural Resource Management
- ANTH 570 Special Topics in Cultural Resource Management
- ART 413 Digital Arts
- ART 454 Curatorship: Exhibition Management and Design
- HIST 435 History of the American Home
- HIST 447 Approaches to Oral History
- HIST 470 Preserving the American Past
- HIST 471 Community Engaged Digital History
- IT 450 Using Video for Instruction
- IT 486 Web Design for Instruction
- IT 510 Instructional Systems Design
- IT 530 Managing Instructional Design
- IT 580 Design of Interactive Learning Environments
- IT 582 Development of Interactive Learning Environments
- PAPA 579 Grantsmanship
- PAPA 501 Public Organizations

- PAPA 575 Nonprofit Leadership

Students must earn a grade of B or better in each course counting toward their post-baccalaureate certificate.

Exit Requirements

Students must successfully complete the program of study.

Gainful Employment Disclosure

Nurse Educator Post-Master's Certificate

Required Credit Hours/Tuition and Fees

- Variable, 12-33*
- Visit the Paying for College website for detailed tuition information

*The 12 hours of core courses and the nine hours of advanced practice core courses must either have been completed in the master's degree program or may be taken in the certificate program.

Specialization courses: NURS 580, 581, 582, 585, and 586.

Terminal project

Coursework in this specialization prepares the student with the theory preparation for the national certification examination.

Retention

Scholarship appropriate for students in a School of Nursing graduate program is demonstrated through satisfactory completion of coursework, defined as obtaining a course grade of A or B. Students who obtain a course grade of D or F in a graduate nursing specialization are withdrawn from the graduate program without the option of repeating the course. Students may only earn one course grade of C and stay enrolled in graduate nursing programs. If a second course grade of C is earned, students are automatically removed from the graduate nursing program, regardless of the cumulative GPA. Repeating a course in which there is originally a grade of C does not eliminate the original course grade of C from being applied toward this exclusion policy.

Exit Requirements

Master's Terminal Project (Master's and Post-Master's Students)

Master's students in the School of Nursing demonstrate synthesis of their coursework, practicum experiences and attainment of the master's student outcomes by creating a rigorous, scholarly, evidence-based project that incorporates a broad review of the literature from nursing and related fields, and present the project orally to students and faculty during the final synthesis course for the specialization.

Gainful Employment Disclosure

Online Teaching and Learning Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 9
- Visit the Paying for College website for detailed tuition information

The instructional technology program offers three post-baccalaureate certificates (PBCs):

- Emerging Technologies
- Instructional Design
- Online Teaching and Learning

All certificates are 100% online. Please note that international students are ineligible to receive a student visa for these programs.

Admission and Retention

The general requirements for admission for the PBCs are the same as for the Graduate School (which include an application fee of $40, submission of official transcripts and a formal application to the Office of Graduate Admissions). Applicants may arrange for an appeal interview with the Admissions Committee if admission is denied. To be retained within a PBC, students must complete each course with at least a grade of B.

Program of Study

The online teaching and learning certificate provides educators, corporate training personnel and college instructors with skills necessary for designing and teaching within the online classroom. Specifically, the curriculum for this PBC includes a consideration of commonly used online learning tools. The curriculum will train students in processes for creating, managing, facilitating and evaluating online courses.

The online teaching and learning certificate program requires the completion of 9 hours of online coursework, which consists of the following required classes:

- IT 567 Online Teaching Tools
- IT 568 Design and Development of Online Lessons, Modules, and Courses
- IT 569 Facilitating Online Classrooms

Exit Requirements

Students must successfully complete the required program of study, with at least a grade of B in each course.

Enrollment in this program does not qualify for federal financial aid.

Piano Pedagogy Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 18
- Visit the Paying for College website for detailed tuition information

The post-baccalaureate certificate in piano pedagogy is designed for piano teachers who wish to advance their skills in performance, pedagogy, literature and theory. Students who complete the certificate may apply the coursework (except MUS 440 and 500A) toward a master's in piano performance if accepted into that program.

Admission

An applicant for admission to the certificate program is expected to have a baccalaureate degree or its equivalent in music and at least a 2.5 (A=4.0) overall GPA in undergraduate coursework and must complete a successful audition for applied piano placement.

Program of Study

Post-Baccalaureate Certificate in Piano Pedagogy (18-20 hours)

Required Courses (16 hours)

Piano Pedagogy: 561A, 561B (6 hours)
Seminar in Materials and Techniques: 553C (2 hours)
Applied Piano: 440K or 540K (4 hours)
Piano Literature: 513A, 513B (4 hours)

Electives (Select 2-4 hours)

Counterpoint: 442 (3 hours)
Applied Theory Ear Training: 530 (2 hours)
Graduate Music Theory Review: 500A (2 hours)
Applied Piano: 440K or 540K (2 hours)

Exit Requirements

Students must maintain a GPA of 3.0 and complete the course requirements within four calendar years.

Enrollment in this program does not qualify for federal financial aid.

Principal Preparation Post-Master's Certificate

The post-master’s certificate is available to students who already have a master's degree. This option leads to the principal endorsement on an Illinois professional educator license.

Required Credit Hours/Tuition and Fees

- 30 credit hours
- Visit the paying for college website for detailed tuition information

Certificate Format

Courses for this certificate are completed online.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Completion of a master's degree with a GPA of 3.0 (A=4.0) or higher on graduate work
- Proof of Illinois Professional Educator License (PEL) or out of state equivalent
- All applicants must show they have at least two years of full time teaching experience on a professional educator license or out-of-state equivalent.
- Applicants must hold or have held a pre-K-12 teaching position for four years to qualify for licensure.
- International applicants: Proof of English proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent.
  International students cannot receive a visa to pursue this certificate and are only eligible to apply to this program if concurrently completing a face-to-face graduate program.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the graduate admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Candidate Requirements

Students meeting the admission requirements will be given provisional admission allowing them to enroll in EDAD 500: Organization and Administration of Schools. During EDAD 500, students complete the candidate selection process. This process includes:

- Completion of a leadership portfolio summarizing leadership experience and potential for instructional leadership
- Identification of a qualified mentor for internship experiences
- Participation in a selection interview
- An assessment of written communication skills based on a response to a case study

Upon successful completion of EDAD 500 and selection as a candidate, candidates receive full admittance to the program.

Curriculum

The curriculum consists of six lecture courses and four field-based internship elective courses for a total of 30 credit hours.

Lecture Courses (18 hours)

- EDAD 500 (3) – Introduction to School Leadership
- EDAD 520 (3) – School Law
- EDAD 525A (3) – Instructional Leadership and Supervision: Theory and Research
- EDAD 530A (3) – Data Driven School Improvement and Accountability: Theory and Research
- EDAD 535A (3) – Curriculum Leadership: Theory and Research
- EDAD 545A (3) – The Principalship: Theory and Research

Field-Based Internship Courses (12 hours)

- EDAD 525B (3) – Instructional Leadership and Supervision: Field Experience
- EDAD 530B (3) – Data Driven School Improvement and Accountability: Field Experience
- EDAD 535B (3) – Curriculum Leadership: Field Experience
- EDAD 545B (3) – The Principalship: Field Experience

Graduation Requirements

Students must complete the required coursework with a GPA of 3.0 or higher.

All candidates must complete a four-course field-based internship which is aligned with the National Council for Accreditation of Teacher Education standards, the Interstate School Leaders Licensure Consortium standards, the 36 critical success factors outlined in the Southern Research Education Board's "The Principal Internship: How Can We Get It Right?", the Educational Leadership Constituents Council standards, and the Illinois State Board of Education general administration endorsement standards.

The internship is supervised and evaluated by an

administrator in the field and an educational leadership faculty member from SIUE.

Review the SIUE graduation policy for more information.

Enrollment in this program does not qualify for federal financial aid.

Professional Leadership Strategies Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 15
- Visit the Paying for College website for detailed tuition information

The Department of Public Administration and Policy Analysis offers a post-baccalaureate certificate program leading to the certificate in professional leadership strategies. The certificate is designed to prepare administrators for leadership roles in the public and nonprofit sectors at all levels of an organization and has been designed to serve those who have been or will be called upon to serve as leaders in public and nonprofit organizations or in community and regional service activities. The certificate recognizes that leadership is a valuable tool available to all employees at all levels of the organization and is designed to extend the knowledge, skills and abilities of all individuals into the realm of leadership.

Certificate Format

- Fully online
- Can be completed in as little as one year

Admission Requirements

Application for admission to the certificate program is to be made through the Graduate School at SIUE. Inquires regarding the program should be made to the public administration graduate program director. Admission requires successful completion of a baccalaureate degree with a minimum GPA of 2.7 (4.0 scale).

Professionals in the field with a GPA between 2.5 and 2.7 may petition the graduate program director for conditional admission with two or more years of professional experience. Applicants seeking conditional admission are also required to submit a resume and a typed one-page statement of purpose along with the application to the program. The statement of purpose should provide a clear and concise discussion of the purpose for which the student is seeking the leadership certificate.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu.

Review the SIUE Admission Policy for more information.

Curriculum

This certificate program requires the completion of 15 credit hours of coursework, including the following required and elective classes:

Required Courses (12 hours):

PAPA 580 Public and Nonprofit Leaders
PAPA 581 Leadership with Public and Nonprofit Boards
PAPA 582 Leading in Public and Nonprofit Organizations
PAPA 584 Leadership in the Community and Region

Elective Courses (3 hours from the following):

PAPA 576 Strategic Management
PAPA 577 Needs Assessment
PAPA 583 Leading Innovation in Public and Nonprofit Organizations

Click on the course numbers above for course description, next available term and frequency.

Graduation Requirements

Students must complete the required number of

hours and have a GPA of 3.0 or higher in the required courses, and a 3.0 in the certificate program overall.

Review the SIUE Graduation Policy for more information.

Enrollment in this program does not qualify for federal financial aid.

Psychiatric Mental Health Nurse Practitioner Post-Master's Certificate

Students must have a master's degree with a family nurse practitioner specialization

Required Credit Hours/Tuition and Fees

- 19
- Visit the Paying for College website for detailed tuition information

Admission Requirements

- Complete a NursingCAS application prior to the established deadline
- Submission of all postsecondary academic transcripts to Nursing CAS
- Applicant must hold a master's or DNP degree and be certified as a family nurse practitioner
- Minimum cumulative master's GPA of 3.0 on a 4.0 scale
- Submission of proof of current unencumbered RN licensure to NursingCAS
- Submission of family nurse practitioner certification to NursingCAS
- Submission of a resume or curriculum vitae to NursingCAS
- Submission of a personal statement to NursingCAS
- Submission of three reference forms via NursingCAS
  - One must be from your current manager
  - Two others preferably from nurses holding a graduate degree in nursing or a related field

Admission and Enrollment Requirements

- Successful completion of an applicant Interview (invitation only)
- Master’s or DNP degree and be certified as a family nurse practitioner
- Minimum cumulative master’s GPA of 3.0 on a 4.0 scale
- Current unencumbered APRN license in the state where you plan to complete your practicum experience.
  - Please note: If you live anywhere in or around the St. Louis metro area, we strongly encourage you to hold an active Illinois and Missouri license.
- Successful completion of a drug screen and a criminal background check, as specified by the School of Nursing, to be performed prior to enrollment in the program.

Applicants may follow up with the School of Nursing at 618-650-3930 or nursing@siue.edu for additional questions or to check the status of their application.

Graduation Requirements

Doctoral students in the psychiatric mental health nurse practitioner option must complete all courses with a GPA of 3.0/4.0, which includes successful completion of all clinical practicum experiences.

Curriculum

Post-Master's Certificate Option for Family Nurse Practitioners
Fall Start, Slow Progression

Year 1 (Semester 1)

(3) NURS 641 Psychiatric Interviewing for Nurse Practitioners

Year 1 (Semester 2)

(3) NURS 640 Neurobiology and Clinical Psychopharmacology

Year 1 (Semester 3)

(5) NURS 642 Psychiatric Mental Health I (180 clinical hours)

Year 2 (Semester 1)

(5) NURS 643 Psychiatric Mental Health II (180 clinical hours)

Year 2 (Semester 2)

(3) NURS 644 Advanced Psychiatric Mental Health Role Synthesis (180 clinical hours)

Total Hours 19

Total Clinical Hours 540

Tuition and Fees

Estimated Tuition and Fees 2026-2027

Semester (hours)	Tuition	Fees	Total
Fall, Year 1 (6 hours)	$2,306	$789	$3,095
Spring, Year 1 (5 hours)	1,922	694	2,616
Summer, Year 1 (5 hours)	1,922	694	2,616
Fall, Year 2 (3 hours)	1,153	464	1,617
Total (19)	**$ 7,303**	**$2,641**	**$9,944**

Tuition is $384.30/credit hour and general student fees are $114.80/credit hour based on 2026-2027 rates. Program fees and course-specific fees may also be assessed and are included in the estimates above. Rates beyond summer 2027 are not yet approved and are subject to change. Rates for future terms are provided only as an estimate. DNP tuition is a specialized tuition rate that all students pay regardless of residency.

Enrollment in this program does not qualify for federal financial aid.

Superintendent Post-Master's Certificate

The post-master's certificate is available to students who already have a specialist degree. This program is designed for leaders in education desiring career positions as superintendents or district-level leaders, and leads to the superintendent endorsement on an Illinois professional educator license.

Required Credit Hours/Tuition and Fees

- 30 credit hours
- Visit the paying for college website for detailed tuition information

Certificate Format

Courses for this certificate are completed online.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Completion of a specialist's degree with a GPA of 3.25 (A=4.0) or higher in graduate study
- Proof of Illinois Professional Educator License (PEL) or out of state equivalent
- Applicants for the superintendent program must show they have at least two years full-time administrative or supervisory experience on the following Illinois credential: general administrative; principal; director of special education; or chief business official.
- International applicants: Proof of English proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent.
  International students cannot receive a visa to pursue this certificate and are only eligible to apply to this program if concurrently completing a face-to-face graduate program.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the graduate admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Curriculum

Lecture Courses (18 hours)

- EDAD 555 – Superintendency, District Administration and Governance
- EDAD 563 – School and Community Relations

- EDAD 565 – School Personnel Administration
- EDAD 570 – Leadership Theory and Practice
- EDAD 580 – District Program Development
- EDAD 585 – School District Business Administration

Field-Based Internship Courses (12 hours)

- EDAD 591 – Internship Practicum/Superintendent Internship (three consecutive semesters totaling one calendar year)

Graduation Requirements

Students must complete the required coursework with a GPA of 3.0 or higher.

All candidates must complete a three-course field-based internship experience that spans an entire calendar year. The internship is supervised and evaluated by an administrator in the field and an educational leadership faculty member of Southern Illinois University Edwardsville.

Review the SIUE graduation policy for more information.

Enrollment in this program does not qualify for federal financial aid.

Supply Chain Management Post-Baccalaureate Certificate

The post-baccalaureate certificate in supply chain management offered by the Department of Industrial Engineering provides students with an opportunity to obtain a graduate-level credential in the field of supply chain management with a focus on logistics, transportation, and warehousing.

Certificate courses completed can be applied towards the MS in Industrial Engineering degree program if application to the master's degree program is made within three years of completion of the certificate.

Required Credit Hours/Tuition and Fees

- 12 credit hours
- Visit the Paying for College website for detailed tuition information.

Certificate Format

Courses can be completed online or through face-to-face courses on the SIUE campus.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Undergraduate GPA of at least 2.75 (A=4.0) in engineering, mathematics and physical science courses.
- Applicants should have a baccalaureate degree in an engineering discipline from an ABET-accredited program. Applicants who completed a non-ABET-accredited program or whose undergraduate studies were in a country other than the United States must have a baccalaureate degree in an engineering discipline which is comparable to the United States' bachelor's degree equivalent, and must take the Graduate Records Examination (GRE) (verbal, quantitative and analytical portions) to support their application.
- Applicants from selected areas of mathematical and physical science will be considered for admission on an individual basis.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent. *International students cannot receive a visa to pursue this certificate and are only eligible to apply to this program if concurrently completing a face-to-face graduate program.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Curriculum

The curriculum consists of two required courses and two elective courses for a total of 12 credit hours. At least two 500-level courses must be completed.

Required Courses (6 credit hours):

- IE 583: Supply Chain Logistics Systems (3 hours)
- IE 515: Engineering Optimization (3 hours)

Elective Courses (Choose two for 6 credit hours):

- IE 445: Foundation of Financial Engineering (3 hours)
- IE 461: Operation Research Stochastic Models (3 hours)
- IE 468: Operation Research Simulation (3 hours)
- IE 492: Systems Engineering (3 hours)
- IE 528: Data Analytics and Mining (3 hours)
- IE 531: Engineering Project Management (3 hours)

Graduation Requirements

Students must complete the certificate courses with a grade of "B" or higher in each course, and a GPA of 3.0 or higher in the certificate program.

Review the SIUE Graduation Policy for more information.

Enrollment in this program does not qualify for federal financial aid.

Taxation Post-Baccalaureate Certificate

The taxation post-baccalaureate certificate (PBC) is designed to prepare BSA and non-BSA students for tax positions in public accounting and other tax-related careers.

The courses that make up the taxation PBC are also offered as part of the MSA and MSA tax specialization. Students who choose to subsequently join the MSA program may apply any credit hours earned toward a taxation PBC to the MSA.

Admission and Retention

Admission and retention requirements are the same as those of the MSA program. As with the MSA program, ACCT 321-Introduction to Taxation, is a prerequisite for all MSA tax courses. Non-BSA students must complete ACCT 321 with a grade of B or better to enroll in any taxation PBC course. Retention requires a taxation PBC GPA of 3.0.

Program of Study

The PBC consists of four 500-level MSA tax courses covering topics such as:

- Tax research
- Personal taxation
- Tax planning
- Corporate taxation
- State and local tax

To complete the PBC, students must complete four tax courses as follows:

- Required: ACCT 550 - Tax Research
- Choose three from the following:
  - ACCT 552 - State and Local Tax
  - ACCT 553 - Taxation of Flow-Through Entities
  - ACCT 556 - Personal Tax Planning
  - ACCT 557 - Corporate Taxation

Any substitutions must be approved by the MSA program director.

Exit Requirements

Students must successfully complete all required courses with a grade of C or better and a GPA of 3.0 or greater.

Enrollment in this program does not qualify for federal financial aid.

Teacher Leader Post-Master's Certificate

The post-master's certificate is available to students who already have a master's degree. This option leads to the teacher leader endorsement on an Illinois professional educator license.

Required Credit Hours/Tuition and Fees

- 30 credit hours

- Visit the paying for college for detailed tuition information

Certificate Format

Courses for this certificate are completed online.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Completion of a master's degree with a GPA of 3.0 (A=4.0) or higher on graduate work
- Proof of Illinois Professional Educator License (PEL) or out of state equivalent
- International applicants: Proof of English proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent.
  International students cannot receive a visa to pursue this certificate and are only eligible to apply to this program if concurrently completing a face-to-face graduate program.

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the graduate admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Candidate Requirements

Students meeting the admission requirements will be given provisional admission allowing them to enroll in EDAD 500: Organization and Administration of Schools. During EDAD 500, students complete the candidate selection process. This process includes:

- Completion of a leadership portfolio summarizing leadership experience and potential for instructional leadership
- Identification of a qualified mentor for internship experiences
- Participation in a selection interview
- An assessment of written communication skills based on a response to a case study

Upon successful completion of EDAD 500 and selection as a candidate, candidates receive full admittance to the program.

Curriculum

Lecture Courses (27 hours)

- EDAD 500 – Introduction to School Leadership
- EDAD 525A – Instructional Leadership and Supervision: Theory and Research
- EDAD 530A – Data Driven School Improvement and Accountability: Theory and Research
- EDAD 535A – Curriculum Leadership: Theory and Research
- CI 582 – Becoming a Teacher Leader: Mentor and Coach
- CI 583 – Leadership in Professional Development
- IT 481 – Computers in Education: Theory and Practice
- IT 550 – Emerging Technologies in Education
- IT 560 – Leadership in Educational Technology

Practicum (3 hours)

- EDAD 550 (3) – Teacher Leader Practicum

Graduation Requirements

Students must complete the required coursework with a GPA of 3.0 or higher.

All candidates must complete a field-based practicum supervised and evaluated by an administrator or mentor in the field and a faculty member in the Department of Educational Leadership at SIUE.

The internship is supervised and evaluated by an administrator in the field and a faculty member from the Department of Educational Leadership at SIUE.

Review the SIUE graduation policy for more information.

Enrollment in this program does not qualify for federal financial aid.

Teaching of Writing Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 18
- Visit the Paying for College website for detailed tuition information

Admission

In addition to fulfilling the general requirements of the Graduate School, applicants must submit the same supporting materials required for application to the MA specializations (a three-to five-page paper which explains how the applicant became interested in the field of teaching of writing; what the applicant hopes to learn in the program and how that learning will help the applicant in a career; and three letters of reference). The graduate advisor may require specific undergraduate coursework from students who have not majored in English. Students who begin the post-baccalaureate certificate program and then wish to enroll in the master's program must meet all requirements for admission to the MA program, including foreign language requirements.

Teaching of Writing

The teaching of writing post-baccalaureate certificate is designed for students seeking graduate work in composition pedagogy and research but not wishing to commit to a two-year MA program. The certificate program offers substantive, comprehensive study in a relatively brief time and is intended for students teaching or planning to teach on the university, community college, high school and middle school levels.

Program of Study

Required courses (12 hours):

ENG 552 Academic Writing and Research Methods in Composition Studies
ENG 554 Composition Pedagogy
ENG 556 Theory of Composition and Rhetoric
ENG 558 Practicum in the Teaching of Writing

Electives (6 hours, 3 credit hours each) selected from:

ENG 486 Teaching Creative Writing
ENG 490 Advanced Composition
ENG 491 Technical Writing
ENG 492 Advanced Fiction Writing
ENG 493 Advance Poetry Writing
ENG 541 Discourse Analysis
ENG 570 Teaching African American Oral and Written Tradition
ENG 572 Theory and Practice of Teaching Writing with Computers
ENG 574 Basic Writing Theory and Pedagogy
ENG 576 Writing Across the Curriculum
ENG 578 Gender, Language, and Pedagogy
ENG 581 Topics in Teaching Writing
ENG 587 Politics of Composition Pedagogy
ENG 588 History of Rhetoric I - The Classical Period to the Renaissance
ENG 589 History of Rhetoric II - The Enlightenment to Today
ENG 592 Creative Writing

Enrollment in this program does not qualify for federal financial aid.

Total Quality Management Post-Baccalaureate Certificate

The post-baccalaureate certificate in total quality management offered by the Department of Industrial Engineering provides students with an opportunity to obtain a graduate-level credential in the field of quality management. The certificate will focus on the use of continuous improvement in a global setting, including the principles of Six Sigma, LEAN, and statistical design models.

Certificate courses completed can be applied towards the MS in Industrial Engineering degree program if application to the master's degree program is made within three years of completion of the certificate.

Required Credit Hours/Tuition and Fees

- 12 credit hours
- Visit the Paying for College website for detailed tuition information.

Certificate Format

Courses can be completed online or through face-to-face courses on the SIUE campus.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Undergraduate GPA of at least 2.75 (A=4.0) in engineering, mathematics and physical science courses.
- Applicants should have a baccalaureate degree in an engineering discipline from an ABET-accredited program. Applicants who completed a non-ABET-accredited program or whose undergraduate studies were in a country other than the United States must have a baccalaureate degree in an engineering discipline which is comparable to the United States' bachelor's degree equivalent, and must take the Graduate Records Examination (GRE) (verbal, quantitative and analytical portions) to support their application.
- Applicants from selected areas of mathematical and physical science will be considered for admission on an individual basis.
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent. *International students cannot receive a visa to pursue this certificate and are only eligible to apply to this program if concurrently completing a face-to-face graduate program.
- Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

Curriculum

The curriculum consists of two required courses and two elective courses for a total of 12 credit hours. At least two 500-level courses must be completed.

Required Courses (6 credit hours):

- IE 557: Value Engineering (3 hours)
- IE 531: Engineering Project Management (3 hours)

Elective Courses (Choose two for 6 credit hours):

- IE 451: Methods Design and Work Measurements (3 hours)
- IE 462: Six Sigma, Quality and Process Improvement (3 hours)
- IE 463: Reliability Engineering (3 hours)
- IE 464: Design & Analysis of Experiments with Applications to Science and Engineering (3 hours)
- IE 465: Design & Control of Quality Systems (3 hours)
- IE 467: Total Quality and Taguchi Methods (3 hours)
- IE 488: Lean Production Systems (3 hours)

Graduation Requirements

Students must complete the certificate courses with a grade of "B" or higher in each course, and a GPA of 3.0 or higher in the certificate program.

Review the SIUE Graduation Policy for more information.

Enrollment in this program does not qualify for federal financial aid.

Transportation Engineering and Construction Management

Required Credit Hours/Tuition and Fees

- 19
- Visit the Paying for College website for detailed tuition information

The post-baccalaureate certificate in integrative studies with a focus in transportation engineering and construction management is intended for civil engineers and construction managers seeking to enter or advance in the transportation construction sector. This certificate will also allow roadway construction professionals an opportunity to improve their expertise in topics such as road safety assessment and intelligent transportation systems design. Those aiming to start or shift careers into the transportation sector will improve their background and add estimating, bidding and engineering design skills essential to roadway

construction.

The certificate in integrative studies with a focus in transportation engineering and construction management is part of SIUE's integrative studies program. Please visit the integrative studies program website to find additional opportunities or to learn about designing your own graduate degree.

Admission

- Graduate School application and $40 fee
- Official copies of all postsecondary transcripts
- Successful completion of a bachelor's degree prior to enrollment. Applicants may be required to take prerequisites or resolve any deficiencies before classified status is approved.
- Minimum GPA 3.0
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A letter of intent clearly articulating the applicant's academic/career goals, how his/her academic background prepares him/her to undertake the program successfully, and how the program serves his/her goals must be submitted with the application

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu.

Applicants must also meet any additional admissions requirements stipulated by the participating departments, which may include but are not limited to holding a specific undergraduate degree, one or more prerequisite courses, or a standardized test score, such as the GRE.

Applicants with a baccalaureate and/or graduate-level GPA between 2.5 and 3.0 may be considered if all the following conditions are met.

- The baccalaureate degree and/or graduate-level work was earned more than four years prior to the application submission
- The applicant provides a written explanation of her/his performance in the baccalaureate degree
- The applicant provides a written explanation of why he/she will be successful in the integrative studies program

Review the SIUE Admission Policy for more information.

Curriculum

The post-baccalaureate certificate requires the completion of 19 hours of courses, split between the Departments of civil Engineering and Construction Management. The courses are as follows:

Civil Engineering

- CE 574 Transportation Infrastructure Security (3)
- CE 575 Advanced Geometric Design of Highways (3)
- CE 579 Transportation Safety Systems (3)
- CE 578 Intelligent Transportation Systems (3)

Construction

- CNST 451 Estimating and Bidding (4)
- CNST 425 Heavy Civil Construction (4)

Exit Requirements

Students must successfully complete the program of study with a minimum GPA of 3.0.

Enrollment in this program does not qualify for federal financial aid.

Transportation Engineering Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 9
- Visit the Paying for College website for detailed tuition information

The Department of Civil Engineering offers two post-baccalaureate certificates (PBCs). Each PBC is designed to provide students with focused study and professional development in a specialized area of civil engineering.

Admission

Graduate students who are officially admitted to,

and in good standing with, the Graduate School may apply for enrollment in one of the PBCs. The civil engineering graduate program director will issue admission notification and approvals. Admitted students are expected to have completed all prerequisite courses or obtain instructor approval for each PBC course.

Program of Study

Students are expected to declare one PBC at a time, and are required to complete any three courses among those listed for the declared PBC.

Transportation Engineering:

- CE 574 Transportation Security (3)
- CE 545 Advanced Geometric Design of Highways (3)
- CE 578 Intelligent Transportation Systems (3)
- CE 579 Transportation Safety Systems (3)
- CE 596 Sustainable Engineering (3)

Enrollment in this certificate program does not qualify for federal financial aid.

Vocal Pedagogy Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 18
- Visit the Paying for College website for detailed tuition information

The post-baccalaureate certificate in vocal pedagogy is designed for voice teachers who wish to advance their skills in pedagogy and literature. Students who complete the certificate may apply the coursework (except MUS 440 and 500A) toward a master's in vocal performance if accepted into that program.

Admission

An applicant for admission to the certificate program is expected to have a baccalaureate degree or its equivalent in music and at least a 2.5 (A=4.0) overall GPA in undergraduate coursework and must complete a successful audition for voice placement.

Program of Study

Post-Baccalaureate Certificate in Vocal Pedagogy (18-20 hours):

Required Courses (14 hours)

Vocal Pedagogy: 519A, 519B (4)
Vocal Literature: 511F (2)
Applied Voice: 440Q or 540Q (4)
Advanced Diction: 539 (2)
Practicum in Vocal Pedagogy: 593 (2)

Electives (Select 4-6 hours)

Applied Voice: 440Q or 540Q (2-4)
Graduate Music History Review: 500B (2)
Applied Theory and Ear Training: 530 (2)

Exit Requirements

Students must maintain a GPA of 3.0 and complete the course requirements within four calendar years.

Enrollment in this program does not qualify for federal financial aid.

Water Engineering Post-Baccalaureate Certificate

Required Credit Hours/Tuition and Fees

- 9
- Visit the Paying for College website for detailed tuition information

The Department of Civil Engineering offers two post-baccalaureate certificates (PBCs). Each PBC is designed to provide students with focused study and professional development in a specialized area of civil engineering.

Admission

Graduate students who are officially admitted to, and in good standing with, the Graduate School may apply for enrollment in one of the PBCs. The civil engineering graduate program director will issue admission notification and approvals. Admitted students are expected to have completed all prerequisite courses or obtain instructor approval for each PBC course.

Program of Study

Students are expected to declare one PBC at a time, and are required to complete any three courses among those listed for the declared PBC.

Water Engineering:

- CE 581 Advanced Wastewater Treatment (3)
- CE 582 Water Quality and Treatment (3)
- CE 592 River Restoration (3)
- CE 592 Hydraulic Structure Design (3)
- CE 596 Sustainable Engineering (3)

Enrollment in this certificate program does not qualify for federal financial aid.

Faculty

Psychology

Abraham, Ashley, Assisant Professor
PhD, Kent State University

Geography

Acheson, Gillian, Professor
PhD, Texas A&M, College Station

Physics

Ackad, Edward M., Associate Professor
PhD, York University

Mathematics and Statistics

Agustin, Marcus A., Professor
PhD, Bowling Green State University

Agustin, Ma Zenia N., Professor
PhD, Bowling Green State University

Economics and Finance

Agyeman-Doudu, David, Assistant Professor
PhD, University of Mississippi

English Language and Literature

Aktuna, Seran Dogancay, Professor
PhD, University of Pennsylvania

Applied Communication Studies

Alexander, Alicia L., Professor
PhD, The University of Texas at Austin

Historical Studies

Alexander, Erik B., Assistant Professor
PhD, University of Virginia

Family Health and Community Health Nursing

Ampadu, Jerrica, Assistant Professor
PhD, University of Hawaii Manoa

Biological Sciences

Anderson, Thomas, Assistant Professor
PhD, University of Missouri

English Language and Literature

Anderson, Jill K., Associate Professor
PhD, Michigan State University

Primary Care and Health Systems Nursing

Andrews, Angela, Assistant Professor
PhD, University of Missouri - Kansas City

Music

Anop, Lenora-Marya, Professor
DMA, University of Michigan

Biological Sciences

Aranda, Maurina, Assistant Professor
PhD, Purdue University

Music

Archer, Kimberly K., Professor
DMA, The University of Texas at Austin School of Music

Mass Communications

Baasanjav, Undrah B., Assistant Professor
PhD, Ohio University

Primary Care and Health Systems Nursing

Baecht, Leah, Assistant Professor
DNP, Southern Illinois University Edwardsville

Family Health and Community Health Nursing

Barron, Mary Lee, Associate Professor
PhD, Saint Louis University

Art and Design

Barrow, Jane A., Professor
MFA, Indiana University

Biological Sciences

Barry, Kelly J., Associate Professor
PhD, University of Hawaii

Psychology

Bartels, Lynn K., Professor
PhD, University of Akron

Economics and Finance

Belasen, Ariel R., Associate Professor
PhD, State University of New York at Binghamton

Civil Engineering

Benjankar, Rohan, Assistant Professor
PhD, University of Idaho

Management and Marketing

Berkley, Robyn A, Associate Professor
PhD, University of Wisconsin - Madison

Foreign Languages and Literature

Bezhanova, Olga, Associate Professor
PhD, Yale University

Economics and Finance

Bharati, Rakesh C., Professor
PhD, Indiana University

Pharmaceutical Sciences

Bhargav, Patel, Assistant Professor
PhD, St. John's University

Geography

Black, Alan, Assistant Professor
PhD, University of Georgia

English Language and Literature

Black, Margaret, Assistant Professor
PhD, University of Wisconsin Madison

Computer Management and Information Systems

Bordoloi, Bijoy, Professor
PhD, Indiana University

Psychology

Bradley, Rachel, Assistant Professor
PhD, Saint Louis University

English Language and Literature

Brooks, Tisha M., Assistant Professor
PhD, Tufts University

Applied Communication Studies

Brown, Jocelyn M., Associate Professor
PhD, Ohio University

Geography

Brown, Stacey R., Associate Professor
PhD, Oklahoma State University

Social Work

Brown, Venessa A., Professor
PhD, Clark Atlanta University

Biological Sciences

Brunkow, Paul E., Associate Professor
PhD, Arizona State University

Mathematics and Statistics

Budzban, Gregory, Professor
PhD, University of South Florida

Teaching and Learning

Bushrow, Kathy M., Professor
PhD, The University of Texas at Austin

Biological Sciences

Butts-Wilmsmeyer, Carolyn, Associate Professor
PhD, University of Illinois

English Language and Literature

Cali, Elizabeth J., Assistant Professor

PhD, The University of Texas at San Antonio

Sociology and Criminal Justice Studies

Cannon, Kevin, Associate Professor
PhD, University of Nebraska at Omaha

Social Work

Carter, Kimberly A., Assistant Professor
PhD, Washington University

Philosophy

Cashen, Matthew C., Associate Professor
PhD, Washington University

Mechanical and Industrial Engineering

Celik, Serdar, Professor
PhD, Southern Illinois University Carbondale

Applied Communication Studies

Cheah, Wai Hsien, Professor
PhD, University of Kentucky

Historical Studies

Cheeseboro, Anthony Q., Associate Professor
PhD, Michigan State University

Mechanical and Industrial Engineering

Chen, Xin, Associate Professor
PhD, Purdue University

Mathematics and Statistics

Chew, Song Foh, Professor
PhD, Purdue University

Psychology

Childers, Marie, Assistant Professor
PhD, Bowling Green State University

Music

Chin, Huei L., Associate Professor
PhD, The Ohio State University

Applied Health

Chleboun, Steffany M., Associate Professor
PhD, University of Nebraska - Lincoln

Management and Marketing

Choi, Yohan, Assistant Professor
PhD, Oregon State University

Applied Health

Cluphf, David, Professor
EdD, West Virginia University

Music

Coan, Darryl A., Professor
EdD, University of Illinois

Sociology and Criminal Justice Studies

Cobb, P. Denise, Provost and Vice Chancellor for Academic Affairs
PhD, Tulane University

Mathematics and Statistics

Codjoe, Priscilla, Assistant Professor
, Missouri University Science and Technology

Computer Management and Information Systems

Collier, Cassandra, Assistant Professor
PhD, University of Houston

Primary Care and Health Systems Nursing

Compton-McBride, Sheri, Assistant Professor
DNP, Southern Illinois University Edwardsville

Psychology

Conoyer, Sarah, Assistant Professor
PhD, University of Missouri

Primary Care and Health Systems Nursing

Cooley, Tracy, Assistant Professor
DNP, University of Missouri - St. Louis

Art and Design

Cooper, Ivy, Professor
PhD, University of Pittsburgh

Philosophy

Crane, Judith K., Professor
PhD, Tulane University

Computer Science

Crk, Igor, Associate Professor
PhD, University of Arizona

Foreign Languages and Literature

Cuervo, Heidy P., Associate Professor
PhD, Southern Illinois University Carbondale

Mechanical and Industrial Engineering

Darabi, Jeff, Professor
PhD, University of Maryland

Psychology

Daus, Catherine S., Professor
PhD, Purdue University

Growth, Development and Structure

De Maria, Alicia, Assistant Professor
PhD, University of the Republic, Uruguay

Chemistry

De Meo, Cristina, Professor
PhD, University of Georgia - Athens

Biomedical & Craniofacial Sciences

del Moral, Brenda, Associate Professor
PhD, Oregon Health & Science University

Economics and Finance

Demirer, Riza, Professor
PhD, University of Kansas

Art and Design

DenHouter, John R., Associate Professor
MFA, University of Michigan and Eastern Michigan University

English Language and Literature

DeSpain, Jessica R., Associate Professor
PhD, University of Iowa

Pharmaceutical Sciences

Devraj, Radhika, Associate Professor
PhD, Purdue University

Art and Design

Dimick, Brigham A., Professor
MFA, Indiana University

Chemistry

Dixon, Robert P., Associate Professor
PhD, University of Pittsburgh

Public Administration and Policy Analysis

Dolan, Drew A., Professor
PhD, Northern Illinois University

Nurse Anesthesiology

Douglass, Lauren, Assistant Professor
DNP, University of North Florida, Jacksonville

Art and Design

Duhigg, Thad A., Professor
MFA, Syracuse University

Pharmaceutical Sciences

Durantini, Andres, Assistant Professor
PhD, National Universityof Rio Cuarto

Mathematics and Statistics

Lizano, Cheryl L., Assistant Professor
PhD, Illinois State University

Civil Engineering

Elsisi, Alaaeldin, Assistant Professor
PhD, University of Missouri

Computer Science

Ercal, Gunes, Associate Professor
PhD, University of California, Los Angeles

Biological Sciences

Esselman, Elizabeth J., Professor
PhD, The Ohio State University

Essner, Jr., Richard L., Professor
PhD, Ohio University

Psychology

Everett, Gregory E., Professor
PhD, University of Southern Mississippi

Philosophy

Fatima, Saba, Associate Professor
PhD, Binghamton University

Social Work

Ferguson, Aidan, Assistant Professor
PhD, Florida State University

Philosophy

Fields, Gregory P., Professor
PhD, University of Hawaii

Educational Leadership

Fine, Cherese, Assistant Professor
PhD, Clemson University

Psychology

Finley, Jason, Assistant Professor
PhD, University of Illinois at Urbana Champaign

Fisher, David, Assistant Professor
PhD, DePaul University

Public Administration and Policy Analysis

Foster, John M., Assistant Professor
PhD, University of Kentucky

Curriculum and Instruction

Foster, Susan, Assistant Professor
, Southern Illinois University Carbondale

Biological Sciences

Fowler, Thomas J., Associate Professor
PhD, The Ohio State University

Primary Care and Health Systems Nursing

Frazier, Mary, Assistant Professor
, St. Louis University

Sociology and Criminal Justice Studies

Frey-Spurlock, Connie D., Associate Professor
PhD, University of Nebraska at Lincoln

Historical Studies

Frick, Carole C., Professor
PhD, University of California, Los Angeles

Civil Engineering

Fries, Ryan N., Professor
PhD, Clemson University

Primary Care and Health Systems Nursing

Frost, Erica, Assistant Professor
PhD, University of Northern Colorado

Computer Science

Fujinoki, Hiroshi, Professor
PhD, University of South Florida

Primary Care and Health Systems Nursing

Gaehle, Kay E., Associate Professor
PhD, Saint Louis University

Computer Science

Gamage, Thoshitha, Assistant Professor
PhD, Missouri University of Science and Technology

Physics

Garcia, Hernando, Associate Professor

PhD, New Jersey Institute of Technology and Rutgers; MSc, Rutgers

Family Health and Community Health Nursing

Garner, Myjal, Assistant Professor
DNP, Maryville University

Art and Design

George, Jayashree, Assistant Professor
ARTD

Chemistry

Ghosh, Debanjana, Assistant Professor
PhD, Jadavpur University

Art and Design

Goebl-Parker, Elizabeth (Shelly) M., Associate Professor
MSW, Washington University

Music

Gomez-Prada, Ruben, Assistant Professor
PhD, University of Nebraska-Lincoln

Family Health and Community Health Nursing

Gopalan, Chaya, Associate Professor
PhD, University of Glasgow

Construction

Gordon, Christopher B., Professor
PhD, Carnegie-Mellon University

Criminal Justice Studies

Gorislavsky, Ekaterina, Assistant Professor
PhD, University of Missouri-St.Louis

Accounting

Gross, Andrew D., Associate Professor
PhD, University of Arkansas

Political Science

Guehlstorf, Nicholas P., Professor
PhD, Purdue University

Applied Health

Guilford, Brianne L., Associate Professor
PhD, University of Kansas Medical Center

Computer Science

Gultepe, Eren, Assistant Professor
PhD, University of Ontario Institute of Technology

English Language and Literature

Gurfinkel, Helena, Associate Professor
PhD, Tufts University

Management and Marketing

Hair, Michael L., Assistant Professor
PhD, Georgia Institute of Technology

Educational Leadership

Hall, Candace, Assistant Professor
EdD, Maryville University

Physics

Hamad, Abdullatif Y., Professor
PhD, Oklahoma State University

Curriculum and Instruction

Hamann, Kira, Assistant Professor
EdD, Illinois State University

Geography

Hanlon, James A., Associate Professor
PhD, University of Kentucky

Theater and Dance

Harper, Charles R., Professor
MFA, University of Washington

Historical Studies

Harris, Jessica C., Associate Professor

PhD, Cornell University

Applied Health

Harville II, Cedric, Assistant Professor
PhD, University of Florida

Psychology

Hawkins, Carlee, Assistant Professor
PhD, University of Virginia

Management and Marketing

Hayek, Mario, Professor
PhD, University of Mississippi

Sociology and Criminal Justice Studies

Heil, Erin C., Associate Professor
PhD, University of Illinois at Chicago

English Language and Literature

Henderson, Brian R., Associate Professor
PhD, University of South Carolina

Pharmacy Practice

Herndon, Christopher M., Professor
PharmD, Saint Louis College of Pharmacy

Management and Marketing

Hershberger, Edmund K., Associate Professor
PhD, Georgia State University

Mass Communications

Hicks, Gary R., Professor
PhD, The University of Texas at Austin

English Language and Literature

Hildebrandt, Kristine A., Associate Professor
PhD, University of California Santa Barbara

Accounting

Hoelscher, Jamie L., Associate Professor
PhD, University of Nebraska

Art and Design

Holder, Dan, Assistant Professor
MFA, Southern Illinois University Edwardsville

Pharmacy Practice

Hookstra, Jennifer, Professor
PharmD, University of Colorado School of Pharmacy

Electrical and Computer Engineering

Hossain, Mousam, Assistant Professor
PhD, University of Central Florida

Educational Leadership

Houston, Derek, Associate Professor
PhD, University of Illinois at Urbana Champaign

Art and Design

Clinger, Aimee M., Assistant Professor
MFA, University of Kansas

Geography

Hu, Shunfu, Professor
PhD, University of Georgia

Civil Engineering

Huang, Jianwei, Associate Professor
PhD, Syracuse University

Biological Sciences

Winn, Amy M., Assistant Professor
PhD, University of Wisconsin-Madison

Geography

Hume, Susan E., Associate Professor
PhD, University of Oregon

Psychology

Hupp, Stephen D., Professor
PhD, Louisiana State University

Public Administration and Policy Analysis

Huyck, Nancy L., Associate Professor

DPA, University of Illinois - Springfield

Mass Communications

Ibroscheva, Elza, Professor
PhD, Southern Illinois University Carbondale

Family Health and Community Health Nursing

Inboden, Annie, Assistant Professor
DNP, University of Alabama

Historical Studies

Jack, Bryan M., Associate Professor
PhD, Saint Louis University

Computer Management and Information Systems

Jacks, Tim F., Associate Professor
PhD, University of North Carolina at Greensboro

Economics and Finance

Jategaonkar, Shrikant P., Associate Professor
PhD, The University of Arizona

Psychology

Jenkins, Diana, Assistant Professer
PhD, Arizona State University

Family Health and Community Health Nursing

Jennings, Greg, Assistant Professor
DNP, Southern Illinois University Edwardsville

Psychology

Jewell, Jeremy D., Professor
PhD, University of Texas

Economics and Finance

Jia, Jingyi J., Associate Professor
PhD, Temple University

Mathematics and Statistics

Jiang, Yi, Assistant Professor
PhD, Iowa State University

Foreign Languages and Literature

Joaquin, Florido Berrocal, Associate Professor
PhD, Johns Hopkins University

English Language and Literature

Johnson, Matthew S. S., Professor
PhD, Indiana University - Bloomington

Johnson, Heather G. S., Associate Professor
PhD, Indiana University

Teaching and Learning

Johnson, Brian W., Associate Professor
PhD, Emory University

Chemistry

Jones, Myron W., Assistant Professor
PhD, University of Oklahoma

Social Work

Jones, Ariel, Assistant Professor
PhD, Saint Louis University

Historical Studies

Jordan, Thomas, Associate Professor
PhD, University of Illinois - Urbana-Champaign

Mass Communications

Kapatamoyo, Musonda, Associate Professor
PhD, The Ohio University

Physics

Kaplan, David H., Associate Professor
PhD, Cornell University

Mechanical and Industrial Engineering

Karacal, S. Cem, Dean
PhD, Oklahoma State University

Electrical and Computer Engineering

Kaur, Amardeep, Assistant Professor

PhD, Missouri University of Science and Technology

Management and Marketing

Kim, Sungho, Associate Professor
PhD, The Ohio State University

Teaching and Learning

Kirk, Stacie M., Professor
PhD, University of Kansas

Applied Health

Kirk, Erik P., Professor
PhD, University of Kansas

Klein, Nicole A., Professor
PhD, University of Texas, Austin

Electrical and Computer Engineering

Klingensmith, Jon, Assistant Professor
PhD, Case Western Reserve University

Applied Health

Klopfenstein, Marie I., Associate Professor
PhD, University of Louisiana at Lafayette

Educational Leadership

Knowlton, David S., Professor
EdD, The University of Memphis

Mechanical and Industrial Engineering

Ko, Hoo Sang, Associate Professor
PhD, Purdue University

Library and Information Sciences

Kohlburn, Joseph, Assistant Professor
MLS, University of Missouri

Pharmaceutical Sciences

Kolling, William M., Associate Professor
PhD, University of Iowa

Computer Management and Information Systems

Kolte, Prajakta, Assistant Professor
PhD, University of Memphis

Pharmaceutical Sciences

Kontoyianni, Maria, Professor
PhD, University of North Carolina

Anthropology

Kooiman, Susan M., Assistant Professor
PhD, Michigan State University

Music

Korak III, John, Professor
DMA, University of North Texas

Koukos, Nikolaos Myrogiannis, Assistant Professor
DMA, James Madison University

Philosophy

Krag, Erik R., Assistant Professor
PhD, University of Tennessee

Biological Sciences

Krajniak, Kevin G., Professor
PhD, University of Florida

English Language and Literature

Kryah, Joshua, Assistant Professor
PhD, University of Nevada

Environmental Science

Kusi, Joseph, Assistant Professor
PhD, East Tennessee State University

Mechanical and Industrial Engineering

Kweon, Soondo, Associate Professor
PhD, University of Illinois at Urbana - Champaign

Pharmaceutical Sciences

Kwon, Guim, Professor
PhD, University of Michigan

English Language and Literature

LaFond, Larry L., Professor
PhD, University of South Carolina

Philosophy

Larkin, William S., Associate Professor
PhD, University of California - Santa Barbara

Foreign Languages and Literature

Lavallee, Thomas, Associate Professor
PhD, Washington University

Electrical and Computer Engineering

LeAnder, Robert W., Associate Professor
PhD, University of Illinois at Chicago

Mechanical and Industrial Engineering

Lee, H. Felix, Professor
PhD, University of Michigan

Biological Sciences

Lee, Danielle, Assistant Professor
PhD, University of Missouri - St. Louis

Mathematics and Statistics

Leem, Koung Hee, Professor
PhD, University of Iowa

Mass Communications

Leith, Alex P., Assistant Professor
PhD, Michigan State University

Li, Shi, Assistant Professor
PhD, Indiana University - Bloomington

Biological Sciences

Liebl, Faith L. W., Associate Professor
PhD, University of Illinois at Chicago

Lin, Zhi-Qing, Professor
PhD, McGill University

Philosophy

Littmann, Greg, Associate Professor
PhD, University of North Carolina - Chapel Hill

Applied Communication Studies

Liu, Min, Associate Professor
PhD, North Dakota State University

Educational Leadership

Liu, Yuliang, Professor
PhD, Texas A & M University

Geography

Locke, Sharon M., Associate Professor
PhD, University of Minnesota

Educational Leadership

Logue, Jennifer L., Associate Professor
PhD, University of Illinois at Urbana - Champaign

Mechanical and Industrial Engineering

Lotfi, Nima, Assistant Professor
PhD, Missouri University of Science & Technology

Management and Marketing

Love, Mary Sue, Associate Professor
PhD, University of Missouri - Columbia

Electrical and Computer Engineering

Lozowski, Andrzej G., Professor
PhD, University of Louisville

Chemistry

Lu, Yun, Associate Professor
PhD, Nankai University, China

Primary Care and Health Systems Nursing

Luebbert, Rebecca A., Assistant Professor
PhD, Saint Louis University

Philosophy

Lueck, Bryan L., Associate Professor

PhD, The Pennsylvania State University

Pharmacy

Luer, Mark S., Dean
PhD, St. Louis College of Pharmacy

Biological Sciences

Luesse, Darron R., Associate Professor
PhD, Indiana University

Chemistry

Luesse, Sarah B., Associate Professor
PhD, Indiana University

Mechanical and Industrial Engineering

Luo, Albert C. J., Distinguished Research Professor
PhD, University of Manitoba-Winnipeg, Canada

Anthropology

Lutz, Nancy M., Associate Professor
PhD, University of California at Berkeley

Primary Care and Health Systems Nursing

Lyerla, Frank, Associate Professor
PhD, Saint Louis University

Applied Health

Ma, Alice, Assistant Professor
PhD, University of North Carolina Greensboro

Sociology and Criminal Justice Studies

Maatita, Florence C., Associate Professor
PhD, University of Connecticut

Computer Management and Information Systems

Macharia, Mary, Assistant Professor
PhD, University of Arkansas

Management and Marketing

Madupalli, Ramana K., Associate Professor
PhD, Georgia State University

Historical Studies

Manuel, Jeffrey T., Associate Professor
PhD, University of Minnesota

Sociology and Criminal Justice Studies

Mares, Dennis M., Associate Professor
PhD, University of Missouri - St. Louis

Educational Leadership

Marianno, Latrice, Assistant Professor
PhD, University of Delaware

Teaching and Learning

Marlette, Stephen M., Professor
PhD, Kansas State University

Martin, Barbara, Assistant Professor
EdD, Illinois State University

Geography

Martinez, Adriana E., Professor
PhD, University of Oregon

Computer Science

Matta, John, Assistant Professor
PhD, Southern Illinois University Carbondale

Geography

McCarragher, Shannon, Assistant Professor
PhD, Northern Illinois University

Biological Sciences

McCracken, Vance J., Associate Professor
PhD, University of Illinois at Urbana - Champaign

Applied Dental Medicine

McCracken, Barbara, Assistant Professor
PhD, University of Illinois

Library and Information Sciences

McDavid, Shelly, Associate Professor
MLS, Emporia State University

Psychology

McKenney, Elizabeth L. W., Associate Professor
PhD, University of Florida

Computer Science

McKenney, Mark A., Associate Professor
PhD, University of Florida

Pharmaceutical Sciences

McPherson, Timothy B., Professor
PhD, Purdue University

Accounting

Mi, Danya, Assistant Professor
PhD, Georgia State University

Historical Studies

Miller, Jennifer A., Associate Professor
PhD, Rutgers University

Milsk Fowler, Laura E., Associate Professor
PhD, Loyola University

Mass Communications

Mishra, Suman, Associate Professor
PhD, Temple University

Music

Mishra, Michael, Professor
DA, University of Northern Colorado

Mechanical and Industrial Engineering

Molki, Majid, Distinguished Research Professor
PhD, University of Minnesota

Applied Health

Mora, Katherine, Assistant Professor
PhD, University of Arizona

Civil Engineering

Morgan, Susan, Professor
PhD, Clemson University

Teaching and Learning

Msengi, Shadrack G., Associate Professor
EdD, University of Northern Iowa

Applied Communication Studies

Nastasia, Sorin, Associate Professor
PhD, University of North Dakota

Economics and Computer Science

Nauroth, Markus, Assistant Professor
Ph.D, Technical University Munich, Germany

Pharmaceutical Sciences

Nieto, Marcelo J., Professor
PhD, National University of Cordoba, Argentina

Art and Design

Nwacha, Barbara J., Associate Professor
MFA, The University of Iowa

Criminal Justice Studies

Oberweis, Trish, Professor
PhD, Arizona State University

Teaching and Learning

O'Donnell, Barbara D., Professor
EdD, University of North Dakota

Mechanical and Industrial Engineering

Onal, Sinan, Associate Professor
PhD, University of South Florida

Social Work

OBrien, Gerald V., Associate Professor
PhD, University of Illinois - Urbana-Champaign

Accounting

Ortegren, Marc A., Assistant Professor
PhD, Texas Tech University

Civil Engineering

Osouli, Abdolreza, Associate Professor

PhD, University of Illinois at Urbana-Champaign

Art and Design

Page, Joseph A. M., Assistant Professor
MFA, Alfred University

Civil Engineering

Panahshahi, Nader, Professor
PhD, Cornell University

Applied Dental Medicine

Pandarakalam, Cyril, Assistant Professor
MDS, Government Dental College, Calicut

Applied Health

Panico, James V., Associate Professor
PhD, University of Nebraska - Lincoln

Art and Design

Park, Sangsook, Associate Professor
MFA, MA, EdD, University of Washington, University of Illinois at Urbana-Champaign

Management and Marketing

Patil, Ripinka, Assistant Professor
PhD, Louisiana State University

Teaching and Learning

Patton-Jordan, Jodi, Assistant Professor
EdD, Saint Louis University

Historical Studies

Paulett, Robert E., Associate Professor
PhD, The College of William and Mary

Geography

Pearson, Randall S., Professor
PhD, Indiana State University

Philosophy

Pearson, Christopher H., Associate Professor
PhD, University of Washington - Seattle

Mathematics and Statistics

Pelekanos, George, Professor
PhD, University of Delaware

English Language and Literature

Pendergast, John S., Professor
PhD, University of Missouri

Primary Care and Health Systems Nursing

Perez, Albertina A., Assistant Professor
PhD, Saint Louis University

Sociology and Criminal Justice Studies

Petrocelli, Matthew E., Professor
PhD, Arizona State University

Psychology

Pettibone, Jonathan C., Professor
PhD, University of South Carolina

Mass Communications

Poepsel, Mark A., Assistant Professor
PhD, University of Missouri - Columbia

Psychology

Polk, Margaret, Assistant Professor
PhD, University of Oklahoma

Pomerantz, Andrew M., Professor
PhD, Saint Louis University

Art and Design

Poole, Katherine M., Associate Professor
PhD, Rutgers, The State University of New Jersey

Primary Care and Health Systems Nursing

Popkess, Ann M., Assistant Professor
PhD, Indiana University

Computer Management and Information Systems

Powell, Anne L., Professor
PhD, Indiana University

Pratap Singh, Shivendu, Assistant Professor
PhD, University of Pittsburgh

Management and Marketing

Prats Morral, Maria, Assistant Professor
PhD, University of Navarra

Teaching and Learning

Pryor, Caroline R., Professor
EdD, Arizona State University

Civil Engineering

Qi, Yan, Associate Professor
PhD, Louisiana State University

Computer Science

Quinones, Rubi, Assistant Professor
PhD, University of Nebraska-Lincoln

Geography

Rahman, Sanoar, Assistant Professor
PhD, Purdue University

English Language and Literature

Ramaswamy, Anushiya, Professor
PhD, University of Nevada-Reno

Rambsy, Howard, Professor
PhD, Pennsylvania State University

Ramon, Donavan, Assistant Professor
PhD, Rutgers University

Accounting

Reed, Brad J., Professor
PhD, University of Arizona

English Language and Literature

Reed, Cindy, Assistant Professor
PhD, Saint Louis University

Family Health and Community Health Nursing

Reed, Amy, Assistant Professor
PhD, University of Missouri Columbia

Educational Leadership

Reeves, Alison G., Associate Professor
PhD, University of Arizona

Philosophy

Reiheld, Alison N., Associate Professor
PhD, Michigan State University

Biological Sciences

Retzlaff, William A., Professor
PhD, Clemson University

Political Science

Rice, Laurie L., Professor
PhD, University of California, San Diego

Psychology

Ro, Eunyoe, Associate Professor
PhD, University of Iowa

Art and Design

Robb, Megan A., Associate Professor
MA, The George Washington University

Historical Studies

Robles, Manuel, Assistant Professor
PhD, University of Pittsburgh

Applied Health

Ross-Stewart, Lindsay, Associate Professor
PhD, University of North Dakota

Historical Studies

Ruckh, Eric, Associate Professor
PhD, University of California - Irvine

English Language and Literature

Ruff, Nancy K., Professor
PhD, Princeton University

Physics

Sabby, Jeffrey A., Associate Professor
PhD, University of Arkansas - Fayetteville

Electrical and Computer Engineering

Sakib, Ashiq, Assistant Professor
PhD, North Dakota State University

Applied Health

Sauerwein, Allison, Assistant Professor
PhD, University of Kansas

English Language and Literature

Savoie, John R., Professor
PhD, Yale University

Music

Schapman, Marc T., Associate Professor
DM, Indiana University

Schmidt, Garrett R., Assistant Professor
MM, University of Rochester

Theater and Dance

Schmitz, Johanna L., Professor
PhD, University of California at Davis

Pharmaceutical Sciences

Schober, Joseph M., Professor
PhD, University of Illinois - Chicago

Philosophy

Schunke, Matthew P., Associate Professor
PhD, Rice University

Psychology

Segrist, Dan J., Professor
PhD, Southern Illinois University Carbondale

Applied Communication Studies

Sellnow-Richmond, Scott, Assistant Professor
PhD, Wayne State University

Mechanical and Industrial Engineering

Shavezipur, Mohammad, Assistant Professor
PhD, University of Waterloo, Canada

Chemistry

Shaw, Michael J., Professor
PhD, The University of British Columbia, Canada

Psychology

Shimizu, Mitsuru, Associate Professor
PhD, State University of New York at Buffalo

Accounting

Sierra, Gregory E., Associate Professor
PhD, Washington University

Pharmaceutical Sciences

Siganga, Walter, Professor
PhD, University of Maryland - Baltimore

Foreign Languages and Literature

Simms, Douglas P. A., Professor
PhD, University of Texas - Austin

Educational Leadership

Slater, Graham, Associate Professor
PhD, University of Utah

Applied Health

Smith, Bryan K., Associate Professor
PhD, University of Missouri - Columbia

Educational Leadership

Snipes, JT, Assistant Professor
PhD, Indiana University

Family Health and Community Health Nursing

Sobczak, Bernadette, Assistant Professor
DNP, Maryville University

English Language and Literature

Soderberg, Laura, Assistant Professor
PhD, University of Pennsylvania

Management and Marketing

Soloman, Stanislaus Simon, Assistant Professor
PhD, University of Missouris - St.Louis

Mathematics and Statistics

Song, Myung Sin, Professor
PhD, University of Iowa

Accounting

Song, Xiaoxiao, Assistant Professor
PhD, University of Texas at Arlington

Chemistry

Spudich, Jr., Thomas, Professor
PhD, Northern Illinois University

Historical Studies

Stacy, Jason E., Professor
PhD, Loyola University

Mathematics and Statistics

Staples, G. Stacey, Professor
PhD, Southern Illinois University Carbondale

Nurse Anesthesiology

Stein, Kevin, Assistant Professor
DNAP, Middle Tennessee School of Anesthesiology

Sociology and Criminal Justice Studies

Stevens, Corey, Assistant Professor
PhD, University of Akron

Art and Design

Strand, Laura, Professor
BFA, MFA, Georgia State University, University of Kansas

Stumbras, Michael, Assistant Professor
MFA, Louisiana State University

Chemistry

Sumita, Minako, Assistant Professor
PhD, Wayne State University

Music

Swagler, Jason A., Associate Professor
MM, Southern Illinois University Edwardsville

Social Work

Swanke, Jayme R., Associate Professor
PhD, Southern Illinois University Carbondale

Teaching and Learning

Swartz, Rebecca, Assistant Professor
PhD, University of Illinois at Urbana Champaign

Management and Marketing

Sweida, Gloria, Assistant Professor
PhD, Claremont Graduate University

Construction

Tayeh, Ralph, Assistant Professor
PhD, University of Florida

Public Administration and Policy Analysis

Taylor, Morris A., Associate Professor
PhD, Saint Louis University

Historical Studies

Taylor, Tandra, Assistant Professor
PhD, Saint Louis University

Nurse Anesthesiology

Tebbenkamp, Jenna L., Assistant Professor
DNP, Southern Illinois University Edwardsville

Psychology

Bradley, Rachel, Assistant Professor
PhD, Saint Louis University

Biological Sciences

Theodorakis, Christopher W., Professor

PhD, University of Tennessee

Historical Studies

Thomason, Allison K., Professor
PhD, Columbia University

Educational Leadership

Thomeczek, Melissa A., Associate Professor
PhD, Indiana State University

Geography

Tianyu, Li, Assistant Professor
PhD, Mississippi State University

Economics and Finance

Tracey, Marlon, Assistant Professor
PhD, Binghamton University

Music

Truckenbrod, Emily, Associate Professor
DMA, The University of Iowa

Civil Engineering

Ullah, Saad, Assistant
Ph.D, George Mason University, Fairfax

Applied Health

Vanderbunt, Erin, Assistant Professor
EdD, A.T. Still University

Growth, Development and Structure

VanPutte, Cinnamon, Associate Professor
PhD, Texas A&M University

Applied Communication Studies

VanSlette, Sarah H., Associate Professor
PhD, Purdue University

Physics

Vardanyan, Karen, Associate Professor
PhD, State Engineering University of Armenia

Computer Management and Information Systems

Vithayathil, Joe, Assistant Professor
PhD, University of California Irvine

Mathematics and Statistics

Voepel, Tammy M., Associate Professor
PhD, University of Missouri - Columbia

English Language and Literature

Vogrin, Valerie A., Professor
MFA, University of Alabama

Chemistry

Voss, Eric J., Professor
PhD, Northwestern University

Electrical and Computer Engineering

Wang, Yadong, Assistant Professor
PhD, University of Oklahoma

Mechanical and Industrial Engineering

Wang, Fengxia, Associate Professor
PhD, Purdue University

Applied Health

Webb, Benjamin L., Assistant Professor
PhD, Pennsylvania State University

Chemistry

Wei, Chin-Chaun, Professor
PhD, City University of New York

Computer Science

Weinberg, Jerry B., Professor
PhD, Vanderbilt University

Growth, Development and Structure

Welch, Dan B., Assistant Professor
PhD, University of California, Riverside

Construction

Werner, Anne M., Associate Professor
PhD, University of Illinois

Chemistry

Wiediger, Susan D., Professor
PhD, Rice University

Biological Sciences

Williams, Jason B., Associate Professor
PhD, Miami University

Computer Management and Information Systems

Williams, Clay K., Professor
PhD, University of Georgia

Pharmaceutical Sciences

Witt, Kenneth A., Associate Professor
PhD, University of Arizona

Family Health and Community Health Nursing

Wittler, Ashley, Assistant Professor
DNP, Southern Illinois University Edwardsville

Applied Health

Wooten, Joshua S., Associate Professor
PhD, Texas Womans University

Applied Communication Studies

Wrobbel, Eric D., Professor
PhD, University of Texas at Austin

Applied Health

Xin, Huaibo, Associate Professor
DrPH, University of North Carolina at Greensboro

Mechanical and Industrial Engineering

Yan, Terry X., Professor
PhD, University of California, Davis

Primary Care and Health Systems Nursing

Yancey, Valerie J., Associate Professor
PhD, Saint Louis University

Economics

Yang, Xueqing, Assistant Professor
PhD, University of Miami

Biological Sciences

Yoon, Kyong-Sup, Assistant Professor
PhD, University of Massachusetts - Amherst

Electrical and Computer Engineering

York, Timothy E., Assistant Professor
PhD, Washington University

Mass Communications

Yu, Jason, Associate Professor
PhD, The University of North Carolina at Chapel Hill

Educational Leadership

Yu, Tianlong, Professor
EdD, State University of New York at Binghamton

Computer Science

Yu, Xudong W., Associate Professor
PhD, Vanderbilt University

Management and Marketing

Yu, Gwangjae, Assistant Professor
PhD, Arizona State University

Construction

Yuan, Chenxi, Assistant Professor
PhD, Purdue University

Management and Marketing

Zeng, Yuping, Associate Professor
PhD, Peking University

Mechanical and Industrial Engineering

Zhang, Mingshao, Assistant Professor

PhD, Stevens Institute of Technology

Industrial Engineering

Zhang, Siqi, Assistant Professor
PhD, Pennsylvania State University

Geography

Zhou, Bin, Professor
PhD, University of Georgia

Civil Engineering

Zhou, Jianpeng, Professor
PhD, University of British Columbia

Anthropology

Zimmerman, Julie Z., Professor
PhD, New York University

Applied Health

Zuercher, Jennifer, Assistant Professor
PhD, University of North Carolina - Chapel Hill

Management and Marketing

Kreugel, Jamil, Assistant Professor
PhD, Old Dominion University

Psychology

Slaten, Christopher, Professor
PhD, University of Wisconsin-Milwaukee

Accounting

Mi, Danya, Assistant Professor
PhD, Georgia State University

Healthcare Informatics and Nursing

Danks, Jamie, Lecturer
MSHI, Southern Illinois University Edwardsville

Primary Care and Health Systems Nursing

Chapman, Demetrius Cianci, Assistant Professor
PhD, University of Mexico

Family Health and Community Health Nursing

Kurilla, Nancy, Assistant Professor
PhD, Saint Louis University. St. Louis, MO

Accounting (ACCT)

ACCT 401 - Advanced Financial Accounting - 3 (FMS)

Accounting principles and procedures related to special entities, including: governmental units, partnerships, and multi-corporate entities; and foreign transactions. Primary emphasis on business combinations and consolidated financial statements.

Prerequisites: ACCT 302.
Restrictions: Must be enrolled in one of the following Majors: Accountancy,Accountancy

ACCT 421 - Advanced Taxation - Individual - 3 (MS)

U.S. federal taxes for individuals. Includes compliance, tax research and tax planning strategies for individual taxpayers.

Prerequisites: ACCT 321 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Accountancy,Accountancy

ACCT 431 - Principles of Auditing - 3 (MS)

Auditor's decision process; understanding client's business; development of working papers, audit tests, statistical sampling applications, and EDP systems; preparation of audit report and current pronouncements.

Prerequisites: ACCT 302 AND ACCT 315.
Restrictions: Must be enrolled in one of the following Majors: Accountancy,Accountancy

ACCT 441 - Data Analytics for Accounting - 3 (FS)

A user approach to accounting data analytics. Internal controls. Creating, importing, safeguarding, exporting and analyzing data. Data analysis for decision making using various software platforms.

Prerequisites: ACCT 315 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Accountancy,Accountancy, May not be enrolled as the following Levels: Professional, Must be enrolled in one of the following Colleges: School of Business

ACCT 490 - Independent Study in Accounting - 1 to 6 (M)

Topical areas in greater depth than regularly titled courses permit; individual or small group readings or research projects. May be repeated up to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Majors: Accountancy,Accountancy
Registration Consent: Dept Chair-Program Director

ACCT 510 - Accounting and Its Environment - 3 (FS)

Includes a review of contemporary issues impacting the accounting profession. Topics may include trends in the practice of accounting like data analytics, International Financial Reporting Standards, or recent changes in US Generally Accepted Accounting Standards. Prerequisite: full admission to the MSA program; completion of Acct 303 or equivalent.

Prerequisites: ACCT 303 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ACCT 524 - Accounting for MBAs - 3 (FMS)

Understanding and analysis of financial and managerial accounting information to enable internal/external users to make informed business decisions.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ACCT 531 - Seminar in Financial Accounting Theory - 3 (S)

Theoretical examination of measurement and reporting issues related to external financial reporting.

Prerequisites: ACCT 303.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

ACCT 550 - Tax Research - 3 (FS)

Advanced study in tax research; analyze and

discover solutions and alternatives to tax problems and refine technical problem-solving and communication skills.

Prerequisites: ACCT 321.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

ACCT 552 - State and Local Tax - 3 (S)

A graduate study of the 3 major types of state taxation: State Income tax, State Sales and Use tax and Property tax. State tax planning and compliance will be studied.

Prerequisites: Graduate level ACCT 550 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ACCT 553 - Taxation of Flow-Through Entities - 3 (F)

Federal income taxation of flow-through entities; partnerships, corporations, and limited liability corporations.

Prerequisites: ACCT 321.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

ACCT 556 - Personal Tax Planning - 3 (S)

Concepts of statutory, regulatory, and judicial rules relating to transfer taxes and income taxes as they affect family tax planning; non-tax aspects of transactions also will be examined.

Prerequisites: ACCT 321.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

ACCT 557 - Corporate Taxation - 3 (M)

Topics include the policy motivations, technical rules, and management of decision-making implications of federal income taxation of corporations and their shareholders.

Prerequisites: ACCT 321.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

ACCT 561 - Seminar in Advanced Auditing Topics - 3 (FS)

Role, environment, and philosophy of auditing; legal, ethical, and moral issues; problems of audit planning, sampling, and testing considerations; examination of audit research.

Prerequisites: ACCT 431.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

ACCT 565 - Internal Auditing - 3 (FM)

Nature of internal auditing; operational auditing.

Prerequisites: ACCT 431.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

ACCT 567 - Information Systems Auditing and Assurance - 3

Risk assessment and assurance methods used in an IT environment.

Prerequisites: ACCT 431.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

ACCT 580 - Research in Accounting - 3 (FMS)

Examination of accounting research methodologies and issues. Completion of a major individual research project resulting in a written report.

Restrictions: Must be enrolled in one of the following Majors: Accountancy,Accountancy, Must be enrolled in one of the following Levels: Graduate

ACCT 591A - Advanced Public Accounting—Audit and Attestation - 1.5

This course covers topics related to the Auditing and Attestation portion of the Uniform CPA Examination.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Registration Consent: Instructor and Advisor

ACCT 591B - Advanced Public Accounting—Financial Accounting and Reporting - 1.5

This course covers topics related to the financial accounting and reporting portion of the Uniform CPA Examination.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

ACCT 591C - Advanced Public Accounting—Taxation and Regulation - 1.5

This course covers topics related to the taxation and regulation portion of the Uniform CPA Examination.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

ACCT 591D - Advanced Public Accounting—Selected Discipline - 1.5

This course covers topics related to a selected discipline portion of the Uniform CPA Examination.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

ACCT 596 - Professional Accounting Experience - 3 (FS)

The student works in an accounting internship or accounting position that requires skills related to the graduate accounting program. The firm must sponsor the position. The supervisor's credentials will typically include a graduate accounting degree, CPA, other accounting designations or commensurate accounting experience.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

ACCT 597 - Independent Study in Accounting - 3 (S)

Topics in greater depth than regularly titled courses permit; individuals or small groups may work with assigned faculty. May be repeated to a maximum of 3 hours.

Restrictions: Must be enrolled in one of the following Majors: Accountancy,Accountancy, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

Applied Communication Studies (ACS)

ACS 403 - Organizational Communication Theory and Applications - 3 (F)

Diagnosing communication problems in organizations and implementing solutions. Research methods and theoretical applications in organizational communication.

Attributes: BSS
Prerequisites: SPC 203 OR ACS 203.

ACS 411 - Analysis of Political Communication - 3

Role of communication in politics. Topics include speech preparation, delivery, image promotion, public opinion formation, lobbying behavior as factors in political communication strategies.

Attributes: BICS, HUM

ACS 413 - Case Studies in Public Relations - 3 (FS)

Strategies and critical analyses of ethical issues and approaches in the social and political atmosphere of public relations.

Attributes: BICS, HUM
Prerequisites: ACS 213 Minimum Grade of C OR ACS 203 Minimum Grade of C.

ACS 416 - International Public Relations - 3

Upper level course providing opportunities to gain hands-on experience in public relations by undertaking and or reflecting on study abroad experiences. Examination of the impact of cultural and socio-political differences on public relations practices.

Attributes: BICS, EGC, EREG, ERGU

ACS 419 - Special Topics in Speech Communication - 3

Variable content course emphasizing pertinent contemporary communication issues. May be repeated for total of 9 hours as long as no topic is repeated, 3 of which may count toward an ACS major. Contact the Department of Applied Communication Studies for current topic.

Attributes: HUM

ACS 425 - Communicative Aspects of Death and Dying - 3

This course focuses on communicative aspects of death and dying. This includes the bereavement process, grief work, coping, and components of social support.

Attributes: BSS
Registration Consent: Advisor

ACS 426 - Communication and Emotion - 3

Introduces a broad spectrum of concepts, processes, and communication theories on emotions, cognitions, and behaviors and focuses on applying these to daily interactions.

Attributes: BSS
Registration Consent: Advisor

ACS 430 - Persuasion and Social Influence - 3 (S)

The study of contemporary persuasion theories and research toward a clear understanding of the process of social influence; application of concepts in analysis of persuasive messages.

Attributes: BICS, HUM

ACS 431 - Public Relations Visual Communication - 3 (M)

The study of perceptual and cognitive aspects of visual communication useful for awareness and promotion campaigns. Focus on visual literacy and hands-on opportunities to analyze visuals.

Attributes: BICS, EREG, ERGU

ACS 432 - Social Media for Public Relations - 3 (MSaF)

Social Media use and measurement in Public Relations campaigns.

Attributes: BICS

ACS 433 - Language and Speech Communication - 3

Role and impact of language in speech communication development, processes and behavior. Relational development and conflict resulting from differences in language usage.

Attributes: BICS, HUM

ACS 434 - Nonverbal Communication - 3 (S)

Nonverbal theories across varied contexts. Means of transmission and reception of nonverbal cues. Relationship of nonverbal and verbal behavior.

Attributes: BICS, HUM

ACS 500 - Communication Theory & Qualitative Research Methods - 3 (F)

Various types of approaches to human communication, emphasizing qualitative concepts devised to describe, explain, predict and control, or interpret and critique communicative behaviors and contexts.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ACS 501 - Communication Theory and Quantitative Research Methods - 3 (S)

Various types of approaches to human communication, emphasizing quantitative concepts devised to describe, explain, predict and control, or interpret and critique communicative behaviors and contexts.

Prerequisites: ACS 500 Minimum Grade of B.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ACS 509 - Special Topics in Communication Theory & Research - 3

Variable content course emphasizing contemporary issues in communication theory construction and research methods. May be repeated for a total of 9 hours if topics are not repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 510 - Seminar in Group Communication - 3

Theory and research in the various content areas of small group communication study: decision making, leadership, cohesiveness, norms, task and socio-emotional dimensions of group behavior; interactions among groups with differing values, interests, and needs.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 511 - Seminar in Intercultural Communication - 3

Applications of communication theories and models in the study of cooperation and conflict between and among individuals of different cultures.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 520 - Seminar in Interpersonal Communication - 3

Theory and research relevant to formation, development, maintenance and termination of two-person relationships. Interpersonal attraction, styles and patterns.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ACS 521 - Seminar in Computer-Mediated Communication - 3

This course focuses on relationships and groups formed through computer-mediated interpersonal communication as well as how CMC functions in various contexts (interpersonal, educational, organizational, commerce).

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ACS 522 - Seminar in Family Communication - 3

This seminar will take an in-depth look at family communication concepts, theories, skills, and research findings in a variety of family contexts.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 530 - Survey of Health Communication Theory and Research - 3 (aF)

Overview of health communication, covering theories and research in various health contexts, ranging from interpersonal settings to public health campaigns.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ACS 531 - Culture, Health, and Communication - 3 (M)

Explores the interplay between culture and health. More specifically, it examines the impact of culture on health decision making and health communicative behaviors.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ACS 532 - Seminar in Health Communication Campaigns - 3

Examination of the role of communication in public health campaigns and how these campaigns are designed, implemented, and evaluated.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ACS 533 - Seminar in Provider/Caregiver-Patient Communication - 3

Relational communication theory, research, and practice in health care delivery, health education and promotion, and psychological well being.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ACS 540 - Survey of Organizational Communication Research - 3 (aF)

Survey of current research.
Leadership/management, performance, motivation, turnover, organizational identification, worker involvement, gender, power, emotions, and work-life balance.

Prerequisites: SPC 403 OR ACS 403.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 541 - Seminar in Organizational Culture - 3

Survey and critique of current theory and research. Analysis of methods used to study cultures, case studies in cultural change, and ethical considerations of organizational intervention.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 542 - Communication Consulting - 3

Principles and techniques of communication consulting. Diagnosis of communication problems; formulating proposals for training and development; conducting workshops; measuring results.

Prerequisites: Graduate level SPC 540 Minimum Grade of C OR Graduate level ACS 540 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ACS 550 - Seminar in Public Relations - 3 (F)

Analysis and criticism of historic and current development of public relations theory. Theory-building approaches; research agendas; worldview constructions; pragmatics of public relations practice.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 551 - Nonprofit Public Relations - 3

Course uses case study approach to engage students in critical examination of strategies employed by public relations practitioners to further the mission/goals of non-profit organizations. Prerequisite: ACS 550 (formerly SPC 550) with minimum grade of C or concurrent enrollment.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 552 - Corporate Social Responsibility - 3

Students will analyze corporate decisions and communication strategies related to the balance between profit-making and social responsibility. Prerequisite: ACS 550 (formerly SPC 550) with minimum grade of C or concurrent enrollment.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 553 - Issues Reputation Management - 3

Students will examine issues, theories, and tools in reputation management and explore ways corporations, non-profits, individuals, and countries control or restore their image after a crisis.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 554 - Ethics in Public Relations and Communication Management - 3

Students will analyze ethical dilemmas of public relations and communication management practices. They will also apply ethical principles to professional decision making in organizational settings.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 557 - International Public Relations - 3

Will prepare for students to become practitioners capable pf successfully functioning on the international market. Students will acquire knowledge needed for understanding public relations in international settings, and assess the similarities and differences between U.S. and international public relations principles and practices.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ACS 560 - Seminar in Speech Education - 3 (F)

Develop instructional skills of preparation,

presentation, and evaluation, and to learn course management skills for instructors of speech communication.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 590 - Individual Research in Applied Communication Studies - 1 to 6 (FS)

Individual advanced research project in selected communication problems. Assignment to be developed in consultation with ACS graduate faculty member prior to enrollment. Only 3 credits apply toward ACS/SPC program of study. Credit variable. May be repeated to a maximum of 6 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

ACS 591 - Internship in Applied Communication Studies - 3 to 9 (aF)

Assignment in a business, government or service organization in which students are provided practical application of concepts acquired in the master's program. Specific details of internships are determined by the students, their graduate committee, and the organizational sponsor may be applied toward the minimum 35 hours required for graduation. Requires Graduate standing, acceptable application packet, acceptance of organizational representative.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

ACS 598 - Applied Project - 1 to 6 (FS)

Applied project on approved topic to satisfy exit requirements. Written proposal and oral defense required. May be repeated to a maximum of 6 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ACS 599 - Thesis - 1 to 6 (FS)

Supervised research on approved topic to satisfy exit requirements. Written proposal and oral defense required. May be repeated to a maximum of 6 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Adult Education (ADED)

ADED 522 - Program Planning in Adult and Continuing Education - 3

Design and evaluation of educational programs; emphasizes needs assessment, planning techniques, and evaluation procedures.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ADED 523 - Curriculum & Instruction in Adult & Continuing Education - 3

Process of designing and conducting learning activities and instruction strategies as they relate to specific curriculum models.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ADED 575 - Individual Research in Adult and Continuing Education - 1 to 3

Selection, investigation, and writing of research topic under supervision of faculty member. May be repeated to a maximum of 3 hours. Prerequisite: consent of instructor.

Anthropology (ANTH)

ANTH 404 - Anthropology and the Arts - 3

Analyzes global cultures' visual and material art forms in museum collections with focus on form, process, meaning, function and value. Prerequisite: Consent of instructor.

Attributes: BSS, EGC

ANTH 405 - Alternative Tourisms - 3

Explores tourism practices, with an emphasis on alternative forms, such as adventure tourism, ecotourism, dark tourism, and ‘staycations’, with emphasis on ethics and sustainability issues.

Attributes: BSS, EGC

ANTH 408 - Anthropological Theory - 3

Development of central ideas and schools of thought in anthropology, and their relevance to anthropological topics and methods today.

Attributes: BHUM
Prerequisites: ANTH 111B Minimum Grade of C.

ANTH 420 - Museum Anthropology - 3

Through case studies and exhibit analysis, this course examines historical developments, theoretical approaches, and contemporary ethical issues in museological approaches to anthropology's four fields. Prerequisite: Consent of instructor.

Attributes: BICS, EUSC
Prerequisites: ANTH 111A Minimum Grade of C OR ANTH 111B Minimum Grade of C.

ANTH 430 - Zooarchaeology - 3

The archaeology of animal remains. Methods and theories for investigating human use of animals in the past. Emphasis on identification of animal bone.

Attributes: BLS, EL
Prerequisites: ANTH 111A AND ANTH 360B.

ANTH 432 - Prehistory of Illinois - 3 (F)

The history and archaeology of Native Americans in Illinois, will include examination of artifacts and artifact casts, and field trips to archaeological sites.

Attributes: BSS

ANTH 435 - Living Cultural Heritage - 3

Exploration of interpretive and promotional strategies of living history, material culture and intangible cultural heritage at house museums and heritage sites in America and internationally.

Attributes: BICS, EUSC, SS

ANTH 436 - Public Archaeology - 3

In-depth exploration of the relationship between archaeology and the public, with an emphasis on experiential learning through outreach and community archaeology project development.

Attributes: BICS
Restrictions: May not be enrolled as the following Levels: Professional

ANTH 438 - Artifact Analysis - 3

Students will learn the dimensions and tenets of archaeological artifact analysis, laboratory analytical skills in a hands-on setting, and the application of various types of analyses to answer archaeological questions.

Attributes: EL

ANTH 467 - Dental Anthropology - 3

Examines the breadth of information provided by the human dentition. Topics include anatomy and physiology, morphology, microstructure, evolution, health, genetics, and forensic aspects of teeth.

Attributes: BLS, EH, EL
Prerequisites: ANTH 360B Minimum Grade of C.

ANTH 468 - Osteopathology - 3

Examines the lives of past populations through analysis of human skeletal remains. Includes diagnosis and evaluation of health, stress, diet, development, degeneration, and skeletal trauma.

Attributes: BLS, EH, EL
Prerequisites: ANTH 360B Minimum Grade of C.

ANTH 469 - Forensic Anthropology Applications - 3

Combined lecture-lab course on human skeletal material analysis, including training in techniques for identifying sex, age, ancestry, trauma, disease, and taphonomic considerations.

Attributes: BLS, EL
Prerequisites: ANTH 369.
Restrictions: May not be enrolled as the following Levels: Graduate

ANTH 473 - Ethnographic Field School - 3 or 6

Students participate in an original field-based research project in linguistic or cultural anthropology directed by the instructor. Emphasizes data collection/analysis/write-up.

Attributes: BSS
Prerequisites: ANTH 111B Minimum Grade of C.
Registration Consent: Instructor

ANTH 474 - Biological Anthropology Field School - 3 or 6

Research design, data collection and analysis in primatology, skeletal biology, forensic anthropology, or paleoanthropology requiring an independent project or participation in joint project.

Attributes: BLS
Prerequisites: ANTH 111A Minimum Grade of C.
Registration Consent: Instructor

ANTH 475 - Archaeological Field School - 3 or 6

Students engage in original archaeological research directed by instructor. Methods of archaeological survey and excavation, learned through active participation in archaeological field and lab work.

Attributes: BSS
Prerequisites: ANTH 111A Minimum Grade of C.
Registration Consent: Instructor

ANTH 476 - Cultural Resource Management - 3 (F)

Examination of cultural resource management (CRM) history and laws. Students will gain a practical experience in background research, field survey, evaluation, mitigation, report preparation, and curation.

Attributes: BSS
Prerequisites: ANTH 475 Minimum Grade of C.

ANTH 570 - Special Topics in Cultural Heritage and Resource Management - 1 to 9 (FS)

Significant problems and issues in cultural heritage and resources management not treated in other courses. Focus is restricted; content varies and is announced in advance. May be repeated to a maximum of 9 hours as long as no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

ANTH 575 - Archaeology Field Directorship: Mitigation - 3 or 6

Co-direct original archaeological research with instructor. Methods of directing archaeological excavation and report preparation, learned through active participation in archaeological field and associated lab.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

ANTH 576 - Archaeology Field Directorship: Survey - 3 or 6

Gain practical experience directing a cultural resource survey. Experience will include background research, field survey, evaluation, report preparation, and curation.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

ANTH 586 - Individualized Study in Anthropology - 3 to 6

Guided study on anthropological topics supervised by faculty mentor; specific course content and requirements developed in consultation with faculty mentor. May be repeated up to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

ANTH 589 - Archaeology Internship - 1 to 9

Professional experience in aspects of cultural resource management, such as archaeological survey, mitigation, lab management, artifact analysis, collections management, report preparation, or report review.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

ANTH 590 - Museum Internship - 3 to 6

Professional experience in aspects of museum work, such as exhibition, interpretation, collections

management, or administration.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Art and Design (ART)

ART 401 - Research in Painting - 3 to 6 (FMaS)

Advanced problems in painting. May be repeated for a maximum of 9 hours at the undergraduate level, 12 hours at the graduate level.

Attributes: FPA
Prerequisites: ART 310A Minimum Grade of C and 310B Minimum Grade of C, or Graduate Standing.
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 402 - Research in Sculpture - 3 to 9 (FS)

Exploration of current trends in sculpture-making, with emphasis on interaction of technique and idea. May be repeated to a maximum of 12 hours.

Attributes: FPA
Prerequisites: ART 393A Minimum Grade of C AND ART 393B Minimum Grade of C AND ART 393C Minimum Grade of C, or Graduate Standing.
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 405 - Seminar - 3 (FS)

Preparation for career as studio artist and/or artist-teacher at college level; career analysis, portfolio presentation for graduate school and galleries; visiting professional lecturers in art and law, grant writing, gallery relations, artist's careers, etc. Prerequisite: more than 75+ hours.

Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design

ART 410 - Research in Printmaking - 2 to 6 (FS)

Advanced study in traditional or experimental methods. May be repeated for a maximum of 12 credits. Can be taken concurrently with ART 358, ART 359, or ART 360; or graduate standing.

Attributes: FPA
Prerequisites: ART 358 Minimum Grade of C or ART 359 Minimum Grade of C or ART 360 Minimum Grade of C or Graduate Standing.
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 412 - Research in Graphic Design - 3 (aS)

Directed practicum in advanced client-based desktop design and publishing. May be repeated to a maximum of 9 hours. Prerequisite: 311, 312 with a grade of C or better, or consent of advisor. Art majors only.

Attributes: FPA
Prerequisites: ART 311 Minimum Grade of C and ART 312 Minimum Grade of C, or Graduate Standing (GM), or consent of instructor.
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 413 - Video, Performance, and Digital Media - 3 (S)

Video and performance: conceptual development through time-based media.

Prerequisites: ART 302A Minimum Grade of C OR ART 302B Minimum Grade of C OR ART 312 Minimum Grade of C or consent of instructor.
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 414 - Graphic Design History Through Studio Projects - 3

History of visual communication, including historic movements in Graphic Design and Advertising. Coursework combines lecture materials, quizzes, readings, and research into student projects.

Prerequisites: ART 225A Minimum Grade of C or ART 225B Minimum Grade of C and ART 311 Minimum Grade of C and ART 312 Minimum Grade of C, or Graduate Standing (GM), or consent of instructor.
Restrictions: Must be enrolled in one of the

following Majors: Art Therapy Counseling,Art and Design,Art, Must be enrolled in one of the following Levels: Graduate; Undergraduate

ART 415 - Visual Identity: Logo and Branding Design - 3 (aF)

Application of advanced problem-solving skills with planning, organization, and development of design strategies for logos and branding campaigns addressing institutional, corporate, or service industries. Requires completion of stated prerequisites or consent of instructor. May be repeated up to 6 hours.

Prerequisites: ART 311 Minimum Grade of C and ART 312 Minimum Grade of C, or Graduate Standing (GM).
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design, Must be enrolled in one of the following Levels: Graduate; Undergraduate

ART 416 - Glassworking - 3 to 6 (FS)

Basic methods of forming hot and cold glass; development of creative ideas related to use of glass as art medium. May be repeated to a maximum of 12 hours.

Attributes: FPA
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art
Registration Consent: Advisor

ART 420 - Advanced Ceramics - 3 to 6 (FMS)

Supervised research in specific ceramic areas of technical and aesthetic interest. May be repeated to a maximum of 9 hours.

Attributes: FPA
Prerequisites: ART 305 Minimum Grade of C or Graduate Standing (GM).
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 422 - Research in Photography - 3

Advanced theory and practice in one of several topics: alternative process; composite photography; the contemporary photobook; artificial lighting; the material photograph. May be repeated up to 9 hours.

Attributes: FPA
Prerequisites: ART 302A Minimum Grade of C or ART 302B Minimum Grade of C or Graduate Standing (GM), or instructor consent.
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 423 - Advanced Photography Seminar - 3 (FS)

Advanced seminar exploring personal portfolio development, contemporary theoretical and conceptual issues, as well as developing critical writing skills as they pertain to the photographic medium. May be repeated up to 9 credit hours. Term frequency: Occasionally

Attributes: FPA
Prerequisites: ART 302A Minimum Grade of C and ART 302B Minimum Grade of C or Graduate Standing (GM).
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art, Must be enrolled in one of the following Levels: Graduate; Undergraduate

ART 424 - Baroque Art - 3

Major developments in Baroque painting, sculpture, and architecture in seventeenth-century Italy, Spain, France, Flanders, and the Dutch Republic.

Attributes: ARTH, BHUM, EGC

ART 430 - Studies in Art I - 3 to 6 (FSaM)

Advanced work in any studio area or Art Education. May be repeated for a maximum of 9 hours at the undergraduate level, for a maximum of 12 hours at the graduate level. Varied credit 3-6 with consent of instructor. Complete ART 325 or be at Graduate standing (GM).

Prerequisites: ART 325 or Graduate Standing.
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art
Registration Consent: Instructor

ART 440 - Publication and Information Design - 3 (aF)

Techniques in the application of grid, image, and text, using traditional and contemporary approaches to complex and integrated layout design. Editorial, magazine, and institutional design. May be repeated to a maximum of 6 hours. Prerequisite: 311 and 312, with a minimum grade of C or better, or graduate standing or consent of instructor.

Prerequisites: ART 311 Minimum Grade of C and ART 312 Minimum Grade of C, or be at Graduate Standing (GM), or consent of instructor.
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 441 - Research in Drawing - 3 to 6 (FS)

Advanced research in drawing experiences emphasizing individually realized content through development of compositions. May be repeated to a maximum of 12 hours. Prerequisite: ART 331A and ART 331B with a C or better, or BFA status, or consent of advisor. Art majors only.

Attributes: FPA
Prerequisites: ART 331A Minimum Grade of C and ART 331B Minimum Grade of C or Graduate Standing (GM).
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 449 - Italian Renaissance Art - 3

Architecture, sculpture, and painting of the Late Gothic, Renaissance, and Mannerist periods in Italy.

Attributes: ARTH, BHUM, EGC

ART 450 - Early Childhood Art Education - 3 (F)

Art Education practices in Early Childhood Art Education; methods and materials based on developmental needs. Prerequisite: Consent of instructor.

ART 451 - Northern Renaissance Art - 3

Architecture, sculpture, and painting of the Renaissance and Mannerist periods in Northern Europe.

Attributes: ARTH, BHUM
Prerequisites: ART 225A Minimum Grade of C or ART 225B Minimum Grade of C or Graduate Standing (GM).

ART 467 - Islamic Art and Architecture - 3 (aF)

Art and architecture of the Islamic world from 650 to the present.

Attributes: ARTH, BHUM

ART 470 - Topics in Art History - 3 (FM)

Topics may include: seminars on specific artist or area; investigations of branches of art historical inquiry; major trends and issues in art since 1970. May be repeated to a maximum of 9 hours as long as no topic is repeated. Term Frequency: Occasionally

Attributes: ARTH, BHUM

ART 471 - Topics in Renaissance and Baroque Art - 3

Variable content course in the history of Renaissance and Baroque Art. May be repeated maximum of 9 hours as long as no topic is repeated.

Attributes: ARTH, BHUM

ART 472 - Topics in Modern Art - 3

Variable content course in the history of modern art. May be repeated to 9 hours as long as no topic is repeated.

Attributes: ARTH, BHUM

ART 473 - Women in Art - 3

History of women artists from the Renaissance to the present. Same as WMST 473.

Attributes: ARTH, BHUM, EGC

ART 474 - Topics in Public Art - 3

Variable content course in the history of public art. May be repeated to 9 hours as long as no topic is repeated.

Attributes: ARTH, BHUM

ART 475 - History of Photography - 3

Principal technical and stylistic developments in photography from the early 19th century to the present.

Attributes: ARTH, BHUM

ART 476 - History of Modern Architecture & Design - 3

Principal technical and stylistic developments in architecture and design from the early 19th century to the present.

Attributes: ARTH, BHUM

ART 480 - Topics in American Art - 3

A variable topics class focusing on themes in American art history.

Attributes: ARTH, BHUM

ART 481 - Modern Art - 3

Principal movements and theories of art in the modern period.

Attributes: ARTH, BHUM

ART 482 - Contemporary Art - 3 (S)

Principle movements and theories of contemporary art, ca. 1950 to the present. Term Frequency: Occasionally

Attributes: ARTH, BHUM

ART 483 - Research in Art History - 3 (FM)

Individual research in painting, sculpture, architecture, and related arts of various periods. May be repeated to a maximum of 9 hours provided no topic is repeated. Term Frequency: Occasionally

Attributes: ARTH, FPA
Registration Consent: Instructor

ART 484 - Research in Material Studies - 3 to 6 (FMS)

Individual exploration of advanced fiber concerns in technique and mixed media approaches; concepts emphasizing integration of technical and aesthetic ideas. May be repeated to a maximum of 12 hours; consent of instructor for over 3 hours per semester.

Attributes: FPA
Prerequisites: ART 384 Minimum Grade of C or Graduate Standing (GM).
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 485 - Theories & Methods of Art History - 3

Study of primary methods of research, interpretation, and writing in art history.

Attributes: ARTH, BHUM

ART 486 - Research in Metalsmithing - 2 to 6 (FS)

Concentrated research in advanced metalsmithing techniques and concepts. May be repeated to a maximum of 12 hours.

Attributes: FPA
Prerequisites: ART 386 Minimum Grade of C or Graduate Standing (GM).
Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art

ART 490 - Arts in Community Development - 3 (F)

This course will introduce students to the ecosystem of a growing field of arts-based collaborations aimed at organizational & community development outcomes. Among the sites where these initiatives happen are: schools, museums, prisons, healthcare environments, and neighborhoods. This course consists of service learning & online components.

Registration Consent: Instructor

ART 498 - Internship in the Arts - 3 to 6 (FS)

Involvement in work, study, or research designed and supervised by selected faculty members and cooperating institutions. Varied credit 3-6 credit hours. May be repeated for a maximum of 9 hours.

Restrictions: Must be enrolled in one of the following Majors: Art,Art Therapy Counseling,Art and Design,Art
Registration Consent: Instructor

ART 501 - Graduate Painting - 2 to 6 (S)

Research in specialized areas of personal development of style and technique. May be repeated to a maximum of 12 hours. MFA candidates only

Restrictions: Must be enrolled in one of the following Levels: Graduate

ART 502 - Graduate Sculpture - 2 to 6 (FS)

Research in sculpture with emphasis on development of individual three-dimensional art-making styles and studio techniques. May be repeated for a maximum of 12 hours. MFA candidates only.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 503 - Studio in Painting - 2 to 6

Research in specialized areas of personal development of style and technique. May be repeated to a maximum of 18 hours. MFA candidates only.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 504 - Studio in Sculpture - 2 to 6

Research in sculpture with emphasis on development of individual three-dimensional art-making styles and studio techniques. May be repeated to a maximum of 18 hours. MFA candidates only.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 505 - Graduate Theory - 3

Theoretical and critical issues in art and their relationship to students personal work in the contemporary art world. This course may be repeated to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ART 506 - Professional Practices - 3

Will address key issues for graduate students in teaching and/or professional art practices.

Restrictions: May not be enrolled as one of the following Majors: Art Therapy Counseling,Art, Must be enrolled in one of the following Levels: Graduate

ART 511 - Graduate Printmaking - 2 to 6 (FS)

Development of individual form and technique. May be repeated to a maximum of 12 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 512 - Studio in Printmaking - 2 to 6

Continued development of individual form and technique leading towards thesis and graduate exhibition. May be repeated to a maximum of 12 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ART 513 - Video and Performance - 3 to 6 (S)

Video and performance: conceptual development through time-based media.

Prerequisites: ART 413 OR Graduate level ART 413 Minimum Grade of C).
Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 514 - Studio Topics in Graphic Design - 3 to 6

Research in computer-based techniques in graphic design at the graduate level in both traditional print media and newly emerging techniques in Internet home-page design. May be repeated to a maximum of 15 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 520 - Graduate Ceramics I - 2 to 6 (FS)

Self-directed research in aesthetic and technological aspects of ceramics. Individual development of technique and form in clay. May be repeated to a maximum of 12 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 521 - Graduate Ceramics II - 2 to 6 (FS)

Self-directed research in aesthetic and technological aspects of ceramics. Individual development of technique and form in clay. May be repeated to a maximum of 18 hours.

Prerequisites: Graduate level ART 520 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 522 - Graduate Research in Photography - 3 to 6

Intensive study and exploration of contemporary photographic techniques, approaches, and aesthetics on the graduate level. May be repeated to a maximum of 12 hours.

Prerequisites: ART 422 OR Graduate level ART 422 Minimum Grade of C (concurrency allowed).
Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 523 - Graduate Photography - 3

Self-directed research in photography with an examination of contemporary issues. Continued portfolio and professional development. May be repeated up to 12 hours.

Prerequisites: Graduate level ART 423 Minimum Grade of C (concurrency allowed) OR ART 423 Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Levels: Graduate

ART 530 - Studies in Art II - 2 to 6 (FMS)

Advanced work in area of specialization or under supervision of two or more areas. May be repeated to a maximum of 9 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ART 541 - Graduate Drawing I - 2 to 6

Intensive study with emphasis on concept development and symbolization. May be repeated to a maximum of 12 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ART 549 - Special Topics in Art Therapy - 3 (F)

Special topics of interest to art therapists. Approaches to therapy not covered in depth in other courses. May be repeated to a maximum of 9 hours provided no topic is repeated. Requires consent of instructor.

Prerequisites: Graduate level ART 550 Minimum Grade of C AND Graduate level ART 552 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 550 - Counseling Techniques in Art Therapy - 3 (F)

Theoretical foundations and professional skills for using art therapy and counseling techniques with variety of client populations. Practice of active listening, reflection, and empathic skills.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 552 - Appraisal of Individuals and Families - 3 (S)

Appraisal and evaluation of individuals and families through a variety of measures. Includes selecting, conducting and interpreting of art therapy and counseling assessments.

Restrictions: Must be enrolled in one of the following Majors: Art Therapy Counseling,Art Therapy Counseling, Must be enrolled in one of the following Levels: Graduate

ART 555 - Art Therapy Counseling with Groups - 3 (S)

Theory and application of art therapy counseling techniques to facilitate ethically and culturally responsive groups.

Prerequisites: Graduate level ART 550 Minimum Grade of C.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ART 556 - Family Art Therapy - 3 (S)

Principles of family therapy theory; family art assessment and treatment using art therapy interventions. May be repeated to a maximum of 6 hours.

Prerequisites: Graduate level ART 550 Minimum Grade of C AND Graduate level ART 552 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ART 557 - Developmental Theory and Art Therapy - 3 (F)

Human growth and developmental theory that covers contextual/ecological factors, which exist along a continuum. Review of health across the lifespan.

Restrictions: Must be enrolled in one of the following Majors: Art Therapy Counseling,Art Therapy Counseling, Must be enrolled in one of the following Levels: Graduate

ART 558 - Independent Study in Art Therapy - 3 to 9

Topical areas in greater depth than regularly titled courses permit. For advanced art therapy students. May be repeated to a maximum of 9 hours.

Prerequisites: Graduate level ART 550 Minimum Grade of C AND Graduate level ART 552 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

ART 559 - Internship - 1 to 6 (FS)

Supervised clinical experience with people across the lifespan in psychiatric, rehabilitation, community, and education settings; Covers preparation, assessment, skills, conferences, record keeping, staffing, and supervision in regard to professional practice of art therapy counseling.

Prerequisites: Graduate level ART 564 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 561 - Social and Cultural Dimensions - 3 (S)

Focus on socio-cultural dimensions in art therapy counseling and explore ways to work with a wide variety of communities and contexts.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 563 - Topics in Art Education - 3

Selected topics: gerontology; related and interdisciplinary arts; special education; art therapy; elementary and secondary school programs. May be repeated to a maximum of 12 hours provided that no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 564 - Practicum - 3 (FS)

Introduction to foundational practices of art therapy counseling in a community setting.

Restrictions: Must be enrolled in one of the following Majors: Art Therapy Counseling, Must be enrolled in one of the following Levels: Graduate

ART 566 - Research Methods and Evaluation - 3 (F)

Survey of research methods and program evaluation in art therapy counseling.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 567 - Independent Study in Art Education - 3

Topical areas in greater depth than regularly included in lecture courses. For advanced art education students.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ART 573 - Theories of Art Therapy and Counseling - 3 (F)

Intensive study of the basic theories and principles of counseling as applied in art therapy. Includes creativity, psychoanalytic, gestalt, existential, Adlerian, cognitive-behavioral, and brief, solution-focused approaches to therapy.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 574 - Career Counseling - 3 (FS)

Lifelong processes and influences that lead to work values, occupational choice, decision-making styles, patterns of work adjustment, and creation of career plan.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 575 - Professional Orientation, Ethics, and Legal Issues - 3

Legal issues and responsibilities, orientation to art therapy and counseling professions, professional identity development, and ethics in art therapy and counseling.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ART 576 - Art Therapy Counseling for Trauma - 3 (F)

An introduction to a critical understanding of psychological trauma throughout the lifespan, including history, current theories, treatment and types of trauma among individuals and systems.

Prerequisites: Graduate level ART 550 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ART 584 - Research in Material Studies - 2 to 6 (FMS)

Studio course allowing individual development in fibers/fabrics leading toward development of thesis problem. May be repeated to a maximum of 12 hours.

Restrictions: May not be enrolled as the following Levels: Graduate

ART 585 - Seminar in Material Studies - 2 to 6 (S)

Group and individual efforts contributing points of view relating to on- and off-loom weaving and textile concepts. Criticism directed toward thesis development. May be repeated to a maximum of 18 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ART 586 - Graduate Metalsmithing I - 2 to 6 (FS)

Self-directed research in metalsmithing in aesthetic and technical development. Individual development of personal techniques and artistic concepts through metal.

Prerequisites: Graduate level ART 486 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ART 587 - Graduate Metalsmithing II - 2 to 6 (F)

Self-directed research in metalsmithing in aesthetic and technical development. Individual development of personal techniques and artistic concepts through metal.

Prerequisites: Graduate level ART 586 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ART 595 - Research Projects - 3 (S)

Independent research study and seminar participation under graduate art therapy faculty supervision. Repeatable up to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

ART 599A - Thesis - 3 (F)

Preparation of full, first draft of thesis (excluding exhibition chapter). Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

ART 599B - Thesis - 3 (S)

Final revision and submission of thesis (including exhibition chapter) coordinated by candidate's thesis committee. Exhibition installation. Requires consent of advisor.

Prerequisites: Graduate level ART 599A Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

Biological Sciences (BIOL)

BIOL 416 - Techniques in Plant Cell and Tissue Culture - 4 (aS)

Theory and techniques of culture growth, differentiation, metabolism and transformation. Two lectures and two labs per week. [GCB, MPD electives]

Attributes: EL, LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 417 - Quantitative Methods in Experimental Biology - 4 (S)

Selection and application of statistical techniques appropriate for biological data. Practical experience using spreadsheets and statistical software.

Attributes: BICS, LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 418A - Recombinant DNA - 3 (F)

Basic principles of gene cloning including the methods of creating recombinant DNA molecules, transfer of genes into recipient cells, and regulation following gene transfer. [GCB elective]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C and BIOL 319 Minimum Grade of C, or Graduate Standing (GM).

BIOL 418B - Recombinant DNA Lab - 3 (S)

Experiments in gene manipulation using bacterial genes exempt from federal guidelines concerning recombinant DNA. Six lab hours per week. [GCB Elective]

Attributes: EL, LS
Prerequisites: BIOL 418A Minimum Grade of C OR Graduate level BIOL 418A Minimum Grade of C.

BIOL 420 - Bioinformatics for Biologists - 4

Introduction to computational tools/software for understanding biological data. Build a foundation of bioinformatic practices – explore databases, perform statistical analyses, and visualize large datasets while highlighting real-world applications.

Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 421 - Human Genetics - 3

Human genetics, human chromosomes; Mendelian characters in man, genetic inference, pedigrees, twins, population-mutation-genetics of races; genetics and medicine. [GCB elective]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 422A - Population Genetics - 3

Unites the fields of molecular genetics and evolutionary biology to explore processes and mechanisms of evolutionary change, provide a theoretical basis for interpreting molecular variation. [EEE, GCB electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C AND BIOL 327 Minimum Grade of C.

BIOL 422B - Population Genetics Lab - 1

Molecular and analytical techniques commonly employed in basic and applied fields of population genetics. Requires concurrent enrollment in BIOL 422A.

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C AND BIOL 327 Minimum Grade of C. Corequisite(s): BIOL 422A

Corequisites: BIOL422A

BIOL 423 - Forensic Biology - 3 (S)

Principles of human anatomy and physiology, population and molecular genetics, botany, entomology are reviewed in the context of their applications to legal contexts. [EEE, MPD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 424 - Forensic Toxicology - 3 (S)

Forensic Toxicology provides an introduction to the principles of toxicology and how those principles are applied in legal applications. (MPD elective)

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 425 - Developmental Biology - 3 (S)

Embryonic and postembryonic developmental processes in animals. Topics include: fertilization, morphogenesis, pattern formation and the cellular control of these events. [GCB, MPD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C AND BIOL 319 Minimum Grade of C.

BIOL 426 - Stem Cells and Regeneration - 3

Topics related to stem cells and regenerative biology, including cellular and molecular regulation, medical applications, and mechanisms of regeneration in diverse species. [GCB, MPD electives]

Attributes: BLS
Prerequisites: BIOL 319 Minimum Grade of C; or Graduate Standing (GM); or instructor permission.

BIOL 427 - Evolutionary Medicine - 3 (M)

Application of evolutionary theory to medical science providing insight into our understanding of challenges as diverse as infectious agents, allergies, cancer, obesity and mental disorder. [EEE]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 428 - Biology of Fungi - 3

An in-depth treatment of fungi including phylogeny, cell biology, reproduction, development, and ecology, emphasizing features not typical of other Eukaryotes, and symbioses. [EEE, DIV electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C, or equivalent or admission to graduate Biology program or instructor persmission.

BIOL 431 - Cellular and Molecular Bases of Disease - 3

Causes and pathophysiology of diseases presented from the cellular and molecular levels. [GCB elective]

Attributes: LS
Prerequisites: BIOL 319 Minimum Grade of C.

BIOL 432 - Advanced Cell Biology - 4

Analysis of advanced topics in cell and molecular biology. Emphasis on laboratory projects and current literature with supporting lectures. [GCB elective]

Attributes: LS
Prerequisites: BIOL 319 Minimum Grade of C.

BIOL 434 - Fundamentals of Aquatic Ecotoxicology - 3 (F)

Biological effects of aquatic pollution from the molecular to the ecosystem level; uptake, metabolism, excretion, food chain transfer, environmental fate, aquatic pollutants transport. [EEE. MPD electives] Same as ENSC 434.

Attributes: LS
Prerequisites: (ENSC 220 AND ENSC 330) OR BIOL 319 OR BIOL 365 OR CHEM 471.

BIOL 435 - Ecological Risk Assessment - 3 (F)

Introduction to science behind environmental policy/regulations. Application of ecology, chemistry, and toxicology application to assess present and future pollution risks to populations, communities, ecosystems.

Attributes: LS
Prerequisites: BIOL 365 Minimum Grade of C OR

ENSC 431 Minimum Grade of C.

BIOL 436 - Fundamentals of Molecular Toxicology and Pharmacology - 3 (S)

Molecular, biochemical, and cellular mechanisms of toxicity, mode of action, metabolism, and interactions of environmental pollutants, toxic chemicals, and drugs. [EEE, GCB electives]

Attributes: LS
Prerequisites: BIOL 319 Minimum Grade of C OR CHEM 471 Minimum Grade of C OR ENSC 431 Minimum Grade of C OR CHEM 451A Minimum Grade of C.

BIOL 440 - Functional Human Anatomy - 4 (S)

Systematic and regional study of the human body, including thorax, abdomen, pelvis, back, limbs, head, neck, emphasizing structural, functional, and clinical relationships. [MPD elective]

Attributes: BLS, EH, EL
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 441 - Advanced Physiology - 3

Energy procurement and balance, intermediate metabolism, temperature control; advanced topics of cardiovascular and respiratory mechanisms; body fluid regulation, and some environmental adaptations. [MPD elective]

Attributes: LS
Prerequisites: BIOL 340 Minimum Grade of C.

BIOL 444A - Fundamentals of Neuroscience - 3

Integration of cellular and molecular biology, neuroanatomy, neurophysiology in nervous system function and control of behavior. Current mechanisms of learning, memory, drug actions, and motor control. [MPD elective]

Attributes: LS
Prerequisites: BIOL 319 Minimum Grade of C.

BIOL 451 - Microbial Pathogenesis - 3

Analysis of mechanisms of pathogenesis employed by bacteria, fungi, protozoa and viruses, including transmission, invasion, colonization, virulence factors, pathology, epidemiology, and treatment. [GCB elective]

Attributes: EH, LS
Prerequisites: BIOL 350 Minimum Grade of C.

BIOL 452 - Molecular Genetics - 3 (F)

Molecular basis of genetics in both prokaryotes and eukaryotes, including structure and replication of DNA, gene expression, transfer of genetic material between organisms. [GCB elective]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C AND BIOL 319 Minimum Grade of C.

BIOL 455A - Virology - 3 (F)

Biochemical and physical structure of viruses and their mode of replication in infected cells, including latency and viral oncogenesis. [GCB elective]

Attributes: LS
Prerequisites: BIOL 319 Minimum Grade of C OR BIOL 350 Minimum Grade of C.

BIOL 455B - Virology Lab - 1 (F)

Basic virology and microbiological techniques used in bacteriophage research.

Prerequisites: BIOL 319 Minimum Grade of C OR BIOL 350 Minimum Grade of C. Corequisite(s): BIOL 455A.
Corequisites: BIOL455A

BIOL 457 - Parasitology - 4

An exploration of parasitism as a concept, the etiology and ecology of parasites, and the evolutionary adaptions that lead to parasitic lifestyles. [MPD, DIV]

Attributes: BLS, EL
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 460 - Wildlife Management - 3 (aS)

Wildlife ecology, conservation, and management including effects of habitat, behavior, disease, and predation on populations. Optional field trips. [EEE elective]

Attributes: LS

Prerequisites: BIOL 365 Minimum Grade of C.

BIOL 463 - Conservation Biology - 4 (F)

Examination of concepts and principles of conservation biology, leading to an understanding of threats to biodiversity and techniques to minimize ecosystem degradation and biodiversity loss. [EEE elective]

Attributes: LS
Prerequisites: BIOL 365 Minimum Grade of C.

BIOL 464 - Applied Ecology - 3 (S)

Applying ecological concepts and principles for solving, predicting and managing current important ecological problems, such as global climate change, conservation, wetland restoration, and environmental remediation. (Same as ENSC 450)

Attributes: LS
Prerequisites: BIOL 365 Minimum Grade of C.

BIOL 465 - Aquatic Ecosystems - 4

Biogeochemistry and community structure of aquatic systems. Three lectures one three-hour laboratory per week. [EEE elective]

Attributes: EL, LS
Prerequisites: BIOL 151 Minimum Grade of C AND CHEM 121B Minimum Grade of C.

BIOL 466 - Terrestrial Ecosystems - 3

Energy flow and mineral cycling as they interact with community organization and other processes in terrestrial ecosystems. Three lecture hours per week. Weekend field trips may be required. Requires completion of stated prerequisites or instructor consent.

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 467 - Animal Physiological Ecology - 3 (aS)

Examine how an organism's environment affects its physiology. Comparative approach will explore physiological adaptations to a variety of environmental factors. [EEE, MPD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C AND (BIOL 340 Minimum Grade of C OR BIOL 365 Minimum Grade of C).

BIOL 467L - Physiological Ecology Laboratory - 1

An introduction to the techniques used in the field of physiological ecology with an in-depth analysis of the prominent literature in the field.

Prerequisites: Corequisites: BIOL 467.
Corequisites: BIOL467

BIOL 468 - Pollution Ecology - 3 (F)

The application of biological, ecological, chemical and physical sciences to understanding the fate and transport of pollutants through ecosystems. [EEE elective]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C AND BIOL 365 Minimum Grade of C.

BIOL 469 - Ecology of Plants - 4

Plant adaptations; plant population and community ecology; introduction to landscape ecology. Focuses on primary literature, scientific communication, data analysis, and plant natural history. [EEE, FIELD elective]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C AND BIOL 365 Minimum Grade of C.

BIOL 470 - Field Biology - 4 (M)

Distribution and ecology of regional biological communities. Natural history and identification of local plants and animals. In class field trips. [EEE, FIELD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 471 - Plant Systematics - 4 (S)

Examination of basic processes in vascular plant evolution. Local flora characteristics and identification. [EEE, DIV, FIELD electives]

Attributes: LS

Prerequisites: BIOL 220 Minimum Grade of C

BIOL 472 - Topics in Plant Physiology - 4

Examination of plant cells, tissues, and morphology. Two lectures and two labs per week. [EEE, MPD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 473 - Plant Anatomy - 4

Examination of plant cells, tissues, and morphology. Two lectures and two labs per week. [EEE, MPD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 474 - Plant Taxonomy - 4

A field-oriented course in which students collect and identify plant specimens using professional taxonomic keys. [EEE, DIV, FIELD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 475 - Plant Molecular Biology - 4

Molecular processes underlying a plant's ability to sense its environment, utilize available resources, regulate gene expression and alter development based on environment and resources. [GCB elective]

Attributes: LS
Prerequisites: BIOL 319 Minimum Grade of C.

BIOL 480 - Animal Behavior - 4

Examination of mechanisms, evolution, and ecological consequences of animal behavior. Concepts introduced through lectures, laboratory and field experiments, and independent projects. [EEE, DIV, FIELD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 483 - Entomology and Insect Collection - 4 (aF)

An introduction to the life history, ecology, physiology, behavior, forensics, diversity, and taxonomy of insects. [EEE, DIV, FIELD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 485 - Ichthyology - 4 (aF)

Taxonomy, ecology, distribution, behavior, and anatomy of fishes. Emphasis on local fauna. Saturday field trips required. [EEE, DIV, FIELD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 486 - Herpetology - 4

Living and fossil amphibians and reptiles, evolution, relationships, morphology, behavior. Two lectures and two laboratories per week. Saturday field trips required. [EEE, DIV, FIELD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 487 - Ornithology - 4

Examination of form, function, behavior, ecology and evolution of birds. Emphasis on local fauna. Three lectures and one laboratory per week. Saturday field trips required. [EEE, DIV, FIELD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 488 - Mammalogy - 4

Morphology, systematics, natural history, taxonomy, and evolution of living and fossil mammals. Two lectures and two labs per week. [EEE, DIV, FIELD electives]

Attributes: LS
Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 489 - Comparative Vertebrate Anatomy - 4 (F)

A systematic study of the vertebrate body. Comparative approach will explore the anatomical similarities and differences among major vertebrate taxonomic groups. [EEE, MPD elective]

Attributes: LS

Prerequisites: BIOL 220 Minimum Grade of C.

BIOL 490 - Topics in Biology - 1 to 4 (FS)

In-depth examination of an area of Biological Sciences. May be repeated up to 8 credit hours as long as neither topic nor professor is repeated.

Attributes: LS
Registration Consent: Instructor

BIOL 494 - Methods of Teaching Science in Secondary Schools - 3 (F)

Teaching and resource materials for secondary science instruction. Planning and presenting lessons, problem solving techniques, controversial topics in the classroom, safety concerns, educational technology, pedagogical content knowledge.

Attributes: LS
Registration Consent: Instructor

BIOL 496 - Rainforest Service Learning for Educators - 4

Service learning course for educators investigates sustainable development issues in rainforest preservation through study of culture, language, ecology, and geography. Consent of instructor required.

Attributes: EGC, LS
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

BIOL 501 - Introduction to Graduate Study - 2 (F)

An introduction to the requirements and expectations of graduate study, strategies for success, and options for students after earning degree.

Restrictions: Must be enrolled in one of the following Levels: Graduate

BIOL 502 - Experimental Methods in Biological Sciences - 2 (S)

The logic behind and the application of common techniques in Biological Sciences. Covers material from across the spectrum of the discipline.

Restrictions: Must be enrolled in one of the following Levels: Graduate

BIOL 503 - Scientific Writing in Biological Science - 2 (F)

Formation and practice of scientific writing in biology, with an emphasis on compilation and critical review of the scientific literature.

Prerequisites: Graduate level BIOL 502 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Biological Sciences, Must be enrolled in one of the following Levels: Graduate

BIOL 516 - Environmental Impact Analysis - 3

Implications and applications of National Environmental Policy Act (NEPA) and related environmental legislation. Methodology for environmental inventory and environmental impact statement preparation. Same as ENSC 516.

Restrictions: May not be enrolled as the following Levels: Undergraduate

BIOL 540 - Natural History of Illinois - 3

Study of the geological, climatic, ecological, evolutionary, and anthropogenic processes that produced the Illinois landscape and its biodiversity.

Prerequisites: BIOL 220 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

BIOL 567 - Environmental Education - 3

Environmental education history, practices, curriculum, organization, evaluation, project development and research required of successful practitioners in the field.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

BIOL 575 - Statistics for Environment Science - 3

Characterization of the steps, processes and

statistical analysis necessary for a well-planned experiment. Theory and application of experimental design.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

BIOL 590 - Topics in Biology - 3 to 5

In-depth examination of an area of Biological Sciences. May be repeated to a maximum of 12 hours as long as no topic is repeated. Requires Graduate standing.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

BIOL 591 - Readings in Biology - 1 to 8 (FMS)

Supervised readings in specialized areas. May be repeated to a maximum of 8 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

BIOL 592 - Graduate Colloquium in Biology - 1 (FS)

Attendance in the weekly colloquium seminar series. Students will critique colloquium presentations and will engage in group discussions of presentations. May be repeated to a maximum of 4 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

BIOL 593 - Special Problems in Biology - 1 to 8 (FMS)

Research on biological problems. May be repeated to a maximum of 8 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

BIOL 595 - Topics in Cellular and Molecular Biology - 2 (FMS)

Examination in depth of topics in cellular and molecular biology by means of seminars, discussions, readings and papers. May be repeated to a maximum of 6 hours, provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

BIOL 596 - Topics in Organismal Biology - 2 (FS)

Examination in depth of topics in organism biology by means of seminar, discussions, readings, and papers. May be repeated to a maximum of 6 hours, provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

BIOL 598A - Internship - 3

Supervised work experience in research or business organization. Requires 150 hours of work time per 3 hours of credit. Written report required.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

BIOL 598B - Internship - 3

Supervised work experience in research or business organization. Requires 150 hours of work time per 3 hours of credit. Written report required. Requires consent of department chair or program director.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

BIOL 599 - Research and Thesis - 1 to 6 (FMS)

May be repeated to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

Civil Engineering (CE)

CE 416 - Engineering Hydrology - 3 (F)

Hydrological processes and their relationship to design of structures for control and management of water resources, rainfall-runoff relationship, probability and frequency analysis, surface water hydrology. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 315 (concurrency allowed) AND CE 354 (concurrency allowed) AND STAT 380
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 435 - Pavement Design - 3 (M)

Analysis and design for highways and airports. Factors affecting pavement performance and code requirements. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 330 AND CE 343 AND CE 354
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 441 - Design of Timber Structures - 3 (F)

Design and analysis of timber structures and timber design code. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 343 (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 443 - Design of Masonry Structures - 3 (SaF)

Design and analysis of masonry structures and masonry design code. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 343 (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 445 - Advanced Structural Analysis - 3 (F)

Analysis of indeterminate two- and three-dimensional trusses and frames, with emphasis on matrix methods. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 343 (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 446 - Advanced Concrete Design - 3 (S)

Advanced topics in reinforced concrete design, design of pre-stressed concrete beams, and code design requirements. Requires completion of stated prerequisites or consent of instructor.

Prerequisites: CE 343 AND CE 445 (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 449 - Advanced Steel Design - 3 (FM)

Plastic analysis of steel structures. LRFD design. Stability theory applied to structural design. Composite beams and columns. Introduction to seismic design. Code requirements. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 342 AND CE 343 (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 455 - Foundation Design - 3 (S)

Design of foundations, retaining walls, cofferdams, and earth embankments; formulation of design problem statements and specifications; and estimates of bearing capacity, settlements, and slope stability values. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 354.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 457 - Soil Mechanics in Engineering - 3

Mineralogy and Soil Behavior, Advanced Seepage and Consolidation Analyses, Engineering Applications of Soil Mechanics, Implementation of Numerical Modeling in Soil Mechanics.

Prerequisites: CE 354.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering
Registration Consent: Instructor

CE 458 - Geological and Geotechnical

Exploration - 3

Introduces students to the concepts behind testing rocks, soils, and profiles; geophysical testing; and planning a geotechnical investigation and testing program.

Prerequisites: CE 354 with a minimum grade of D or consent of instructor or graduate standing.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 459 - Soil Improvement - 3 (aF)

Instruction will include introduction to problematic geomaterials, geotechnical failures, soil improvement methods, design considerations, construction and quality control/assurance, densification and replacement techniques.

Prerequisites: CE 354 with a minimum grade of D or consent of instructor or graduate standing.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 460 - Municipal Infrastructure Design - 3 (FS)

Municipal infrastructure analysis and design; water distribution networks; wastewater collection; street systems; and engineering processes of municipal designs. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 315 AND CE 376.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 474 - Computer Simulation in Traffic Engineering - 3 (aS)

Highway capacity software (HCS), signal timing software (SYNCHRO), and micro-simulation software (TSIS).

Prerequisites: CE 376.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 475 - Transportation Planning - 3

Covers the basis for transportation planning process; modeling transportation demand and supply; project evaluation for decision making, and transportation sustainability.

Prerequisites: CE 376.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 476 - Traffic Studies - 3 (aF)

Acquisition, evaluation, statistical analysis and reporting of traffic engineering data used to design, evaluate and operate transportation systems. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 376.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 482 - Water Resources Engineering and Management - 3

Excessive water use have adverse impacts on environment and natural water resources. Sustainable management is a necessity. Course focuses on demand analysis and management of water resources for different use.

Prerequisites: CE 416 Minimum Grade of C (concurrency allowed).

CE 483 - Applications of GIS in Hydrologic Analyses - 3

The course focuses on preparing geospatial (raster and vector) data required for modeling/simulating surface water hydraulics and application of simulated hydraulics to analyze flood inundation.

Prerequisites: CE 315 (concurrency allowed) OR CE 416 (concurrency allowed) OR Graduate level CE 416 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 486 - Wastewater Treatment Design - 3 (aF)

Design of wastewater treatment systems including: preliminary, primary, and secondary treatment processes and biosolids treatment and disposal. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 380.
Restrictions: Must be enrolled in one of the

following Majors: Civil Engineering

CE 487 - Water Treatment Design - 3 (aF)

Design of potable water treatment processes with emphasis on chemical and physical unit operation. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: CE 380.
Restrictions: Must be enrolled in one of the following Majors: Civil Engineering

CE 492 - Topics in Civil Engineering - 1 to 5 (FS)

Selected topics of special interest. May be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Majors: Civil Engineering
Registration Consent: Instructor

CE 541 - Bridge Engineering - 3 (aF)

Major aspects of bridge engineering. Analysis, design, detailing and construction using AASHTO LRFD bridge design specifications.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CE 545 - Structural Dynamics - 3 (S)

Dynamic response of single and multi-degree of freedom structural systems. Mode superposition and structural damping.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 548 - Finite Elements - 3 (S)

Rayleigh-Ritz method, piecewise approximation, nodal load calculations, derivation of two-and three dimensional elements, and bending elements. Finite element computer programs.

Prerequisites: CE 445 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 549 - Earthquake Engineering - 3

Structural design and detailing for earthquake loads; lateral load resistant systems; and building and bridge code requirements.

Prerequisites: CE 545.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 550 - Advanced Soil Mechanics - 3 (aF)

Learn about slope stability, slide stability, drained and undrained shear strength of sands and clays, and shear strength tests.

Restrictions: Must be enrolled in one of the following Majors: Civil Engineering, Must be enrolled in one of the following Levels: Graduate

CE 551 - Design of Levees and Floodwalls - 3

Instruction will include the design of levees, small embankments, floodwalls; as well as the stabilities and maintenance of these facilities.

Restrictions: Must be enrolled in one of the following Majors: Civil Engineering, Must be enrolled in one of the following Levels: Graduate

CE 557 - Geotechnical Earthquake Engineering - 3

This course is intended to give students a basic understanding of theoretical, empirical and design principles of geotechnical earthquake engineering. At the end of this course the students should have basic understanding of principles of earthquake, wave propagation, dynamic soil properties, liquefaction and seismic design of various geotechnical systems.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CE 574 - Transportation Infrastructure Security using Intelligent Transportation Systems - 3

Protection and recovery from security incidents using the integration outlined in the security areas of the Architecture Reference for Cooperative and Intelligent Transportation and the capabilities of new technologies.

Prerequisites: CE 376.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 575 - Advanced Geometric Design of Highways - 3

Proportioning of the physical element of the highways such as horizontal curves, vertical curves, lane width, and cross section.

Prerequisites: CE 376.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 576 - Traffic Signals - 3

This course will cover best practices for the design and operation of traffic signal systems for isolated locations, coordinated corridors, and grid networks.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 578 - Intelligent Transportation Systems - 3

Intelligent transportation systems combine traffic flow principles, computer and communication technologies, and management strategies to improve travel efficiency, safety, and security, thus sustainability.

Prerequisites: CE 376.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 579 - Transportation Safety Systems - 3 (aF)

Implementation, operation and evaluation of transportation safety systems for highway and non-highway modes analysis, remediation strategies, and case studies.

Prerequisites: CE 376.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 581 - Advanced Wastewater Treatment - 3

Theory and design of advanced wastewater treatment systems, including natural treatment systems, nutrient removal and other tertiary treatment processes.

Prerequisites: CE 486.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 582 - Water Quality and Treatment - 3

Study of water quality and advanced drinking water treatment processes, with an emphasis on rationale, fundamentals, and advanced technologies to removed special contaminants.

Prerequisites: CE 487.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 583 - Hydraulic Structures - 3

This course focuses on the design techniques for general hydraulic structures such as dam, weirs, spillways, stilling basins, drop structures, and culverts.

Prerequisites: CE 315 Minimum Grade of C (concurrency allowed) OR Graduate level CE 416 Minimum Grade of C (concurrency allowed).
Restrictions: May not be enrolled as the following Levels: Undergraduate

CE 584 - River Restoration - 3

The class focuses on analyzing and applications of current techniques in river restoration design.

Prerequisites: Graduate level CE 416 Minimum Grade of C (concurrency allowed).
Restrictions: May not be enrolled as the following Levels: Undergraduate

CE 588 - Solid Waste Management - 3

Perspectives, engineering principles, and management issues governing solid waste management, including sustainability.

Prerequisites: CE 380.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 589 - Industrial Materials & Waste - 3

Management of hazardous industrial materials and wastes including: regulations, handling, minimization and prevention of waste generation; recycling/reuse; and treatment and disposal.

Prerequisites: CE 380.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 591 - Independent Study - 1 to 4 (FS)

Individual investigation of a topic in civil engineering to be agreed upon with the instructor. May be repeated for a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CE 592 - Topics in Civil Engineering - 1 to 5 (F)

Topic of special interest. Course schedule will include name of topic. May be repeated to a maximum of 9 hours so long as no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CE 593 - Research Paper - 1 (FMS)

Independent research for the non-thesis option final research paper.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CE 596 - Sustainable Engineering - 3

Concepts and principles of sustainable engineering for infrastructure design and their application to analyze the impact of engineering design on resources consumption and the environment.

Prerequisites: CE 380.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CE 599 - Research - 1 to 6 (FMS)

Independent research at master's level. May be repeated to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

Chemistry (CHEM)

CHEM 410 - Bioinorganic Chemistry - 3 (S)

Exploration of the principles of inorganic reactivity through the structure, stability and reactivity of metal ion-biomolecule complexes, as revealed through appropriate physical methods.

Attributes: PS
Prerequisites: CHEM 451A Minimum Grade of C OR Graduate level CHEM 451A Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Chemistry

CHEM 411 - Inorganic Chemistry - 3 (F)

Modern inorganic chemistry including: bonding theory; symmetry and group theory; stereochemistry of complexions; reaction mechanisms; main group chemistry; transition metal chemistry; and organometallic chemistry. Three lecture hours per week.

Attributes: PS
Prerequisites: CHEM 361A.

CHEM 419 - Special Topics in Inorganic Chemistry - 1 to 3

Selected advanced topics. May be repeated up to 6 hours so long as no topic is repeated.

Attributes: PS
Prerequisites: CHEM 361A.
Registration Consent: Instructor

CHEM 431 - Instrumental Analysis - 3 (S)

Theory and methods of modern instrumental analytical techniques and instrumentation. Three lecture hours per week.

Attributes: PS
Prerequisites: CHEM 331 AND (CHEM 361A OR CHEM 461A).

CHEM 432 - Forensic Chemistry - 3

Forensic chemical and instrumental analysis methods for trace ecidence including drugs of abuse, fibers, explosives, coatings, and polymers.

Attributes: PS
Prerequisites: CHEM 331 AND CHEM 335 AND CHEM 361A (concurrency allowed).

CHEM 435 - Instrumental Analysis Lab - 1 (S)

Laboratory practice in spectroscopic and other instrumental techniques. One - four hour laboratory per week.

Attributes: EL, PS
Prerequisites: CHEM 431 (concurrency allowed).

CHEM 439 - Advanced Topics in Analytical Chemistry - 1 to 3 (MS)

Selected advanced topics. May be repeated for up to 6 hours as long as no topic is repeated.

Attributes: PS
Prerequisites: CHEM 331 AND CHEM 335 AND CHEM 361A.
Registration Consent: Instructor

CHEM 444 - Organic Reaction - 3 (S)

Emphasis on mono-functional compounds. Topics not covered in elementary courses. Three lecture hours per week.

Attributes: PS
Prerequisites: CHEM 241B.

CHEM 445 - Spectrometer Operation, Experimental Design, and Analysis - 1 (FS)

Current practices in the operation, experimental design, and analysis of modern NMR, and other types of spectroscopy.

Attributes: PS
Prerequisites: CHEM 241B Minimum Grade of C.

CHEM 446 - Organic Spectral Analysis - 1 (F)

Use of modern spectral techniques to analyze the structure of organic compounds. Various types of spectroscopy along with computer techniques will be employed. Requires consent of instructor.

Attributes: PS
Prerequisites: CHEM 241B AND CHEM 361B.

CHEM 449 - Special Topics in Organic Chemistry - 1 to 3

Selected advanced topics. May be repeated for up to 6 hours so long as no topic is repeated.

Attributes: PS
Prerequisites: CHEM 241B AND CHEM 361A.
Registration Consent: Instructor

CHEM 451A - Biochemistry - 3 (FMS)

Life processes at the molecular level. Structure and function of biomolecules.

Attributes: BLS
Prerequisites: CHEM 300 Minimum Grade of C (concurrency allowed) AND CHEM 241B Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Chemistry,Chemistry

CHEM 451B - Biochemistry - 3 (FMS)

Life processes at molecular level. Intermediary metabolism, transmission of hereditary information. Must be taken in sequence.

Attributes: LS
Prerequisites: CHEM 451A Minimum Grade of C.

CHEM 451C - Biochemistry - 3 (F)

Life processes at molecular level. Advanced topics including proteomics, genomics, cellular and molecular techniques, bioanalytical, biophysical and bioorganic chemistry. Must be taken in sequence.

Attributes: LS
Prerequisites: CHEM 451B Minimum Grade of C OR Graduate level CHEM 451B Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Chemistry

CHEM 455 - Experimental Methods in Biochemistry - 2 (MS)

Current practice in enzyme isolation and assessment. Microcomputer-assisted data treatment, graphics, statistical methods, and data acquisition. Four laboratory hours per week.

Attributes: EL, LS
Prerequisites: CHEM 241B Corequisites: CHEM451B.
Corequisites: CHEM451B

CHEM 459 - Special Topics in Biochemistry - 1 to 3 (S)

Selected topics such as enzymology, metabolism, and nucleic acids. May be repeated for a total of 6 hours provided no topic is repeated.

Attributes: LS
Prerequisites: CHEM 361A.
Registration Consent: Instructor

CHEM 461A - Biophysical Chemistry I - 3 (F)

Examination of biophysical chemistry principles of thermodynamics and kinetics and the understanding of biological systems using physical chemistry.

Attributes: PS
Prerequisites: (PHYS 132 Minimum Grade of C OR PHYS 152 Minimum Grade of C) AND (CHEM 451B Minimum Grade of C OR Graduate level CHEM 451B Minimum Grade of C) AND (MATH 145 Minimum Grade of C OR MATH 150 Minimum Grade of C).
Restrictions: Must be enrolled in one of the following Majors: Chemistry

CHEM 461B - Biophysical Chemistry II - 3 (S)

Course will examine the biophysical chemistry principles of quantum mechanics and spectroscopy and the understanding of biological systems using physical chemistry.

Attributes: PS
Prerequisites: CHEM 461A Minimum Grade of C OR Graduate level CHEM 461A Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Chemistry

CHEM 465 - Biophysical Chemistry Lab - 2 (F)

Investigations of biophysical chemical phenomena. Emphasis on computer aided data analysis, rigorous preparation of written reports, introduction to chemical literature. Six hours of laboratory per week.

Prerequisites: CHEM 461A Minimum Grade of C OR Graduate level CHEM 461A Minimum Grade of C.

CHEM 469 - Special Topics in Physical Chemistry - 1 to 3

Selected advanced topics. May be repeated for up to 6 hours provided no topic is repeated.

Attributes: PS
Prerequisites: CHEM 361B.
Registration Consent: Instructor

CHEM 471 - Principles of Toxicology - 3 (F)

Chemical and biological effects of toxic substances in living organisms at the molecular and cellular level. Topics include: routes of entry, mechanism of action, effects, and antidotes. Same as ENSC 431.

Attributes: BLS
Prerequisites: (CHEM 120A AND CHEM 120B) OR (CHEM 121A AND CHEM 121B) AND BIOL 150 AND BIOL 151.

CHEM 479 - Special Topics in Environmental Chemistry - 1 to 3

Selected advanced topics. May be repeated to a maximum of 6 hours provided no topic is repeated.

Attributes: PS
Prerequisites: CHEM 241B.
Registration Consent: Instructor

CHEM 480 - Principles of Fermentation Chemistry and Biochemistry - 2 (F)

Covers the basic principles of the historical, scientific, technological, and cultural aspects of fermentation chemistry and biochemistry in biofuels, fermented beverages, and food production. Requires high school chemistry.

Registration Consent: Instructor

CHEM 481 - Principles of Fermentation Chemistry and Biochemistry Laboratory - 2 (F)

Covers various aspects of fermentation with an emphasis on the basic chemical and biochemical changes that occur during the fermentation process.

Attributes: BPS, EL
Prerequisites: CHEM 480 Minimum Grade of C (concurrency allowed).

CHEM 482 - BioProcessing Chemistry and Biochemistry - 2 (S)

Covers the intermediate principles of the historical, scientific, technological, and cultural aspects of fermentation of chemistry and biofuels, fermented beverages, and food production.

Attributes: BPS
Prerequisites: CHEM 480 Minimum Grade of C AND CHEM 481 Minimum Grade of C.

CHEM 483 - BioProcessing Chemistry and Biochemistry Laboratory - 2 (S)

Will cover various aspects of fermentation with an emphasis on the intermediate chemical and biochemical changes that occur during the fermentation process.

Attributes: BPS, EL
Prerequisites: CHEM 482 Minimum Grade of C (concurrency allowed).

CHEM 484 - Advanced BioProcessing Chemistry and Biochemistry - 2 (M)

Covers advanced principles of the historical, scientific, technological, and cultural aspects of fermentation chemistry and biochemistry in biofuels, fermented beverages, and food production.

Attributes: BPS
Prerequisites: CHEM 482 Minimum Grade of C AND CHEM 483 Minimum Grade of C. Corequisites: CHEM 485.
Corequisites: CHEM485

CHEM 485 - Advanced BioProcessing Chemistry and Biochemistry Laboratory - 2

Will cover various aspects of fermentation with an emphasis on the advanced chemical and biochemical changes that occur during the fermentation process.

Attributes: BPS, EL
Prerequisites: CHEM 482 Minimum Grade of C AND CHEM 483 Minimum Grade of C. Corequisites: CHEM 484.
Corequisites: CHEM484

CHEM 494 - Methods of Teaching Science in Secondary Schools - 3 (F)

Teaching and resource materials for secondary science instruction. Planning and presenting lessons, problem solving techniques, controversial topics in the classroom, safety concerns, educational technology, pedagogical content knowledge.

Attributes: PS
Registration Consent: Instructor

CHEM 511 - Advanced Inorganic Chemistry - 3

Modern treatment of recent theoretical and experimental advances in interpretation of bonding and reactivity in inorganic compounds.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 519 - Advanced Topics in Inorganic Chemistry - 1 to 3

Magnetic resonance; rare earths; and inorganic reaction mechanisms. May be repeated up to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 531 - Advanced Analytical Chemistry - 3

Phenomena utilized; acid-base equilibria; activity; non-aqueous solvents; multiple equilibria; complexation precipitation; electrochemistry.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 537 - Forensic Chemistry Laboratory - 1

Forensic chemical and instrumental analysis methods for evidentiary materials including drugs of abuse, fibers, explosives, coatings, and polymers.

Prerequisites: Graduate level CHEM 432 Minimum Grade of C (concurrency allowed).
Restrictions: May not be enrolled as the following Levels: Undergraduate

CHEM 539 - Advanced Topics in Analytical Chemistry - 1 to 3

Chelation; chromatography; electrochemistry and analytical spectroscopy. May be repeated up to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 541 - Advanced Organic Chemistry - 3 (F)

Covalent bonding; structure; stereochemistry; reactions; reaction mechanisms; substituent effects; correlation of physical and chemical properties; and physical methods.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 549 - Advanced Topics in Organic Chemistry - 1 to 3

Topics selected by instructor (photochemistry, heterocyclic chemistry, steroid chemistry, etc). May be repeated up to a maximum of 6 hours as long as no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 551 - Advanced Biochemistry - 3 (S)

Modern treatment of biological chemistry including three-dimensional structure of enzymes; mechanism of co-enzymatic action; allosteric effects; physical methods for studying biological systems.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 559 - Advanced Topics in Biochemistry - 1 to 3

Enzymology, metabolism, nucleic acids, etc. May be repeated up to a maximum of 6 hours as long as no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 561 - Advanced Physical Chemistry - 3

Modern concepts and applications selected from thermodynamics, quantum chemistry, spectroscopy, kinetics, molecular modeling, and macromolecular perspective.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 569 - Advanced Topics in Physical Chemistry - 1 to 3

Topics selected by instructor: molecular modeling, phase diagrams, surface chemistry, etc. May be repeated to a maximum of 6 hours as long as no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CHEM 575 - Graduate Seminar - 1 (FMS)

Two advanced level talks required by all graduate students. Attendance at seminar is required of all full-time students. Must be repeated once for credit.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CHEM 596 - Advanced Chemical Problems - 1 to 4

Individual study of problem under direction of graduate faculty member; should be completed in one or two semesters. May be repeated to a maximum of 4 hours. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CHEM 597 - Chemical Research - 1 to 9 (FMS)

Directed research on significant problem, normally to extend over more than two semesters. May be repeated without limit, but only 9 hours will be accepted toward minimum 30 required for MS degree. Requires consent of instructor.

Restrictions: Must be enrolled in one of the

following Levels: Graduate

CHEM 599 - Thesis - 1 to 6 (FMS)

Directed research to satisfy thesis requirement for MS degree. Topic and thesis advisor must be approved by graduate committee. May be repeated to a maximum of 6 hours. Requires consent of thesis advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Curriculum and Instruction (CI)

CI 407 - The Middle and Junior High School - 3

Theoretical background and evolving trends in middle and junior high education; curriculum review; learning theories; methods of practice; management techniques.

Registration Consent: SEHHB Advisor

CI 410 - Principles of Early Childhood Education - 3

Examination of national and local programs in early childhood education with overview of issues, trends, and research.

CI 414 - Teaching Mathematics in Early Childhood Education. - 3

Mathematical concept development for Pre-K through Grade 3 teachers, emphasizing developmentally appropriate methodology and instructional strategies; and employing problem solving and inquiry-based learning.

Prerequisites: CI 301 AND CI 317 AND CI 323.
Restrictions: Must be enrolled in one of the following Majors: Early Chhd/Elem Ed,Elementary Education

CI 416 - Infant & Toddler Development & Education - 3

Study of current theories, knowledge, and practice concerning the growth and development of infants and toddlers.

CI 421 - Child Family and Community Relationships - 3

Parent involvement strategies: insight from community agency personnel pertaining to goals of early childhood and elementary programs.

Prerequisites: CI 301 OR CI 410.

CI 422 - Health and Nutrition for the Young Child - 3

Nutrition principles related to development of the young child, including food service selection and integration of nutrition concepts into early childhood curriculum.

Prerequisites: CI 301 and CI 410.

CI 424 - Literacy Strategies K-3 - 3

Literacy instructional strategies to meet the needs of diverse learners in K through grade three. Application of theory and pedagogy during field placement.

Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

CI 433A - Selected Topics in CI: Curriculum - 3

Selected topics: Curriculum. Each segment carries 3 credit hours and each segment may be repeated for up to a maximum of 9 hours. Requires consent of instructor.

Registration Consent: Instructor

CI 433B - Selected Topics in CI: Language Arts - 3

Selected topics: Language arts. Each segment carries 3 credit hours and each segment may be repeated for up to a maximum of 9 hours. Requires consent of instructor.

CI 433C - Selected Topics in CI: Science - 3

Selected topics: Science. Each segment carries 3 credit hours and each segment may be repeated for up to a maximum of 9 hours. Requires consent of instructor.

CI 433D - Selected Topics in CI: Reading - 3

Selected topics: Reading. Each segment carries 3 credit hours and each segment may be repeated for up to a maximum of 9 hours. Requires consent of instructor.

CI 433E - Selected Topics in CI: Social Science - 3

Selected topics: Social studies. Each segment carries 3 credit hours and each segment may be repeated for up to a maximum of 9 hours. Requires consent of instructor.

Registration Consent: Instructor

CI 433F - Selected Topics in CI: Math - 3

Selected topics: Mathematics. Each segment carries 3 credit hours and each segment may be repeated to a maximum of 9 hours. Requires consent of instructor.

Registration Consent: Instructor

CI 433G - Selected Topics in CI: Early Childhood - 3

Selected topics: Early childhood. Each segment carries 3 credit hours and each segment may be repeated for up to a maximum of 9 hours. Requires consent of instructor.

Registration Consent: Instructor

CI 433H - Selected Topics in CI: Elementary Education - 3

Selected topics: Elementary education. Each segment carries 3 credit hours and each segment may be repeated for up to a maximum of 9 hours. Requires consent of instructor.

Registration Consent: Instructor

CI 433I - Selected Topics in CI: Middle School - 3

Selected topics: Middle School Education. Each segment carries 3 credit hours and each segment can be repeated to a maximum of 9 hours. Requires consent of Instructor.

Registration Consent: Instructor

CI 433J - Selected Topics in CI: Secondary Education - 3

Selected topics: Secondary education. Each segment carries 3 credit hours and each segment may be repeated to a maximum of 9 hours. Requires consent of instructor.

CI 433K - Selected Topics in CI: Community College - 3

Selected topics: Community college. Each segment carries 3 credit hours and each segment may be repeated to a maximum of 9 hours. Requires consent of instructor.

CI 433L - Selected Topics in CI: Adult Education - 3

Selected topics: Adult education. Each segment carries 3 credit hours and each segment may be repeated to a maximum of 9 hours. Requires consent of instructor.

CI 433M - Selected Topics in CI: Environmental Education - 3

Selected topics: Environmental education. Each segment carries 3 credit hours and each segment may be repeated to a maximum of 9 hours. Requires consent of instructor.

CI 433N - Selected Topics in CI: Organization & Supervision - 3

Selected topics: Organization and supervision. Each segment carries 3 credit hours and each segment may be repeated to a maximum of 9 hours. Requires consent of instructor.

CI 434 - Teaching Science and Social Studies in Early Childhood - 3

Instructional strategies for teaching science and social studies in Pre-K through grade 3. Examination of functions, practices, and problematic issues of science and social studies education.

Prerequisites: CI 317.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

CI 440 - Adolescent Literacy - 3

Instructional theories, practices, and strategies for literacy across content areas in middle and high school; enhancing interest and motivation; and assessment of students' literacy performance.

Registration Consent: Advisor

CI 447 - Reading for Speech Language Pathologists - 3

Theories and models of reading as related to instruction; connections between reading and speech difficulties; and ways to help children overcome difficulties.

CI 471 - Teaching in the Multicultural Classroom - 3

Concepts and strategies for developing positive attitudes; increasing knowledge and selecting appropriate materials for teaching children from culturally diverse backgrounds.

CI 490A - Independent Readings and Projects in CI: Curriculum - 1 to 6 (S)

Independent Readings: Curriculum. Requires consent of Instructor.

Registration Consent: Instructor

CI 490B - Independent Readings and Projects in CI: Language Arts - 1 to 6

Independent Readings: Language Arts. Requires consent of Instructor.

Registration Consent: Instructor

CI 490C - Independent Readings and Projects in CI: Science - 1 to 6

Independent Readings: Science. Requires consent of Instructor.

Registration Consent: Instructor

CI 490D - Independent Readings and Projects in CI: Reading - 1 to 6

Independent Readings: Reading. Requires consent of Instructor.

Registration Consent: Instructor

CI 490E - Independent Readings and Projects in CI: Social Sciences - 1 to 6

Independent Readings: Social Studies. Requires consent of Instructor.

Registration Consent: Instructor

CI 490F - Independent Readings and Projects in CI: Mathematics - 1 to 6

Independent Readings: Mathematics. Requires consent of Instructor.

Registration Consent: Instructor

CI 490G - Independent Readings and Projects in CI: Early Childhood Education - 1 to 6 (S)

Independent Readings: Early Childhood Education. Requires consent of Instructor.

Registration Consent: Instructor

CI 490H - Independent Readings and Projects in CI: Elementary Education - 1 to 6 (FS)

Independent Readings: Elementary Education. Requires consent of instructor.

Registration Consent: Instructor

CI 490I - Independent Readings and Projects in CI: Middle School Education - 1 to 6

Independent Readings: Middle School Education. Requires consent of instructor.

Registration Consent: Instructor

CI 490J - Independent Readings and Projects in CI: Secondary School Education - 1 to 6

Independent Readings: Secondary school education. Requires consent of instructor.

Registration Consent: Instructor

CI 490K - Independent Readings and Projects in CI: Community College - 1 to 6

Independent Readings: Community College. Requires consent of instructor.

Registration Consent: Instructor

CI 490L - Independent Readings and Projects in CI: Adult Education - 1 to 6

Independent Readings: Adult Education. Requires consent of Instructor.

Registration Consent: Instructor

CI 490M - Independent Readings and Projects in CI: Environmental Education - 1 to 6

Independent Readings: Environmental Education. Requires consent of Instructor.

Registration Consent: Instructor

CI 490N - Independent Readings and Projects in CI: Organization and Supervision - 1 to 6

Independent Readings: Organization & Supervision. Requires consent of Instructor.

Registration Consent: Instructor

CI 495 - Selected Topics - 3 (FS)

Varied content; offered as need exists and as faculty interest and time permit. See CougarNet for specific topics offered.

CI 506 - Classroom Corrective Reading Instruction - 3

Appraisal of reading texts; establishment of instructional program and operation of teaching prescription for less severe reading disabilities.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 508 - Recent Issues & Trends in Secondary Education - 3

Popular and professional criticism of American secondary education. Innovations as they affect social organization of the instructional setting. Requires completion of half or more of the work leading to a Master's degree, consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 510A - Analysis of Instruction: P-12 - 3 (FS)

Teaching and relationship between teaching and learning in the area of P-12.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 510B - Analysis of Instruction: English Language Arts - 3

Teaching and relationship between teaching and learning in the area of English Language Arts.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510C - The Analysis of Instruction: Science - 3

Teaching and relationship between teaching and learning; impact of specific variables of teacher's role planning in the area of science.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510D - Analysis of Instruction: Literacy - 3

Teaching and relationship between teaching and learning in the area of Literacy.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510E - The Analysis of Instruction: Social Studies - 3

Teaching and relationship between teaching and learning; impact of specific variables of teacher's role planning in the area of social studies.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510F - The Analysis of Instruction: Mathematics - 3

Teaching and relationship between teaching and learning; impact of specific variables of teacher's

role planning in the area of mathematics.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510G - The Analysis of Instruction: Early Childhood Education - 3

Teaching and relationship between teaching and learning; impact of specific variables of teacher's role planning in the area of early childhood education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510H - The Analysis of Instruction: Elementary Education - 3

Teaching and relationship between teaching and learning; impact of specific variables of teacher's role planning in the area of elementary education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510I - The Analysis of Instruction: Middle School Education - 3

Teaching and relationship between teaching and learning; impact of specific variables of teacher's role planning in the area of Middle School education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510J - The Analysis of Instruction: Secondary Education - 3

Teaching and relationship between teaching and learning; impact of specific variables of teacher's role planning in the area of secondary education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510M - The Analysis of Instruction: Environmental Education - 3

Teaching and relationship between teaching and learning; impact of specific variables of teacher's role planning in the area of Environmental Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 510O - Analysis of Instruction: Culturally Relevant Pedagogy - 3

Teaching and relationship between teaching and learning in the area of Culturally Relevant Pedagogy. Maximum of 3 credits per area of 510 coursework, maximum of 6 credits in 510 coursework overall.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 511 - Differentiated Instruction - 3 (FM)

Principles and practices of differentiated curriculum, instruction, and assessment to address the needs and interests of all learners, including the integration of technology.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 512 - Issues & Trends in Assessment - 3

Examination of the multi-faceted role of assessment, issues surrounding assessment practices, including the complexity of evaluating student learning in diverse classrooms.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 513 - Literature Across the Curriculum - 3 (M)

Incorporating children's and adolescent literature into content area studies.

Prerequisites: Graduate level CI 413 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 514A - Teaching, Learning, and Assessment in K-8 Mathematics: Addition/Subtraction - 1 to 3

(a) Addition/Subtraction; (b) Multiplication/Division; (c) Fractions, Decimals, Percents; (d) Algebraic Reasoning; (e) Geometry; (f) Measurement; (g) Data Analysis, Probability, Statistics. Max of 3 credits per segment, 9 credits overall.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 514B - Teaching, Learning, and Assessment in K-8 Mathematics: Multiplication and Division - 1 to 3

(a) Addition/Subtraction; (b) Multiplication/Division; (c) Fractions, Decimals, Percents; (d) Algebraic Reasoning; (e) Geometry; (f) Measurement; (g) Data Analysis, Probability, Statistics. Max of 3 credits per segment, 9 credits overall.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 514C - Teaching, Learning, and Assessment in K-8 Mathematics: Fractions, Decimals, Percents - 1 to 3

(a) Addition/Subtraction; (b) Multiplication/Division; (c) Fractions, Decimals, Percents; (d) Algebraic Reasoning; (e) Geometry; (f) Measurement; (g) Data Analysis, Probability, Statistics. Max of 3 credits per segment, 9 credits overall.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 514D - Teaching, Learning, and Assessment in K-8 Mathematics: Algebraic Reasoning - 1 to 3

(a) Addition/Subtraction; (b) Multiplication/Division; (c) Fractions, Decimals, Percents; (d) Algebraic Reasoning; (e) Geometry; (f) Measurement; (g) Data Analysis, Probability, Statistics. Max of 3 credits per segment, 9 credits overall.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 514E - Teaching, Learning, and Assessment in K-8 Mathematics: Geometry - 1 to 3

(a) Addition/Subtraction; (b) Multiplication/Division; (c) Fractions, Decimals, Percents; (d) Algebraic Reasoning; (e) Geometry; (f) Measurement; (g) Data Analysis, Probability, Statistics. Max of 3 credits per segment, 9 credits overall.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 514F - Teaching, Learning, and Assessment in K-8 Mathematics: Measurement - 1 to 3

(a) Addition/Subtraction; (b) Multiplication/Division; (c) Fractions, Decimals, Percents; (d) Algebraic Reasoning; (e) Geometry; (f) Measurement; (g) Data Analysis, Probability, Statistics. Max of 3 credits per segment, 9 credits overall.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 514G - Teaching, Learning, and Assessment in K-8 Mathematics: Data Analysis, Probability, Statistics - 1 to 3

(a) Addition/Subtraction; (b) Multiplication/Division; (c) Fractions, Decimals, Percents; (d) Algebraic Reasoning; (e) Geometry; (f) Measurement; (g) Data Analysis, Probability, Statistics. Max of 3 credits per segment, 9 credits overall.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 515A - Issues & Trends in Elementary Math: Computers & Mathematical Learning - 3

Significant issues and current trends which affect methodology and subject matter with a focus on computer based technologies and how they impact mathematical learning.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 515B - Issues & Trends in Elementary Math: Curriculum Development - 3

Issues & Trends in Elementary Math: Curriculum development.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 515C - Issues & Trends in Elementary Math: Problem Solving - 3

Issues & Trends in Elementary Math: Problem solving.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 515D - Issues & Trends in Elementary Math: International Approaches to Mathematics Education - 3

Issues & Trends in Elementary Math: International approaches to mathematics education.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 515E - Issues & Trends in Elementary Math: Research on Children's Mathematical Thinking - 3

Issues & Trends in Elementary Math: Research on children's mathematical thinking. Up to 3 segments may be taken to a maximum course total of 9 hours. Segments may not be repeated.

Prerequisites: CI 415 Minimum Grade of C OR CIED 441 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 518 - Supervision of Student Teacher - 1 to 3 (M)

Expectations and responsibilities of teachers who supervise student teachers and other clinical experience students. Emphasis given to using clinical supervision model.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 519 - An Adventure of the American Mind - 3 (M)

Methods and materials designed for use with pre-service and in-service teachers utilizing primary sources and integrating technology. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 519B - Teaching with Primary Sources - 3

In-depth study on research and practice of using primary sources and Library of Congress digital collections to enhance K-12 instruction.

Prerequisites: Graduate level CI 519 Minimum Grade of C.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 520 - Theoretical Foundations in Literacy - 3 (M)

Provides a foundation in literacy education including historical and theoretical perspectives as they pertain to reading, writing, listening, and speaking.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 521 - Emergent & Primary Level Literacy - 3

Advanced application of theory and practice for teaching emergent and primary literacy including assessments, methods, strategies, literature, and materials for diverse and English language learners.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 522 - Word Study: Strategies for Phonics, Structural Analysis, Spelling and Vocabulary - 3

Stages of word knowledge development, including phonemic awareness, phonics, structural analysis, spelling, vocabulary. Effective instruction to understand, read and write words.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 523 - Restorative Practice: Working with Students in PK-12 - 3

Explores the fundamental principles, philosophy, theories, practices, models and skills of restorative practices. Special emphasis will be placed on proactive and responsive circles, restorative conferencing and the informal application of these processes. This is for PK-12 educators.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 525 - Upper Elementary and Middle Level Literacy - 3

Advanced application of theory and practice for teaching upper elementary/middle level literacy including assessments, methods, strategies, literature, and materials for diverse and English

language learners.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 526 - Adult Literacy - 3

Application of literacy theory and pedagogy to adults seeking to further language arts skills by understanding language, learning language arts, and developing adult literacy curriculum.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 527 - Curriculum Models: PK-12 Trauma Informed Curriculum - 3

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 530 - Child Development: Classrooms, Families, and Communities - 3

Extends prior knowledge of child development and curriculum to enhance skills in creating appropriate learning environments and effective teaching strategies for young children and families.

Prerequisites: Graduate level CI 410 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 531 - Early Childhood Education: An International Perspective - 3

Comparison of structure and implementation of early childhood education in the United States and other countries focusing on factors effecting similarities and differences.

CI 532 - Readings in Early Childhood Education - 1 to 3

Independent reading; acquaintance with literature and research; conference periods. May be repeated for up to a maximum of 6 hours.

Prerequisites: Graduate level CI 410 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 534A - Readings in Elementary Education: Language Arts - 3

Independent reading in a specific content area within the elementary education curriculum. (A) Language Arts.

CI 534B - Readings in Elementary Education: Sciences - 3

Independent reading in a specific content area within the elementary education curriculum. (B) Science.

CI 534C - Readings in Elementary Education: Social Studies - 3

Independent reading in a specific content area within the elementary education curriculum. (C) Social Studies.

CI 535 - Organization & Management of Early Childhood Centers - 3

Current trends of implementing early childhood education into public school programs; techniques of administration, coordination, and program evaluation.

Prerequisites: Graduate level CI 410 Minimum Grade of C.

CI 536 - Advanced Early Childhood Studies: Historical Perspectives and Current Issues and Practices - 3

Explores the history, philosophy, and current trends, issues, and practices that guide the work of early childhood professionals.

Restrictions: Must be enrolled in one of the following Majors: Curriculum and Instruction, Must be enrolled in one of the following Levels: Graduate

CI 537 - Early Childhood Curriculum - 3

Theory, design, organization, interpretation, and evaluation of early childhood curriculum.

Restrictions: Must be enrolled in one of the following Majors: Curriculum and Instruction, Must be enrolled in one of the following Levels: Graduate

CI 538 - Advanced Assessment Strategies for Early Childhood Classrooms - 3

Prepares reflective, collaborative early educators who integrate theory and practice while making informed decisions related to assessment within the teaching-learning process. Requires admission to graduate program or consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Curriculum and Instruction, Must be enrolled in one of the following Levels: Graduate

CI 539 - Poverty in Schools: Working with At-Risk Students (PK-12) - 3

In this course the nature, causes, and effects of poverty, and how to identify the individual challenges students face as well as their strengths and inner resources to increase individualized support, will be taught. The goals of this course is to have enrolled students have a toolbox of effective strategies for helping students of lower socioeconomic status succeed in the classroom and beyond.

Restrictions: Must be enrolled in one of the following Majors: Curriculum and Instruction, Must be enrolled in one of the following Levels: Graduate

CI 540 - Disciplinary Literacy - 3

Advanced application of theory and practice for teaching disciplinary literacy including assessments, methods, strategies, literature, and materials for diverse learners including English language learners.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 541 - Issues & Trends in Elementary School: Science - 3

Significant issues and current trends which affect methodology and subject matter. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 544 - Issues & Trends in Elementary School: Social Studies - 3

Significant issues and current trends which affect methodology and subject matter.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 545 - Issues & Trends in Elementary School: Language Arts - 3

Significant issues and current trends which affect methodology and subject matter.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 546 - Environmental Education - 3

Content and methods of teaching environmental education; and integration of environmental problems into each academic discipline.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548A - Action Research: P-12 - 3 (FMS)

Action research methodology, ethics of research, project planning, and academic research and writing in the area of P-12. Three credit hours per area of 548 coursework, max of 6 credit hours of all 548 coursework.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548B - Action Research: English Language Arts - 3

Action research methodology, ethics of research, project planning, and academic research and writing in the area of English Language Arts. Three credit hours per area of 548 coursework, max of 6 credit hours of all 548 coursework.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548C - Study of Classroom Instruction:

Science - 3

Course in action research methodology as applied to classroom instruction; ethics of classroom research; project planning; and academic research and writing in the area of Science.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548D - Action Research: Literacy - 3

Action research methodology, ethics of research, project planning, and academic research and writing in the area of Literacy. Three credit hours per area of 548 coursework, max of 6 credit hours of all 548 coursework.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548E - Study of Classroom Instruction: Social Studies - 3

Course in action research methodology as applied to classroom instruction; ethics of classroom research; project planning; and academic research and writing in the area of Social Studies.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548F - Study of Classroom Instruction: Mathematics - 3

Course in action research methodology as applied to classroom instruction; ethics of classroom research; project planning; and academic research and writing in the area of Mathematics.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548G - Study of Classroom Instruction: Early Childhood Education - 3

Course in action research methodology as applied to classroom instruction; ethics of classroom research; project planning; and academic research and writing in the area of Early Childhood Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548H - Study of Classroom Instruction: Elementary Education - 3

Course in action research methodology as applied to classroom instruction; ethics of classroom research; project planning; and academic research and writing in the area of Elementary Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548I - Study of Classroom Instruction: Middle School Education - 3

Course in action research methodology as applied to classroom instruction; ethics of classroom research; project planning; and academic research and writing in the area of Middle School Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548J - Study of Classroom Instruction: Secondary Education - 3

Course in action research methodology as applied to classroom instruction; ethics of classroom research; project planning; and academic research and writing in the area of Secondary Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 548M - Study of Classroom Instruction: Environmental Education - 3

Course in action research methodology as applied to classroom instruction; ethics of classroom research; project planning; and academic research and writing in the area of Environmental Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 550 - Practicum in Early Childhood Education - 3 to 6

Teaching experience in early childhood education setting under guidance of experienced teacher. Seminar accompanies classroom experience.

Prerequisites: Graduate level CI 410 Minimum Grade of C AND Graduate level CI 412 Minimum Grade of C AND Graduate level CI 530 Minimum

Grade of C.

CI 551 - Community/Junior College C&I - 3

Evaluation of research relating to and factors bearing on improvement of curriculum and instruction; major emphasis on teaching techniques, competencies, and innovations.

CI 555 - Improving Instruction in the Middle & Junior High Schools - 3

Characteristics of young adolescents; typical middle level content; classroom management; planning instruction and assessment; and teaching and learning strategies appropriate for middle level students.

Prerequisites: Graduate level CI 407 Minimum Grade of C.

CI 556 - Classroom Learning Environments - 3

Theories of human development, learning, motivation, group processes, and culturally relevant pedagogy in relation to the development of productive classroom learning environments for diverse students.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 557 - Teaching in Elementary/Middle/Secondary Schools: Block I - 12

Curriculum, pedagogy, assessment, classroom learning environments, educational psychology, special education, literacy in content areas, integration of technology, and foundations of education for elementary/middle/secondary schools. Requires consent of program director.

Restrictions: Must be enrolled in one of the following Majors: Master of Arts in Teaching, May not be enrolled as the following Levels: Undergraduate

CI 558 - Teaching in Elementary/Middle/Secondary Schools: Block II - 12 (F)

Curriculum, pedagogy, assessment, classroom learning environments, educational psychology, special education, literacy in content areas, integration of technology, and foundations of education for elementary/middle/secondary schools.

Prerequisites: Graduate level CI 557 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 559 - Teaching in Elementary/Middle/Secondary Schools: Block III - 12 (S)

Curriculum, pedagogy, assessment, classroom learning environments, educational psychology, special education, literacy in content areas, integration of technology, and foundations of education for elementary/middle/secondary schools. Includes a semester of student teaching.

Prerequisites: Graduate level CI 557 Minimum Grade of C AND Graduate level CI 558 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CI 561 - The Elementary School Curriculum - 3

Reorganization, construction, and administration of elementary school curriculum; installation, adaptation, and administration of revised curriculum.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 562 - The Secondary School Curriculum - 3

Modern curriculum patterns; group processes in curriculum construction; creative project approach to course design in one's major instructional field.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 563A - Curriculum Models: Curriculum - 3 (FS)

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical

problems of curriculum planning in the area of Curriculum.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563B - Curriculum Models: Language Arts - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Language Arts.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563C - Curriculum Models: Science - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Science.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563D - Curriculum Models: Reading - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Reading.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563E - Curriculum Models: Social Studies - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Social Studies.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563F - Curriculum Models: Mathematics - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Mathematics.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563G - Curriculum Models: Early Childhood Education - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Early Childhood Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563H - Curriculum Models: Elementary Education - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Elementary Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563I - Curriculum Models: Middle School Education - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Middle School Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563J - Curriculum Models: Secondary Education - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Secondary Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563K - Curriculum Models: Community College - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Community College.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563L - Curriculum Models: Adult Education - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Adult Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563M - Curriculum Models: Environmental Education - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Environmental Education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 563N - Curriculum Models: Organization and Supervision - 3

Curriculum Models: Curriculum theories and their associated strategic models; alternative concepts underlying curriculum development; and practical problems of curriculum planning in the area of Organization and Supervision.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 564A - NBPTS Certification Support - 3

This is the first course of a two course sequence offered specifically for teachers seeking the National Board for Professional Teaching Standards certification. Students must be applying for NBPTS certification.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 564B - NBPTS Certification Support - 3

This is the second course in a two course sequence offered specifically for teachers seeking the National Board for Professional Teaching Standards certification.

Prerequisites: Graduate level CI 564A Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 565 - Beginning Teachers Self Assessment - 4

Course fulfills the 'course for self-assessment' option for beginning teachers seeking to move from initial to standard teaching certificate. Prerequisites: initial teaching certificate and three years or less teaching experience.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 566 - Approaches to Values Education - 3

Development of professional competencies in helping others with values growth. Study of theory and practice of methodology of alternative approaches.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 567 - Curriculum Design - 3

Examine relationships between curriculum and instruction, including the design and delivery of curriculum to improve instructional processes and student learning.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 568 - Seminar on Current Issues in Curriculum and Instruction - 1 to 3 (M)

Examination of current issues in curriculum and/or instruction. May be repeated to a maximum of 9

hours provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 570 - Teaching and Learning in the 21st Century - 3

Explores curricular and instructional shifts needed in 21st century education, including essential skills and literacies, learning environments, instructional and assessment practices.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 571 - Literacy Diagnostics: Assessment and Instruction - 3

Administration and analysis of formal and informal assessments of cognitive, academic, and literacy development to plan instruction. Writing of diagnostic reports. Requires students to pass the Illinois Content Area Reading Specialist Test (176) or consent of instructor.

Prerequisites: Graduate level CI 520 Minimum Grade of C AND Graduate level CI 521 Minimum Grade of C AND Graduate level CI 525 Minimum Grade of C AND Graduate level CI 540 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 572 - Diagnostics Literacy Practicum: Elementary Level - 3 (F)

Supervised clinical practicum for planning and implementing diagnostic lessons linking assessment analysis with appropriate practices to enhance the literacy development of elementary level students.

Prerequisites: Graduate level CI 571 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 573 - Diagnostic Literacy Practicum: Middle & Secondary Level - 3

Supervised clinical practicum for planning and implementing diagnostic lessons linking assessment analysis with appropriate practices to enhance the literacy development of middle/secondary level students.

Prerequisites: Graduate level CI 571 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 575A - Individual Research: Curriculum - 1 to 6 (FMS)

Individual Research: Curriculum & Instruction. May be repeated for a maximum of 6 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 575B - Individual Research: Language Arts - 1 to 3

Individual Research: Language Arts. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 575C - Individual Research: Science - 1 to 3

Individual Research: Science. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 575D - Individual Research: Reading - 1 to 3

Individual Research: Reading. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 575E - Individual Research: Social Studies - 1 to 3

Individual Research: Social Studies. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 575F - Individual Research: Mathematics - 1 to 3

Individual Research: Mathematics. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 575G - Individual Research: Early Childhood Education - 1 to 3

Individual Research: Early Childhood Education. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 575H - Individual Research: Elementary Education - 1 to 3

Individual Research: Elementary Education. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 575I - Individual Research: Middle School Education - 1 to 3

Individual Research: Middle School Education. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 575J - Individual Research: Secondary Education - 1 to 3

Individual Research: Secondary Education. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 575K - Individual Research: Community College - 1 to 3

Individual Research: Community College. May be repeated for a maximum of 3 hours if no topic is repeated.

CI 575L - Individual Research: Adult Education - 1 to 3

Individual Research: Adult Education. May be repeated for a maximum of 3 hours if no topic is repeated.

CI 575M - Individual Research: Environmental Education - 1 to 3

Individual Research: Environmental education. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 575N - Individual Research: Organization & Supervision - 1 to 3 (F)

Individual Research: Organization and supervision. May be repeated for a maximum of 3 hours if no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 576 - Readings in Reading - 1 to 3

Independent reading; acquaintance with literature research; conference periods. May be repeated for a maximum of 3 hours if no topic is repeated.

Prerequisites: Graduate level CI 505 Minimum Grade of C.

CI 577 - Practicum in Reading - 3 to 6

For advanced students. Teaching demonstrations and evaluations. Each student works with a group of reading disability cases.

Prerequisites: Graduate level CI 572 Minimum Grade of C.

CI 578 - Organization & Administration of Literacy Programs - 3

Managing literacy instruction for a total school population. Leadership of needs assessment, program planning, curriculum construction, organization, assessment, staff development and program evaluation.

Prerequisites: Graduate level CI 571 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 580 - Innovation and Change in Education - 3

Foundations of change processes, relationships between innovation and change, factors that promote innovation and change, barriers to change.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 581 - Foundations of Teacher Leadership - 3

Examination of the knowledge, skills, and dispostions required of teachers who serve as curriculum and instruction leaders in educational settings.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 582 - Becoming a Teacher Leader: Mentor and Coach - 3 (S)

Designed for teachers to build and refine knowledge, skills, and dispositions to support teacher development through instructional coaching in content areas.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 583 - Leadership in Prof Development - 3 (FS)

Examination of the knowledge, skills, and dispositions needed by teacher leaders who plan, implement, and evaluate professional development experiences in content areas.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 588 - Curriculum and Instruction Graduate Co-op - 0

Education-related work in a school, educational center, or other business or agency under the supervision of a field supervisor.

Prerequisites: Minimum cumulative GPA of 3.0.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 591 - Issues & Trends in Literacy Instruction - 3

Current issues and trends in instructional approaches, materials, methodologies, assessment techniques, leadership roles and the impact of political policy on literacy instruction.

Prerequisites: Graduate level CI 571 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CI 596A - Field Study In Curriculum and Instruction: P-12 - 1 to 3 (FS)

Identify problem, survey pertinent literature, collect and analyze data, draw appropriate conclusions in P-12. Max of 6 credit hours of 596 coursework.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CI 596B - Field Study in Curriculum and Instruction: English Language Arts - 1 to 3

Identify problem, survey pertinent literature, collect and analyze data, draw appropriate conclusions in English Language Arts. Max of 6 credit hours of 596 coursework.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 596C - Field Study In Early Childhood, Elementary, and Secondary Education: Science - 3 to 7

Selecting the problem; surveying pertinent literature; recording results; and making appropriate summaries and generalizations in the area of

Science. May be repeated to a maximum of 7 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 596D - Field Study in Curriculum and Instruction: Literacy - 1 to 3

Identify problem, survey pertinent literature, collect and analyze data, draw appropriate conclusions in Literacy. Max of 6 credit hours of 596 coursework.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CI 596E - Field Study In Early Childhood, Elementary, and Secondary Education: Social Studies - 3 to 7

Selecting the problem; surveying pertinent literature; recording results; and making appropriate summaries and generalizations in the area of Social Studies. May be repeated to a maximum of 7 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 596F - Field Study In Early Childhood, Elementary, and Secondary Education: Mathematics - 3 to 7

Selecting the problem; surveying pertinent literature; recording results; and making appropriate summaries and generalizations in the area of Mathematics. May be repeated to a maximum of 7 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CI 596G - Field Study In Early Childhood, Elementary, and Secondary Education: Early Childhood Education - 3 to 7

Selecting the problem; surveying pertinent literature; recording results; and making appropriate summaries and generalizations in the area of Early Childhood Education. May be repeated to a maximum of 7 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 596H - Field Study In Early Childhood, Elementary, and Secondary Education: Elementary Education - 3 to 7

Selecting the problem; surveying pertinent literature; recording results; and making appropriate summaries and generalizations in the area of Elementary Education. May be repeated to a maximum of 7 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 596I - Field Study In Early Childhood, Elementary, and Secondary Education: Middle School Education - 3 to 7

Selecting the problem; surveying pertinent literature; recording results; and making appropriate summaries and generalizations in the area of Middle School Education. May be repeated to a maximum of 7 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 596J - Field Study In Early Childhood, Elementary, and Secondary Education: Secondary Education - 3 to 7

Selecting the problem; surveying pertinent literature; recording results; and making appropriate summaries and generalizations in the area of Secondary Education. May be repeated to a maximum of 7 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CI 596M - Field Study In Early Childhood, Elementary, and Secondary Education: Environmental Education - 3 to 7

Selecting the problem; surveying pertinent literature; recording results; and making appropriate summaries and generalizations in the area of Environmental Education. May be repeated to a maximum of 7 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 596O - Field Study in Curriculum and Instruction: Foreign Language - 1 to 3

Identify problem, survey pertinent literature, collect and analyze data, draw appropriate conclusions in Foreign Languages. Max of 6 credit hours of 596 coursework.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 596P - Field Study in Curriculum and Instruction: Culturally Relevant Pedagogy - 1 to 3

Identify problem, survey pertinent literature, collect and analyze data, draw appropriate conclusions in Culturally Relevant Pedagogy. Max of 6 credit hours of 596 coursework.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CI 598 - Curriculum and Instruction Graduate Internship - 0 to 3

Education-related work in a school, educational center, or other business or agency under the supervision of a field supervisor. Maximum of 3 hours. Prerequisites: Consent of Instructor.

Prerequisites: Minimum cumulative GPA of 3.0..
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CI 599 - Thesis - 1 to 6

May be repeated for a maximum of 6 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Curr & Instr in Education (CIED)

CIED 424 - Learning and Teaching English Language Arts at the Middle Level - 3 (M)

Course will focus on applying theory and principles to effective strategies in order to promote Literacy in the middle grades.

Registration Consent: SEHHB Advisor

CIED 425 - Learning and Teaching Mathematics at the Middle Level - 3 (M)

Designed around professional principles and standards. Course will focus on mathematics, equity, curriculum, teaching, learning, assessment, technology, and participation in a professional community.

Prerequisites: CIED 313 (concurrency allowed) AND (CIED 322 (concurrency allowed) OR CIED 323 (concurrency allowed))
Registration Consent: SEHHB Advisor

CIED 427 - Learning and Teaching Social Studies at the Middle Level - 3 (M)

Provides context in which prospective middle level social studies teachers examine, utilizing a critical perspective, the functions, practices, and problematic issue of social studies education.

Registration Consent: SEHHB Advisor

CIED 433 - Methods and Materials for Teaching Pre-K and Primary Dual & Second Language Learners - 3 (F)

This course will provide you with the knowledge and skills to implement strategies, methods, approaches, and best practices for teaching Dual Language Learners (DLLs) in pre-kindergarten and primary grades settings. It is intended as an overview course of important concepts of teaching young DLLs, including foundational information, general teaching strategies, and specific strategies for developing language and academic concepts.

Restrictions: Must be enrolled in one of the following Majors: Early Childhood Education
Registration Consent: SEHHB Advisor

CIED 460 - Identity and Bias - 3 (S)

This course requires an introspective critical reflection of socially constructed identities and the bias that accompanies them. Unpacking socialization and the inherent biases we all hold will allow the space for current educators to unpack their own biases and re-think stereotypes. Participants will gain specific instructional strategies to create inclusive learning environments that minimize bias and increase academic performance in

students.Participants will need to have completed a Bachelor's Degree in an educational field, seeking continuing education units for licensure, and/or be admitted into a graduate program for educators.

CIED 461 - Culturally Responsive Pedagogy - 3

This course is designed to support the current classroom teacher in modifying their pedagogical practice to a culturally responsive practice. Studying the tenants of Critical Race Theory with the culturally responsive practice will support the academic performance of students of color. Participants will have opportunities to receive guided support while they re-construct their teaching practice to be culturally responsive and socially just. Participants will need to have completed a Bachelor's Degree in an educational field, seeking continuing education units for licensure, and/or be admitted into a graduate program for educators.

Registration Consent: Instructor

CIED 462 - Whiteness and Microaggressions in Public Education - 3

This course is designed to illuminate public schools as institutions of whiteness. Participants will critically analyze policies within public education that uphold and privilege whiteness while targeting and marginalizing students of color. Reviewing a history of public education's racial apartheid and de-segregation as an explanation of the current race- and class-based achievement gaps. Additionally, explicit instruction on the use of microaggressions as a form of keeping students "in their place" will be deconstructed and critically analyzed in order to minimize achievement gaps. Participants will need to have completed a Bachelor's Degree in an educational field, seeking continuing education units for licensure, and/or be admitted into a graduate program for educators.

Registration Consent: Instructor

CIED 463 - Socially Just Curricula - 3

This course will support the participants in researching and developing socially just curricula to their classrooms. Regardless of discipline or grade level, participants will have the one-on-one support for altering their practice and content to deliver high quality socially just curricula in a culturally responsive pedagogy. Participants will need to have completed a Bachelor's Degree in an educational field, seeking continuing education units for licensure, and/or be admitted into a graduate program for educators.

Prerequisites: CIED 460 AND CIED 461 AND CIED 462.
Registration Consent: Instructor

Computing and Info Systems (CIS)

CIS 590 - Independent Study - 1 to 3

Selected topics under faculty supervision. May be repeated to maximum of 3 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CIS 595 - Special Project - 1 to 6

Independent research in computing and information systems, software design project, or combination of both. May be repeated for a maximum of 6 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Criminal Justice Studies (CJ)

CJ 408 - Critical Issues in Law Enforcement - 3 (M)

Examination and analysis of issues in policing including training and socialization; management and organization; deviance; minority recruitment; community based efforts; and use of force.

Attributes: SS

CJ 420 - United States Drug Policy - 3 (F)

Examine historical and contemporary drug use and policy efforts, including secondary problems affiliated with drugs; and the war on drugs and its impact nationally and internationally.

Attributes: ERGU, SS

CJ 450 - Neighborhoods and Crime: Exploring Spatial Dimensions of Crime - 3

To develop an understanding of the relationship between communities and the way they contribute in shaping and controlling patterns of crime and delinquency.

Attributes: BSS
Prerequisites: CJ 273 Minimum Grade of C or graduate standing (GM).

CJ 454 - Capital Punishment - 3 (S)

Explores the history, practice, and legal status of the death penalty in the United States and other countries.

Attributes: SS
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

CJ 464 - Mental Health and the Criminal Justice System - 3

Explores treatment of individuals with mental illness by police, courts, and corrections. Insanity defense, competency, commitment, diversion, and CIT discussed.

Attributes: SS

CJ 465 - Theories of the Just Society - 3 (F)

Examines various constructions of the just society and the functions of government. Students consider the role of law and its relationship to justice for citizens.

Attributes: SS
Prerequisites: CJ 273 Minimum Grade of C.

CJ 474 - Genetic Investigations - 3

Covers DNA basics and analytic methods to understand the variety of DNA-based tools used by law enforcement to identify perpetrators of violence and to identify remains.

Prerequisites: CJ 111 Minimum Grade of C

CJ 475 - Cold Case Investigations - 3 (FS)

Collaborating with Illinois State Police, students gain exposure to investigation and evidence management, by creating a case synopsis. Students help assess the probability of case closure.

Registration Consent: Instructor

CJ 490 - Cybercrime - 3 (S)

Discusses such issues as defining cybercrime, technology, information and data in security management, types of abuse, attacks and crime, and who commits cybercrime.

Attributes: SS

CJ 502 - Applied Research in Criminal Justice System - 3 (F)

The foundations of inquiry, the various approaches to the study of social phenomena, and several analytical techniques are presented, discussed, and practiced. Prerequisite: an undergraduate statistics course.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 505 - Criminological Theory - 3 (F)

Explores the questions, "Why do people commit crime?" and "Why do people conform?" Examines in detail the extant criminological theories that attempt to address those concerns.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 508 - Disparate Treatment in the Criminal Justice System - 3

Some populations experience the criminal justice system differently than others; women, minorities, LGBT population, and all are studied as offenders, victims, and criminal justice employees.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 513 - Criminal Justice Statistics - 3 (F)

Focuses on advanced statistical techniques used in criminal justice research with emphasis on

interpreting results; multivariate techniques, particularly regression, are emphasized. Includes theory and practical application to policy issues.

Prerequisites: Graduate level CJ 502 Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 515 - Criminal Justice Planning & Budgeting - 3 (MS)

Discusses criminal justice organizational structure, interagency collaboration, public sector budgets including personnel, operating and capital improvement issues, data communication and organizational change potential.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 517 - Policy Analysis in Criminal Justice - 3 (S)

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 528 - Civil Liability in Criminal Justice - 3

Potential civil liability for police, court and corrections officials in processing suspects, defendants, and offenders. Negligence, force, risk, and rights discussed.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 529 - Human Trafficking - 3 (S)

Analysis of various forms of domestic and international human trafficking, as well as the legal and social measures being taken to identify and protect survivors while punishing offenders.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 535 - Seminar in Juvenile Justice - 3

Explores current issues in juvenile justice, including girls; gangs; school safety; threat assessment; juvenile sex offenders; and applying the public health model to juvenile justice.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 540 - Seminar in Correctional Theory and Practice - 3

Focuses on the practice and theory of the correctional system. Primary focus is on the institutional environment, but attention will also be paid to corrections in the community.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 590 - Special Topics - 3

Topic will be selected by faculty/instructor of record. Check with Program Director for specific topic in relevant semester.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 596 - Readings in Criminal Justice Policy - 3 (F)

Allows students one option to study individualized topic of interest; or option to request prior learning assessment credit for learning outside traditional university.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CJ 598 - Capstone I and II - 3 or 6 (FMS)

Requires proposed policy, procedure, or program development to benefit criminal justice agency. Student completes Capstone I and II for 6 credits.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

CJ 599 - Thesis I and II - 3 or 6 (FMS)

Requires 20-30 page thesis. Must complete twice (as Thesis I and Thesis II) for a total of 6 credit hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

Computer Mgmt. & Info. Systems (CMIS)

CMIS 515 - Project Management Standard Processes for Healthcare Informatics - 3 (FM)

Framework of standard processes based on the Project Management Body of Knowledge, including processes for managing scope, time, quality, cost, HR, communications, risk and procurement.

Restrictions: Must be enrolled in one of the following Majors: Healthcare Informatics, Must be enrolled in one of the following Levels: Graduate

CMIS 517 - Systems Analysis Methodologies for Healthcare Informatics - 3 (FS)

Tools, techniques, and methodologies used for information systems analysis and design in the healthcare field.

Restrictions: Must be enrolled in one of the following Majors: Healthcare Informatics, Must be enrolled in one of the following Levels: Graduate

CMIS 518 - Information Security for Healthcare Informatics - 3 (FM)

Introduction to technical/administrative aspects of information security and assurance. Provides an understanding of key issues with protecting information and designing effective information security systems.

Restrictions: Must be enrolled in one of the following Majors: Healthcare Informatics, Must be enrolled in one of the following Levels: Graduate

CMIS 526 - Information Systems and Technology - 3 (FMS)

Information systems and state-of-the-art information technology with a middle-level managerial focus.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CMIS 527 - Information Systems Security and Analytics - 3 (S)

Introduction to Information Systems (IS) security principles, practices, theory, use of data and analytics for information security analysis. Analytical tools used are Python and R.

Prerequisites: Graduate level CMIS 566 Minimum Grade of B.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CMIS 528 - Strategic Management of Information Technology - 3 (S)

Management of the IT (information technology) function and emerging technologies with a strategic-level focus.

Prerequisites: Graduate level CMIS 526 Minimum Grade of C.
Restrictions: May not be enrolled as one of the following Majors: Management Information Systems, Must be enrolled in one of the following Levels: Graduate

CMIS 530 - Introduction to Cybersecurity - 3

Introduction to technical/administrative aspects of information security and assurance. Provides an understanding of key issues with protecting information and designing effective information security systems.

Restrictions: Must be enrolled in one of the following Majors: Management Information Systems, May not be enrolled as the following Levels: Undergraduate

CMIS 532 - Risk Management and Security Operations - 3

Course covers key concepts in cybersecurity including contingency & disaster recovery planning, incidence response, leadership, threat intelligence, network & physical security.

Prerequisites: Graduate level CMIS 530 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Management Information Systems, May not be enrolled as the following Levels: Undergraduate

CMIS 534 - Governance, Risk, and Compliance in Cybersecurity - 3

Course addresses governance frameworks such as ITIL, COBIT, ISO & NIST; using policies, audits and controls in cybersecurity; ethical and legal issues

related to security.

Prerequisites: Graduate level CMIS 530 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Management Information Systems, May not be enrolled as the following Levels: Undergraduate

CMIS 536 - Advanced Cybersecurity Topics - 3

This course explores advanced cybersecurity topics relevant to business leaders, including emerging threats, regulatory challenges, and strategic risk management in complex digital environments.

Prerequisites: Graduate level CMIS 532 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Management Information Systems, May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 538 - Managing the Cloud - 3 (F)

Concepts, strategies, and real-world cases dealing with Cloud management including risk management, service management, and implementation. Includes opportunity for industry-standard cloud certification.

Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 539 - Cybersecurity Practical Applications - 3

Structured prep for a standard cybersecurity certification exam on security & risk mgt.; asset, architecture, network & communications; IAM; assessment & testing, and security operations.

Prerequisites: Graduate level CMIS 526 Minimum Grade of C AND Graduate level CMIS 536 Minimum Grade of C AND Graduate level MBA 521 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Management Information Systems, May not be enrolled as the following Levels: Undergraduate

CMIS 540 - Project Management Fundamentals and Best Practices - 3 (F)

Theory and techniques for managing technology projects within constraints of time, resources and functionality. Topics include project initiation, planning, executing, controlling and closing.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 546 - Advanced Project Management Concepts - 3 (F)

Examination of procurement management and risk management in projects. Topics include strategies for supplier evaluation and contract administration as well as risk identification, analysis, response planning, and control strategies.

Prerequisites: Graduate level CMIS 540 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 548 - Program and Project Portfolio Management - 3

Management of program and project portfolios from a strategic organizational perspective, including selection and prioritization, performance measurement, and optimization.

Prerequisites: Graduate level CMIS 540 Minimum Grade of C OR Graduate level CMIS 549 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CMIS 549 - Agile Project Management - 3 (F)

Basic agile project management framework, processes, tools, and techniques. Includes agile principles, project prioritization and selection, value-based delivery, continuous improvement, and risk management.

Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 557 - Enterprise Resource Planning - 3 (F)

The role of Enterprise Resource Planning (ERP) software in the e-Business environment will be explored using SAP. A risk management approach will be emphasized. Prerequisites: ACCT 524 and admission into any graduate program in business.

Prerequisites: Graduate level ACCT 524 Minimum Grade of C OR ACCT 501 Placement 1.
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 562 - Data Visualization in Business - 3 (S)

This course introduces data visualization as a process embedded in the data analytics lifecycle. Students use leading data visualization software to address business questions.

Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 563 - Oracle SQL for Business Analytics - 3 (aF)

This course is primarily designed for Business students who are interested in Business Analytics (BA) or Business Intelligence (BI) and gaining an intermediate-level of expertise in Structured Query Language (SQL) to manipulate and analyze data from a Relational Database Management System (RDMS), namely Oracle DBMS.

Restrictions: May not be enrolled as one of the following Majors: Computer Management and Info Sys, Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 564 - Database Design - 3 (FS)

Enterprise-wide data modeling. Conceptual database design, entity-relationship and object-oriented models. Physical database design, relational model, and normalization theory.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 566 - Introduction to Business Intelligence and Analytics - 3 (FS)

Introduction to the concepts and applications of business analytics to support data driven decision making in organizations.

Prerequisites: Graduate level MBA 521 Minimum Grade of C OR Graduate level MKTG 546 Minimum Grade of C OR Graduate level ACCT 561 Minimum Grade of C OR Graduate level MKTG 544 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CMIS 567 - Data Analytics Project for Bus - 3 (FS)

Overview of business analytics using industry leading tools, including projects to assess and use data, determine data needs, and generate and process reports.

Prerequisites: CMIS 566 Minimum Grade of C and 2 of the following Electives: CMIS 527 Minimum Grade of C OR CMIS 562 Minimum Grade of C OR CMIS 563 Minimum Grade of C OR CMIS 564 Minimum Grade of C OR CMIS 568 Minimum Grade of C OR CMIS 588 Minimum Grade of C OR MKTG 563 Minimum Grade of C OR ACCT 441 Minimum Grade of C OR ACCT 561 Minimum Grade of C OR ACCT 567 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CMIS 568 - Advanced Database Programming in Oracle - 3

This course is primarily designed for students who are interested in Database Programming, namely in Oracle DBMS, and will introduce a variety of advanced concepts.

Prerequisites: CMIS 564.
Restrictions: Must be enrolled in one of the following Levels: Graduate

CMIS 570 - Software Systems Design - 3 (S)

Techniques and tools for information systems analysis and design. Process-oriented modeling and structured design concepts and techniques; re-engineering business processes; quality-assurance

and reliability.

Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 580 - MS MIS Capstone - 3 (FS)

Integrative exploration of the use of information systems in organizations as a platform for strategic innovation, and with a focus on emerging technologies.

Prerequisites: CMIS 526 Minimum Grade of C AND CMIS 538 Minimum Grade of C AND CMIS 540 Minimum Grade of C AND CMIS 564 Minimum Grade of C AND CMIS 570 Minimum Grade of C AND and MBA 521 Minimum Grade of C And 1 of the following: CMIS 422 Minimum Grade of C OR CMIS 424 Minimum Grade of C OR CMIS 527 Minimum Grade of C OR CMIS 546 Minimum Grade of C OR CMIS 548 Minimum Grade of C OR CMIS 549 Minimum Grade of C OR CMIS 557 Minimum Grade of C OR CMIS 566 Minimum Grade of C OR CMIS 567 Minimum Grade of C OR CMIS 568 Minimum Grade of C OR CMIS 587 Minimum Grade of C OR CMIS 588 Minimum Grade of C. Also, must have a cumulative GPA of 3.00 or higher.
Restrictions: Must be enrolled in one of the following Majors: Computer Management and Info Sys,Management Information Systems, May not be enrolled as the following Levels: Undergraduate

CMIS 587 - Information Systems Internship - 3 (FMS)

Industry internship requiring the application of information systems design, development, and/or technical support skills in a structured work environment. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Dept Chair-Program Director

CMIS 588 - Seminar in Computer Management and Information Systems - 3

Current issues; content varies. May be repeated to a maximum of 12 hours if topics differ.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

CMIS 589 - Final Examination - 1 (FMS)

Final master's examination assesses the ability to think critically, to draw and defend conclusions, and to complete work in a credible manner.

Restrictions: Must be enrolled in one of the following Majors: Computer Management and Info Sys, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CMIS 597 - Independent Study in Computer Management and Information Systems - 1 to 3

Investigation of special topic area. May be repeated to a maximum of 3 hours. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Dept Chair-Program Director

Construction (CNST)

CNST 425 - Heavy Civil Construction - 3 (F)

Methods and procedures for estimating, planning and constructing road and bridge projects.

Prerequisites: CNST 211 Minimum Grade of C OR CNST 111 Minimum Grade of C

CNST 461 - Materials Sampling and Testing - 3 (S)

Procedures and methods for developing and evaluating sampling and testing programs for construction. Individual projects required. Available for Graduate Credit.

Prerequisites: STAT 244
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Construction Management

CNST 463 - Concrete Properties - 3 (F)

Concrete construction techniques are analyzed. Emphasis will be on how fundamental properties are used to make project decisions. Individual projects required.

CNST 520 - Management of Concrete Projects - 3

A study of the management of concrete construction, including a basic understanding of concrete properties, manufacture, quality control, site management and safety.

Prerequisites: Graduate level CNST 501 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CNST 550 - Independent Study in Construction - 3

Independent study on an advanced topic of special interest in construction. May be repeated to a maximum of 6 hours provided no topic is repeated. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Computer Science (CS)

CS 423 - Compiler Construction - 3

Translation of programming languages. Emphasis on techniques used in construction of compilers, including lexical analysis, syntactical analysis, type checking, and code generation.

Prerequisites: CS 330 Minimum Grade of C

CS 430 - Information Storage and Retrieval - 3 (FS)

Database system concepts, models, languages. Database design using entity/relationship, and relational models; querying using SQL.

Restrictions: Must be enrolled in one of the following Majors: Healthcare Informatics

CS 434 - Database Management Systems - 3 (M)

Database management system concepts, models, languages. Entity/relationship, relational and object-oriented data models; relational database design and implementation including SQL; and object databases.

CS 438 - Artificial Intelligence - 3 (FS)

Principles and programming techniques of artificial intelligence. Intelligent agents, heuristic programming, knowledge representation, expert systems, and machine learning.

Prerequisites: CS 340 Minimum Grade of C; or Graduate Standing (GM)

CS 447 - Networks and Data Communications - 3 (FMS)

Concepts of networks and data communications. Networking protocols and architecture; data encoding and transmission; network management; and distributed applications.

Prerequisites: CS 286 Minimum Grade of C and CS 340 Minimum Grade of C and CS 314 Minimum Grade of C; or Graduate Standing (GM)

CS 454 - Theory of Computation - 3 (FS)

Theoretical foundations of computer science, including a theory of automata: pushdown automata, Turing machines; and formal languages.

Prerequisites: CS 330 Minimum Grade of C and MATH 224 Minimum Grade of C; or Graduate Standing (GM)

CS 456 - Design and Analysis of Algorithms - 3 (FS)

Algorithmic design strategies; Runtime analysis; Greedy; Divide-and-Conquer; Dynamic Programming; Network Flow; Algorithmic Intractability; P vs. NP vs. NP-Complete; Reduction Theory

Prerequisites: CS 340 Minimum Grade of C; or Graduate Standing (GM)

CS 463 - Cryptography - 3

Introduction to cryptology, cryptographic primitives, authentication, authorization, and access control, security models, cryptographic protocols, key management and establishment, applications.

Prerequisites: MATH 224 Minimum Grade of C AND CS 447 Minimum Grade of C

CS 476 - Bioinformatics Algorithms - 3 (F)

This course concerns algorithms for bioinformatics problems arising from comparative genomics. Fundamental topics are pairwise sequence alignment, phylogenetic tree construction, and multiple sequence alignment.

Prerequisites: CS 340 Minimum Grade of C; or Graduate Standing (GM)

CS 482 - Computer Graphics - 3

Introduction to2D and 3D graphics, graphics hardware, scan conversion, anti-aliasing, hidden components, transformations, projections, ray tracing, curve and surface modeling, and animation.

Prerequisites: CS 286 Minimum Grade of C AND MATH 152 Minimum Grade of C AND CS 150 Minimum Grade of C

CS 490 - Topics in Computer Science - 3 (FS)

Selected topics in computer science. May be repeated to a maximum of 6 hours for different topics.

CS 495 - Independent Study - 3 (FMS)

Reading and research in specific areas of computer science. May be repeated for a maximum of 6 hours. Requires consent of department chair or program director.

Registration Consent: Instructor and Dept Chair

CS 500 - Graduate Seminar in Computer Science - 1 (FS)

Research topics of faculty; exploration of research facilities and resources; and examination of plagiarism and academic integrity. Requires Graduate standing.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 501 - Intensive Computer Science Fundamentals - 3 (F)

An intensive examination of object oriented design, data structures, algorithm analysis, software engineering, and programming in preparation for graduate study in Computer Science.

Restrictions: Must be enrolled in one of the following Levels: Graduate

CS 514 - Operating Systems - 3 (S)

Concurrent programming; support for distributed systems including transaction processing systems; support for high-volume, high-availability applications; scalable programming; and trends.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 516 - Computer Architecture - 3 (F)

Instruction sets; instruction-level parallelism; memory systems; storage systems; I/O; multiprocessors and multicomputers; and trends.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 525 - Principles of Simulation - 3

Survey of systems modeling and simulation techniques; data generation and testing; construction of simulation models; Petri nets and applications; and model experimentation and optimization.

Prerequisites: CS 240 Minimum Grade of C AND STAT 380 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 530 - Software & Systems Management - 3

Management principles for software engineering and for project and systems development. Includes management of resources and understanding the needs of customers and management.

Prerequisites: CS 340 Minimum Grade of C.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 534 - Advanced Database Management Systems - 3 (aF)

Study of advanced database management system topics such as programmatic SQL, database administration issues, object databases, distributive databases, semi-structured data and XML, and data warehousing.

Prerequisites: CS 434 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 535 - Software Engineering - 3

Principles for software development: object-oriented methodologies; advanced topics such as formal methods; component-based, client-server, and computer-aided software engineering; and web engineering.

Prerequisites: CS 325 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 537 - Introduction to Expert Systems - 3

Design and implementation of expert systems: architecture, knowledge representation, inference methods, uncertainty handling, and knowledge acquisition. Introduction to logic programming and prolog.

Prerequisites: CS 340 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 547 - Network Programming - 3

Design and implementation of application software for computer networks, including case studies of existing network applications with an emphasis on TCP/IP.

Prerequisites: CS 447 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 548 - Network Security - 3

Fundamentals in network security to develop skills for preventing security hazards with focus on practical aspects in network security as well as concepts and theories.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 550 - Object-Oriented Design and Programming - 3

Object-oriented programming and design with emphasis on distributed objects. Uses C++ and JAVA, and covers middleware platforms such as cobra. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CS 560 - Information Discovery in Electronic Healthcare Records - 3 (MS)

Analytical techniques for discovering information in electronic healthcare record systems through data mining, text mining, and visual analytics techniques.

Restrictions: Must be enrolled in one of the following Majors: Healthcare Informatics, May not be enrolled as the following Levels: Undergraduate

CS 582 - Advanced Computer Graphics - 3

Advanced rendering techniques; global illumination and radiosity; volume rendering; shadows; reflection detection; fractals; and particle systems.

Prerequisites: CS 482 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 583 - Topics in Programming Languages - 3

Topics including functional programming, semantic theory of programming language, formal language theory and functional language ML. May be repeated to 6 hours if topics differ.

Prerequisites: CS 330 Minimum Grade of C AND CS 314 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 584 - Topics in Artificial Intelligence - 3 (S)

Selected topics in AI, such as machine learning, model-based reasoning, and intelligent agents. May be repeated up to 6 hours provided no topic is repeated. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 587 - Topics in Computer Networking - 3

Selected topics in computer networking, such as high performance and optical computer networks. May be repeated to a maximum of 6 hours provided no topic is repeated.

Prerequisites: CS 447 Minimum Grade of C AND ECE 477 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 590 - Topics in Computer Science - 3 (FS)

Topics dealing with computer science concepts that are not emphasized in current courses. May be repeated to a maximum of 9 hours if topics differ.

Restrictions: May not be enrolled as the following Levels: Undergraduate

CS 595 - Independent Study - 1 to 6 (FMS)

Students organize a program of study and obtain approval for supervision of the study from a member of the computer science faculty. May be taken for a maximum of 6 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

CS 596 - Master's Project - 3 (FS)

Special software project, under supervision of the student's project committee. Written and oral project reports are required. Satisfies program exit requirements. Requires consent of student's project committee.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

CS 599 - Thesis - 1 to 6 (FMS)

Directed research to satisfy thesis requirement. May be repeated for a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

Electrical & Comp. Engineering (ECE)

ECE 426 - High Frequency Design - 3 (F)

High frequency circuit design with elements of RF engineering. Amplifiers, oscillators, modulators, impedance matching, switching, signal integrity, and tuning.

Prerequisites: ECE 326 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 427 - Knowledge-Based Systems - 3 (M)

Engineering-oriented perspective on artificial intelligence (AI) technology. General AI concepts and specifically knowledge-based intelligent systems and machine learning applied to engineering problem-solving.

Prerequisites: CS 140 Minimum Grade of C OR CS 145 Minimum Grade of C.

ECE 428 - Analog Filter Design - 3 (F)

Active and passive filter synthesis. Standard low-pass approximations: Butterworth, Chebyshev, Inverse Chebyshev, Cauer, Bessel and frequency transformations. Active and passive circuit implementations.

Prerequisites: ECE 351 Minimum Grade of C AND ECE 326 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 429 - Bioinstrumentation - 3

Design and use of biosignal sensors, bioamplifiers, and filters for measuring physiological data; emphasizes origins and characteristics of nerve and heart signals; includes cell analysis and dialysis machine design.

Prerequisites: ECE 327 Minimum Grade of C or

admission to graduate Engineering Program (GM).
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 436 - Digital Signal Processing - 3 (FS)

Discrete-time signals and systems; sampling; z-transforms; discrete Fourier transform; difference equations; design and implementation of digital filters; and DSP development systems.

Prerequisites: ECE 351 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 437 - Medical Imaging Systems - 3

Basic signals and systems, imaging principles, and image quality measures for X-ray radiography, X-ray computed tomography, ultrasound, and magnetic resonance imaging.

Prerequisites: ECE 351 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 438 - Image Analysis and Computer Vision - 3 (F)

Image formation, geometrical and topological properties of binary images; image filtering; boundary detection; image segmentation; and pattern recognition. Two hours lecture and one laboratory session per week.

Prerequisites: ECE 351, or ME 356, or consent of instructor
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 439 - Digital Image Processing - 3 (S)

Fundamentals of human perception; sampling and quantization; image transforms; enhancement; and restoration and coding. Two hours lecture and one laboratory session per week.

Prerequisites: ECE 351 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 444 - Power Electronics - 3 (S)

Basics of DC/DC and DC/AC conversion, inductors, transformers, switching characteristics of semiconductor devices, elements of electromagnetic compatibility.

Prerequisites: ECE 326 Minimum Grade of C or admission to graduate Engineering Program.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 445 - Power Distribution System - 3 (S)

Distribution system planning; load characteristics; application of distribution transformers; design of distribution system; voltage-drop and power-loss calculations; voltage regulation; and protection and reliability.

Prerequisites: ECE 341 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 446 - Power System Analysis - 3 (M)

Synchronous machines; power transformers; transmission lines; system modeling; load-flow study; economic operation of power systems; symmetrical components; symmetrical and unsymmetrical faults; and power system stability.

Prerequisites: ECE 341 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 447 - Radar Systems - 3 (S)

Introduction to radar systems, including antenna fundamentals, radar equation, radar signals and systems, CW radar, FM-CW Radar, pulse radar, and tracking radar.

Prerequisites: ECE 340 Minimum Grade of C AND ECE 351 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 455 - System Modeling & Optimization - 3

Mathematical modeling of engineering systems; dynamic response of electrical and mechanical systems; and optimization models in electrical engineering.

Prerequisites: ECE 351 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 465 - Control Systems Design - 3 (F)

Root-locus analysis; frequency-response analysis; design and compensation technique; describing-function analysis of nonlinear control systems; and analysis and design by state-space methods.

Prerequisites: ECE 365 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 466 - Digital Control - 3

Topics include finite difference equations; Z-transforms and state variable representation; analysis and synthesis of linear sampled-data control systems using classical and modern control theory. Same as ME 466.

Prerequisites: ME 450 Minimum Grade of C OR ECE 365 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 467 - Robotics-Dynamics and Control - 3 (F)

(Same as ME 454 and MRE 454) Robotics; robot kinematics and inverse kinematics; trajectory planning; differential motion and virtual work principle; and dynamics and control.

Restrictions: Must be enrolled in one of the following Colleges: School of Engineering
Registration Consent: Instructor

ECE 476 - Electronic Circuits II - 3 (S)

Small signal analysis, transistor amplifier design, frequency response, feedback system analysis, output stage design, signal generation and waveform shaping circuits. Three hour lecture and one hour laboratory session per week.

Prerequisites: ECE 326 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 477 - Network Engineering - 3 (FS)

Principles and practices of network engineering with particular emphasis on the physical, data-link, and network layers as applied to telecommunication and computing systems.

Prerequisites: ECE 282 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 482 - Microprocessor System - 0 to 3 (F)

Design of microprocessor systems using VLSI building blocks. Several microprocessors and peripheral ICS studied laboratory experiments with microprocessor systems using logic analyzers. Three hours lecture and one laboratory session per week.

Prerequisites: ECE 282 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 483 - Advanced Digital Systems Engineering - 0 to 3 (MS)

Design of digital systems using a hardware description language, and logic synthesis tools. To master advanced logic design concepts, logic optimization, including the design of synchronous combinational and sequential circuits using state of the art CAD tools.

Prerequisites: ECE 282 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 484 - Digital VLSI Design - 3 (F)

Discussion of CMOS circuits, MOS transistor theory, CMOS processing technology, circuit characterization, and CMOS Circuit and Logic Design.

Prerequisites: ECE 326 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

ECE 491 - Independent Study - 1 to 4 (FMS)

Individual investigation of a topic in electrical engineering to be agreed upon with the instructor. May be repeated to a maximum of 6 hours provided no topic is repeated. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Computer Engineering,Computer Engineering,Electrical Engineering
Registration Consent: Instructor

ECE 492 - Topics in Electrical and Computer Engineering - 2 to 6 (FMS)

Selected topics of special interest. Course schedule will include name of topic. May be repeated to a maximum of 6 hours so long as no topic is repeated. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Colleges: School of Engineering
Registration Consent: Instructor

ECE 510 - Engineering Research Methods - 3 (FS)

Engineering research methods; experimental design; statistical analysis of experimental results, presentation of results; and research tools and technical writing.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ECE 532 - Applications of Digital Signal Processing - 3

Parametric signal modeling with direct and indirect methods; classical and modern spectral estimation; multi-rate processing of discrete signals; adaptive signal processing; and VLSI signal processor applications.

Prerequisites: ECE 436 Minimum Grade of C AND ECE 352 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 535 - Advanced Image Compression Methods and Algorithms - 3

Advanced algorithms and methods in image compression; transform coding, wavelet/vector quantization, JPEG, JPEG2000, differential predictive coding, fractal coding, applications. Group projects.

Prerequisites: ECE 439 Minimum Grade of C OR Graduate level ECE 439 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ECE 538 - Image Analysis and Computer Vision II - 3 (S)

Applications of pattern recognition, image analysis, and multi-spectral computer vision. Group projects.

Prerequisites: ECE 438 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 539 - Digital Image Processing II - 3

Topics of current interest in image processing. Applications of image analysis, image restoration, image enhancement. Group projects.

Prerequisites: ECE 439 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 541 - Advanced Electric Machines and Drives - 3 (S)

Advanced analysis of modern electrical machines and adjustable speed drives.

Prerequisites: ECE 341 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ECE 545 - Generator Control and Protection - 3 (F)

Synchronous generator basics including construction and theory of operation. Types of excitation systems and control architectures. Supplemental controls. Power system stability and introduction to generator protection.

Prerequisites: ECE 341 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 552 - Advanced Stochastic Processes - 3 (S)

Intensive review of random variable concepts, emphasizing moments, characteristic functions, and large number and convergence concepts. Spectral analysis, Kalman filtering and renewal processes.

Prerequisites: ECE 352 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 562 - Modern Control - 3 (F)

Analysis and design of control systems; state-variable description; controllability, observability, non-linearities and perturbation theory; and stability, state feedback design, robust control.

Prerequisites: ECE 465 OR ME 450.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 563 - Optimal Control - 3

Description of system and evaluation of its performance and dynamic programming; calculus of variations and Pontryagin's minimum principle; and iterative numerical techniques. Same as ME 563, MATH 563

Prerequisites: ME 450 Minimum Grade of C OR ECE 365 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 574 - Digital Communications - 3

Fundamental blocks in digital communication systems, and channel capacity; and source and channel coding. Principles of digital data transmission, performance analysis of digital communication systems, spread spectrum communication, information theory.

Prerequisites: ECE 375 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 577 - Advanced Network Engineering - 3 (M)

The principles and practice of network engineering are applied to real systems in a wide variety of environments with emphasis on network technology integration issues.

Prerequisites: ECE 477 Minimum Grade of C OR CS 447 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 581 - High Performance Architectures I - 3 (F)

Advanced computer architectures, memory-system design, and parallel processing mechanisms. Design issues and various example machines. Evaluation of performance increases dependency on algorithms.

Prerequisites: ECE 483 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 582 - High Performance Architectures II - 3

Parallel processing architectures with emphasis on identifying common underlying structure of applications and architectures.

Prerequisites: ECE 483 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ECE 584 - Analog CMOS Integrated Circuit Design - 3 (S)

Operating principles of CMOS analog integrated circuits, physics of MOS devices, linearized models of MOSFETS, and circuit design techniques for realizing CMOS operational amplifiers. Requires instructor consent.

Prerequisites: ECE 327 Minimum Grade of C AND ECE 484 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ECE 585 - Mixed-Signal Design & Modeling - 3 (F)

Circuit techniques and design issues for mixed-signal integrated circuits; switched-capacitor circuits; digital-to-analog and analog-to-digital converters; and an introduction to modeling using VerilogA.

Prerequisites: ECE 327 AND ECE 483 AND ECE 484.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ECE 591 - Independent Study - 1 to 6 (FMS)

Individual investigation of a topic in electrical

engineering to be agreed upon with instructor. May be repeated for a maximum of 6 hours provided that no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ECE 592 - Topics in Electrical Engineering - 3

Topic of special interest; course schedule will define the topic. May be repeated to a maximum of 12 hours provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ECE 595 - Master's Project - 3 (FS)

Design and development of a graduate-level final project in electrical engineering. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ECE 599 - Thesis - 1 to 6 (FS)

Independent research in electrical engineering. May be repeated to a maximum of 6 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Economics (ECON)

ECON 411 - The Business of Healthcare - 3

Understanding supply and demand of healthcare and insurance. Emphasis on healthcare delivery and choice, navigating health insurance markets, impact of healthcare regulations, and international comparisons. Requires completion of stated prerequisite or consent of instructor.

Attributes: EH, SS
Prerequisites: ECON 111 AND ECON 112.

ECON 415 - Econometrics - 3 (F)

Empirical research methodology and ethics. Hypothesis testing and predicting with OLS regression. Estimation with violations of classical assumptions. Multicollinearity problems; dummy variables; and model specification. Will not count toward MA or MS in Economics and Finance.

Attributes: SS
Prerequisites: ECON 315 Minimum Grade of C.

ECON 417 - Business Forecasting - 3 (S)

Survey of methods to forecast economic and financial conditions and markets for individual products, sectors, or regions. Time series, indicator, judgmental, econometric and Box-Jenkins techniques. Satisfies research requirement for business programs. Will not count toward MA or MS in Economics and Finance.

Attributes: SS
Prerequisites: ECON 315 Minimum Grade of C.

ECON 428 - Economic Consulting - 3

Students will develop self-marketing skills to value their own abilities, assess costs and benefits of self-employment, and how to prepare economic reports for business clients.

Attributes: SS
Prerequisites: ECON 111 Minimum Grade of C AND ECON 112 Minimum Grade of C AND MS 251 Minimum Grade of C.

ECON 439 - Economics of Sports - 3 (M)

Economic analysis applied to issues concerning major professional team sports such as free agency, salary caps, competitive balance, stadium contracts, and franchise relocation. Will not count toward MA or MS in Economics and Finance.

Attributes: SS
Prerequisites: ECON 111 Minimum Grade of C AND ECON 112 Minimum Grade of C AND MS 250 Minimum Grade of C AND MS 251 Minimum Grade of C.

ECON 461 - International Economics - 3 (S)

Reasons for International Trade; comparative trade policies in advanced and developing countries;

understanding the macroeconomic forces behind the changes in the exchange rates.

Attributes: BSS, EGC, SAB
Prerequisites: ECON 111 Minimum Grade of C AND ECON 112 Minimum Grade of C.

ECON 490 - Independent Study in Economics - 1 to 6 (FS)

Investigation of topic areas. Individual or small group readings under supervision of faculty member. Requires consent of department chair or program director. Will not count toward MA or MS in Economics and Finance.

Attributes: SS
Registration Consent: Dept Chair-Program Director

ECON 501 - Advanced Microeconomic Theory - 3

Theories of consumer behavior; theories of the firm; welfare economics; and public choice.

Prerequisites: ECON 301.
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

ECON 528 - Managerial Economics - 3 (FS)

Economic analysis of managerial decisions, business strategy, government policy, and regulation affecting business organizations.

Prerequisites: Graduate level MBA 521 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

ECON 532 - Health Economics and Policy - 3 (F)

Adapts economic skill and tools to the health care sector. Material includes behavior; costs; insurance; utilization; and economic assessment of public policy issues.

Prerequisites: Graduate level ECON 528 Minimum Grade of B
Restrictions: Must be enrolled in one of the following Levels: Graduate

ECON 581 - Seminar on Selected Economic Topics - 3 to 6

Directed study and analysis of theoretical and policy problems current to frontiers of economic analysis. May be repeated once provided no topic is repeated. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Instructor

Education Administration (EDAD)

EDAD 500 - Introduction to School Leadership - 3 (FMS)

Preparation of professional portfolio and participation in seminars on leadership and school improvement.Prerequisite for program admission.

Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

EDAD 510 - School Finance - 3

Structure and financing of public education. Federal, state, and local fiscal policies and principles. Fiscal analysis and management. Lab included.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

EDAD 520 - School Law - 3 (FMS)

Analysis of state and federal statutes and case law, emphasizing needs of English language learners and students with disabilities.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 525A - Instructional Leadership and Supervision:Theory and Research - 3 (FS)

Research and theory related to instructional leadership. Emphasis on hiring, evaluation, and professional development of teachers. Prerequisites: EDAD 500 and program admission.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 525B - Instructional Leadership and Supervision: Field Experience - 3 (FMS)

This is a field-based internship.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed) AND Graduate level EDAD 525A Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 530A - Data Driven School Improvement and Accountability:Theory and Research - 3 (MS)

Principles and procedures of educational program evaluation. Data-driven school improvement processes.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 530B - Data Driven School Improvement and Accountability:Field Experience - 3 (FMS)

This is a field-based internship. Prerequisite: EDAD 500, EDAD 530A and EPFR 501 with minimum grade of C (concurrent enrollment allowed in EDAD 530A).

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed) AND Graduate level EDAD 530A Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 535A - Curriculum Leadership: Theory and Research - 3 (FM)

Curriculum leadership for the school leaders to enhance learning of all students. Prerequisites: EDAD 500 and program admission.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 535B - Curriculum Leadership: Field Experience - 3 (FMS)

This is a field-based internship.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed) AND Graduate level EDAD 535A Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 545A - The Principalship:Theory and Research - 3 (MS)

Theory and research related to leadership role of building principal.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 545B - The Principalship:Field Experience - 3 (FMS)

This is a field-based internship.

Prerequisites: Graduate level EDAD 500 Minimum Grade of C (concurrency allowed) AND Graduate level EDAD 545A Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate

EDAD 550 - Teacher Leader Practicum - 3 (FS)

Practical application of teacher leader theory and practice supervised by an approved administrator or teacher and program faculty member. Course must be taken last semester of program.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDAD 555 - Superintendency, District Administration, and Governance - 3 (S)

Role, responsibilities, and relationships of district superintendent and board of education in the organization, administration, policy development, and governance of a school district.

Restrictions: Must be enrolled in one of the following Levels: Graduate

EDAD 563 - School and Community Relations - 3 (S)

Principle aspects in the development and maintenance of positive relationships and partnerships with staff, parents, and community at large. Social media and crisis communication strategies.

Restrictions: Must be enrolled in one of the following Levels: Graduate

EDAD 565 - Human Resource Administration - 3 (M)

Theories and practices related to public school personnel planning, selection, evaluation, and dismissal. Principles of human motivation and development.

Restrictions: Must be enrolled in one of the following Levels: Graduate

EDAD 567 - Collective Bargaining in Education - 3

Labor relations in education; educational labor relations act and Illinois labor relations board; common law and statutory law governing public school labor relations; and negotiating with employee unions. Requires advanced standing

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDAD 570 - Leadership Theory and Practice - 3 (F)

Nature of leadership and organizational change. Creating and implementing a collective vision through strategic planning and situational decision-making.

Restrictions: Must be enrolled in one of the following Levels: Graduate

EDAD 580 - District Program Development - 3 (M)

District-level strategies for program and curriculum development, implementation, and evaluation focused on instructional impovement and student achievement.

Restrictions: Must be enrolled in one of the following Levels: Graduate

EDAD 585 - School District Business Administration - 3 (F)

Theory and practice related to principles of budgeting, accounting, purchasing, leasing and risk management. Examination of transportation, food service, and facility planning and management.

Prerequisites: Graduate level EDAD 510 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

EDAD 587 - School Budgeting & Accounting - 3

Principles and procedures of school district budgeting and accounting. Lab included. Prerequisite: 585

Prerequisites: Graduate level EDAD 585 Minimum

Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

EDAD 589 - School Fiscal Analysis & Forecast - 3

Conducting analyses of school district receipts and expenditures. Production and use of receipt and expenditure forecasts. Lab included. Prerequisite: 587

Prerequisites: Graduate level EDAD 587 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

EDAD 591 - Internship Practicum/ Superintendency - 2 to 6 (FMS)

Conducted in clinical setting under direction and supervision of school administrator and department faculty member. Comprehensive field experience designed to relate theory to practice for those preparing for district-level administration. Emphasis on district-level leadership, management, and school improvement. Requires admission to a program leading to superintendent's certification and consent of advisor.

Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Superintendent, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

EDAD 595 - Field Study - 3 to 6 (FMS)

Required of candidates for specialist's degree. Report reflects special projects, research, or problems investigated during field experience. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 597A - Individual Research: Curriculum - 1 to 3

Individual Research: Curriculum. Writing of research assignment. May be repeated for a maximum of 6 hours. Requires consent of advisor.

Restrictions: Must be enrolled in one of the following Majors: Educational Administration, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 597B - Individual Research: Supervision - 1 to 3

Individual Research: Supervision. Writing of research assignment. May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 597C - Individual Research: Buildings - 1 to 3

Individual Research: Buildings. Writing of research assignment. May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 597D - Individual Research: Finance - 1 to 3

Individual Research: Finance. Writing of research assignment. May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

EDAD 597E - Individual Research: School Law - 1 to 3

Individual Research: School Law. Writing of research assignment. May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 597F - Individual Research:

Administration - 1 to 3

Individual Research: Administration. Writing of research assignment. May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 597G - Individual Research: Elementary Education - 1 to 3

Individual Research: Elementary Education. Writing of research assignment. May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 597H - Individual Research: School Business Management - 1 to 3

Individual Research: School Business Management. Writing of research assignment. May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 597I - Individual Research: Managerial Accounting - 1 to 3

Individual Research: Managerial Accounting. Writing of research assignment. May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 598 - Selected Topics in Education Administration - 3

Current trends and issues related to educational research and practice having immediate implications for practitioners. Majors may count no more than 6 hours toward their degree. No topic may be repeated. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EDAD 600 - Professional Seminar in Doctoral Study - 3 (S)

An in depth analysis of issues facing school superintendents.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

EDAD 620 - Advanced School Law - 3 (F)

Legal aspects of public education in P-12 school systems, focusing upon district level issues.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

EDAD 640 - Foundations of Educational Theory - 3

Introduction to the role of theory in research and education, and examination of key theories emerging from and shaping the field of education.

Restrictions: Must be enrolled in one of the following Majors: Educational Administration, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

EDAD 660 - Politics & Policy-Making in Ed - 3 (FS)

Political forces that shape public education in the United States.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

EDAD 690 - Research Topics in Educational Administration - 3 (M)

Students develop a proposal for a doctoral research project, including a literature review and detailed description of research methodology. Successful completion of Ed.D. qualifying exam.

Restrictions: Must be enrolled in one of the following Levels: Graduate

EDAD 698 - Doctoral Research - 3 (FS)

Doctoral research project on educational issue; includes contextual analysis, data analysis, program recommendations, implementation, conclusions, appendix, references; must be repeated for a maximum of 6 hours.

Prerequisites: Graduate level EDAD 690 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

Education Foundations (EDFD)

EDFD 563 - Selected Topics in Education Foundations - 0

Contemporary educational issues or problems from perspectives grounded in social theory or political and social philosophy. May be repeated to a maximum of 6 hours providing no topic is repeated. Requires Graduate standing

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDFD 575A - Individual Research: Philosophy of Education - 0

Research under supervision of graduate faculty member in (A) philosophy of education; (B) history of education; (C) intercultural-comparative education; (D) sociology of education; (E) education and politics. Maximum credit accumulation for any combination of 575 A-E is 6 hours. Topics studied may not be repeated. Prerequisites: Consent of instructor and advisor

Restrictions: May not be enrolled as the following Levels: Undergraduate

Education (EDUC)

EDUC 600A - Seminar in Instructional Process: Learning & Development - 3

Seminar in Instructional Process: Learning & Development. Core seminar required of all Ed.D. students. Must be taken in sequence with 600B and 600C. Requires admission to Ed.D. program

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDUC 600B - Seminar in Instructional Process: Curriculum & Instruction - 3

Seminar in Instructional Process: Curriculum & Instruction. Core seminar required of all Ed.D. students. Must be taken in sequence with 600A & 600C. Requires admission to Ed.D. program

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDUC 600C - Seminar in Instructional Process: Organization & Leadership - 3

Seminar in Instructional Process: Organization & Leadership. Core seminar required of all Ed.D. students. Must be taken in sequence with 600A and 600B. Requires admission to Ed.D. program

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDUC 675 - Independent Study - 1 to 6

Conducted in accordance with specific agreement with doctoral advisory committee. May be repeated to a maximum of 6 hours. Requires admission to Ed.D. program

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDUC 680A - Advanced Seminar: Teaching Behavior - 1 to 3

Advanced Seminar: Teaching behaviors. Varied content. Topics pertain to principal areas of study within instructional process areas of emphasis: May be repeated to a maximum of 6 hours so long as topic is not repeated. Requires admission to Ed.D. program

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDUC 680B - Advanced Seminar: Learning and Development - 1 to 3

Advanced Seminar: Learning and Development. Varied content. Topics pertain to principal areas of study within instructional process areas of emphasis.

May be repeated to a maximum of 6 hours so long as topic is not repeated. Requires admission to Ed.D. program

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDUC 680C - Advanced Seminar: Curriculum - 1 to 3

Advanced Seminar: Curriculum. Varied content. Topics pertain to principal areas of study within instructional process areas of emphasis. May be repeated to a maximum of 6 hours so long as topic is not repeated. Requires admission to Ed.D. program.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EDUC 697 - Seminar - 1

Taken during residence. Taken for one hour at a time for three semesters. Structured seminars held during the day. Requires admission to candidacy, residence request approved.

Restrictions: May not be enrolled as the following Levels: Undergraduate

English Language & Literature (ENG)

ENG 400 - Principles of Linguistics - 3 (FS)

Principles and techniques of linguistic analysis illustrated through survey of major structural components of language. Recommended for anthropology students, linguistics students, and those preparing to teach English.

Attributes: BICS, EGC, EUSC, HUM

ENG 403 - History of the English Language - 3 (S)

Historical survey of major phonological and grammatical changes in English language from its Indo-European antecedents to the present.

Attributes: BICS, EGC, HUM

ENG 404 - Chaucer: Canterbury Tales - 3

The Canterbury Tales read in Middle English.

Attributes: BHUM, EGC, LIT

Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 405 - Pragmatics - 3

Study of principles controlling how implicit levels of meaning are expressed in language and how context influences the interpretation of meaning.

Attributes: BICS, HUM

ENG 408 - Phonological Analysis - 3

Principles of linguistic analysis and interpretation as applied to sound systems of language.

Attributes: BICS, EGC, EUSC, HUM

ENG 409 - Syntactic Analysis - 3

Principles of syntactic analysis and interpretation as applied to clause and sentence level structures.

Attributes: BICS, EGC, EUSC, HUM

ENG 410 - Rhetoric, Writing, and Citizenship - 3 (S)

Examination of rhetoric’s role in US citizenship both past and present. Students will write analytical and persuasive documents. Service learning project required.

Attributes: BICS, EUSC
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 412 - Digital Literacies - 3

Students will investigate digital literacy - electronic technologies, discursive practices, and cyberspaces. Analysis and assessment of digital artifacts, cultures, and texts.

Attributes: BICS, EGC, HUM, IS
Prerequisites: Complete all Foundations Requirements.

ENG 416 - Language and Society - 3 (S)

Study of relationships between language, society, and culture, and their implications for education and intercultural communication. Topics include language variation, socialization, and ethnography of communication.

Attributes: BICS, EGC, EREG, ERGU, EUSC, HUM, IS
Prerequisites: Complete all Foundations Requirements.

ENG 420 - Topics in Film Studies - 3

Variable topics course focusing on the history and aesthetic development of one or two film genres, styles or historical periods.

Attributes: BHUM
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 444 - Creative Nonfiction - 3 (FS)

Writing practice in and examination of a wide variety of modes and subjects comprising the genre of creative nonfiction, i.e. memoir, personal essay, lyric essay. Workshop format.

Attributes: FPA
Prerequisites: ENG 290.

ENG 445 - Young Adult Literature - 3 (FMS)

Historical survey of and contemporary perspectives on young adult literature. Students will analyze interactions between literary texts and the cultures in which they are read.

Attributes: HUM
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 446 - Studies in African American Literature - 3 (F)

This course will examine the fiction, poetry, short stories, and essays of African American writers within the context of scholarship and criticism dedicated to the study of black Diasporic cultures. May be repeated up to 6 hours.

Attributes: BHUM, ERGU, EUSC, LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 457 - Topics in Postcolonial Literature and Criticism - 3

Examination of postcolonial texts-novels, plays, poem, memoirs, speeches, and critical essays-with focus on scholarship and theory in postcolonial studies. May be repeated to a maximum of 6 hours provided no topic is repeated.

Attributes: BHUM, EGC, EREG, EUSC, LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 463 - Topics in Literary Periods - 3 (S)

Reading and analysis of works drawn from one or more specific literary periods; authors and periods vary. May be repeated to a maximum of 9 hours as long as no topic is repeated. Junior standing or consent of instructor.

Attributes: BHUM, LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

ENG 464 - Topics in Forms and Genres - 3 (S)

Reading and analysis of works drawn from one or more specific literary forms and genres; authors, forms, and genres vary. May be repeated to a maximum of 9 hours as long as no topic is repeated. Junior standing or consent of instructor.

Attributes: BHUM
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 465 - Special Topics - 3 (aF)

Special topics in literature, linguistics, rhetoric and composition, and creative writing. May be repeated once for a maximum of six hours provided no topic is repeated. Prerequisite: ENG 102 with a C or better; junior standing or consent of instructor.

Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 468 - Second Language Acquisition - 3 (S)

Examination of issues and theories applicable to understanding process of second language development.

Attributes: BICS

ENG 470 - Meth & Matls: P-12 ESL & Bilin - 3

Examination of techniques and materials for teaching dual-language and English Learners in P-12 settings.

Attributes: BICS, EUSC

ENG 471 - Shakespeare - 3 (S)

The in-depth study of the works of Renaissance author William Shakespeare. Topic varies; may be repeated to a maximum of 6 hours so long as topic is not repeated.

Attributes: BHUM, EGC, LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

ENG 472 - Assessment and Testing in English as a Second Language - 3

Examination of issues and methods for assessing oral and written proficiency in English as a Second Language.

Attributes: BICS

ENG 473 - Milton - 3

Paradise Lost and other works such as Samson Agonistes, Paradise Regained, Lycidas, Comus, and selected prose.

Attributes: BHUM, EGC, LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 474 - Bilingualism and Bilingual Education - 3

An introduction to cognitive, linguistic, and social perspectives on bilingualism; and the history and politics of bilingual education in the U.S.

Attributes: BICS, EUSC

ENG 475 - Methods of Teaching Secondary English Language Arts - 3 (FS)

Approaches to teaching English Language Arts at the secondary level, including lesson planning for reading, writing, and language instruction; must be seeking secondary ELA licensure.

Attributes: LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Concentrations: Secondary English Lang Arts

ENG 476 - Practicum in English as a Second Language - 3

This course is designed for students who need to gain supervised experience teaching English as a second language for the purposes of the state English as a second language enrollment.

Prerequisites: ENG 470 OR ENG 542.

ENG 477 - Morrison - 3 (S)

Reading and analysis of the works of major contemporary American author Toni Morrison.

Attributes: BHUM, ERGU, EUSC, LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

ENG 478 - Studies in Women, Language and Literature - 3 (FS)

Relationships among society, gender, language, and literature; ways women are affected by and depicted in language and literature; literature written by women; and feminist criticism. Topic varies; may be repeated to a maximum of 6 hours so long as topic is not repeated. Same as WMST 478.

Attributes: BHUM, EUSC, IS, LIT
Prerequisites: Complete all Foundations Requirements.

ENG 479 - Major Authors: Shared Traditions - 3 (FM)

Reading and analysis of the works of two to four major authors who share an historical period; authors and topic vary. May be repeated up to a maximum of 6 hours as long as authors and topic are not repeated.

Attributes: BHUM, LIT

Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

ENG 480 - Major Authors: Crossing Boundaries - 3

Reading and analysis of the works of two to four major authors from different historical periods; authors and topic vary. May be repeated to a maximum of 6 hours as long as no topic is repeated. Junior standing or consent of instructor.

Attributes: BHUM, EUSC, LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

ENG 482 - Technology & Literature - 3

Analysis of digital theory, electronic environments, hypertextual editing, and born-digital literatures.

Attributes: BICS, LIT
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 485 - Writing for Teachers of English - 3 (FS)

Composition processes for teachers of English in secondary education; the practice and pedagogy of academic writing.

Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Master of Arts in Teaching,English,Teaching Eng as 2nd Language,Teaching of Writing,Tch Eng 2nd Lang,Secondary English Lang Arts

ENG 486 - Teaching Creative Writing - 3

Seminar on the teaching of creative writing, with an emphasis on poetry and/or fiction.

ENG 488 - Rhetoric, Politics, & the Law - 3 (F)

Rhetorical figures, political texts and speeches, law and policies, from classical origins to today. Analysis of persuasion, reason, style, fallacy, rhetorical situation and context.

Attributes: BHUM, EGC
Prerequisites: ENG 102 with a C or better or graduate standing (GM).

ENG 490 - Advanced Composition - 3 (FS)

Writing sophisticated expository prose. Review of grammatical matters as needed. Emphasis on clarity, organization, effectiveness, and flexibility. May be repeated once for a max of 6 hours with permission.

Attributes: BHUM
Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 491 - Technical and Business Writing - 3 (FMS)

Technical communication, professional correspondence, reports, proposals, descriptions, and evaluations. Word processing and graphics software. For students in English, business, engineering, nursing, the sciences, and the social sciences.

Attributes: BICS
Prerequisites: ENG 102 or ENG 102N with a C or better or graduate standing (GM)..

ENG 492 - Advanced Fiction Writing - 3 (FS)

Advanced seminar in short story writing. Includes readings in fiction and a study of the psychology of creativity, fiction markets, and experimental fiction. Workshop format.

Attributes: FPA
Prerequisites: ENG 392.

ENG 493 - Advanced Poetry Writing - 3 (S)

Advanced workshop in writing poetry. Examination of poetic expression.

Attributes: FPA
Prerequisites: ENG 393.

ENG 494 - Literary Editing - 3 (F)

Principles of literary editing, primarily of fiction and

poetry.

Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 496 - Scholarly and Critical Editing - 3

Editorial preparation of copy for scholarly and critical journals in English language and literature.

Prerequisites: ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C.

ENG 499 - Readings in English - 1 to 3 (FS)

Independent study in specific area of interest. Extensive reading. For English students only; may be repeated to a maximum of 6 hours. Requires consent of department chair and instructor.

Registration Consent: Instructor and Advisor

ENG 501 - Modern Literary Studies - 3 (F)

Integrates study of modern literary theory and scholarly editing with instruction in professional research writing and use of electronic data bases. Continues with ENG 502.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 505 - Topics in Forms and Genres - 3 (aS)

The course will address a range of topics relevant to literary forms and genres. May cross periods and geographies.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 506 - Topics in Literary Periods - 3

This course will focus on a particular literary period and/or relationships between literary periods.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 508 - Major Author Studies - 3

This course will involve the comprehensive study of one author or a select group of authors.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 521 - Topics in Lit & Culture - 3

This course will address relationships between literature and culture that are not period or genre specific.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 526 - Studies in African American Texts - 3 (S)

This course examines African American texts, including fiction, poetry, plays, essays, sermons, slave narratives, memoirs, and speeches, with primary focus on pertinent theory, scholarship, and publications in black studies. May be repeated to a maximum of 9 hours, provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 530 - Writer in the World - 3 (F)

Introduce students to theories, research methods, and practicum design in service learning while pursuing community-based creative writing opportunities.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

ENG 531 - Writer in the World Practicum - 3 (S)

Participation in a practicum related to teaching, arts programming, literacy, writing, and/or editing. Supervised by selected faculty member and cooperating site.

Prerequisites: Graduate level ENG 530 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ENG 532 - Topics in Creative Writing - 3

This course will focus on special topics in creative writing. May be repeated to a maximum of 12 hours, provided no topic is repeated.

Restrictions: Must be enrolled in one of the

following Concentrations: Creative Writing, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ENG 533 - Advanced Literary Editing - 3

Study of current trends and issues in literary publishing. Hands-on experience in the editing and production of Sou'wester, SIUE's literary journal.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ENG 540 - Seminar in Second Language Acquisition - 3

Examination of advanced topics in the acquisition of English as a second language, including universal grammar, lexical development, and conversational analysis. Prerequisite: ENG 400 with minimum grade of D or concurrent enrollment.

Prerequisites: ENG 400 (concurrency allowed).
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 541 - Graduate Research Methods - 3

Students will learn to use strategies, techniques, protocols, and tools to successfully carry out research projects that involve gathering, analyzing, and presenting data.

Prerequisites: ENG 400 (concurrency allowed).
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 542 - Methods For Teaching English as a Second Language - 3 (F)

Analysis of models for teaching English as a second language in various educational settings. Includes classroom observation and evaluation.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ENG 543 - Grammar Pedagogy - 3

Study of problem areas in the structure, acquisition, and teaching of English grammar to non-native speakers.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ENG 544 - Reading and Writing Pedagogy in Teaching English as a Second Language - 3

Examination of reading and writing processes in second language acquisition and approaches to teaching them to non-native speakers.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 545 - TESL Practicum - 1 to 3 (FS)

Guided observation and tutoring in a variety of English as a Second Language (ESL) classrooms, supported by readings and reflection papers.

Restrictions: Must be enrolled in one of the following Concentrations: Teaching Eng as 2nd Language, Must be enrolled in one of the following Levels: Graduate; Professional

ENG 552 - Academic Writing and Research Methods in Composition Studies - 3

Research methods in composition studies; practice using electronic data bases; instruction in professional research writing. Required of students in teaching of writing MA specialization.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 554 - Composition Pedagogy - 3 (F)

Introduction to teaching writing. Writing-as-process approach: invention methods, revision techniques, collaborative learning, and workshops. Design and evaluation of assignments. Planning writing courses. Teaching Assistants only.

Restrictions: Must be enrolled in one of the following Majors: English, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

ENG 556 - Theory of Composition and Rhetoric - 3

Study of theories and historical movements underlying and constituting modern composition pedagogy and rhetorical studies.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 558 - Writing: Teaching and Practice - 3

Course focuses on teaching techniques for first-year college writing courses. Process pedagogy; invention; pedagogical theory/history; collaborative learning; relationships between reading, writing, and critical thinking.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 570 - Teaching African American Oral and Written Literature - 3

Teaching of African American oral and written literatures: emphasis on methodology, comparative presentation styles, and textual analysis; from ancient Africa to contemporary America.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 574 - Basic Writing Theory and Pedagogy - 3

Focus on theories and practical teaching methods for working in basic and developmental writing courses at the college level.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 578 - Gender, Language, and Pedagogy - 3

Study of recent research into ways gender affects language: speaking, reading, and writing.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 581 - Topics in Teaching Writing - 3 (M)

Workshop or seminar in teaching composition, language, literature, creative writing, and related subjects in education. May be repeated to a maximum of 9 hours provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 583 - History of Rhetoric I - The Classical Period to the Renaissance - 3

Major rhetoric figures, texts, and definitions, beginning with Classical origins and continuing into the Renaissance period. Designed for students interested in composition, literature, and criticism.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ENG 584 - History of Rhetoric II - The Enlightenment to Today - 3

Major rhetoric figure, texts, and definitions, beginning with the Enlightenment and continuing into the contemporary period. Designed for students interested in composition, literature, and criticism.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ENG 587 - Politics of Composition Pedagogy - 3

Pedagogical politics of the writing classroom; teacher-student power relations; relations between educational institutions and social order; and development of alternative perspectives in pedagogical politics.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 592 - Fiction Writing - 3 (FS)

Emphasis on fiction written by students. May be repeated to a maximum of 12 hours provided no topic is repeated. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ENG 594 - Creative Non-fiction Writing - 3

Emphasis on creative non-fiction written by students. May be repeated to a maximum of 12 hours provided no topic is repeated. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ENG 595 - Professional Development Seminar - 3 (S)

Reflection and classroom-research oriented course designed to integrate the theory and practice of TESL via analysis and research of teaching experiences.

Restrictions: Must be enrolled in one of the following Concentrations: Teaching Eng as 2nd Language, Must be enrolled in one of the following Levels: Graduate; Professional

ENG 596 - Preparatory Reading/ Teaching of Writing - 3 (FMS)

Reading of relevant research and writing of three essays under supervision of committee. Restricted to MA candidates within one semester of fulfilling requirements for teaching of writing specialization.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

ENG 597 - Readings in English Studies - 1 to 3 (FMS)

Individual readings in creative writing, linguistics, literature, Teaching English as a Second Language, or Teaching of Writing. May be repeated once for a maximum of 6 hours. Requires consent of instructor and advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

ENG 598 - Preparatory Reading - 3 to 6 (FS)

MA candidates will prepare comprehensive reading lists and produce either three 20-page papers (3 credit hours max) or a scholarly exit project (6 credit hours max).

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENG 599 - Thesis - 3 to 6 (FMS)

May be repeated to a maximum of 6 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Engineering (ENGR)

ENGR 580 - Graduate Seminar - 1 (FS)

Study and oral presentation of selected problems in advanced engineering and science. Prerequisite: Enrollment in the Engineering Science Cooperative Ph.D. program.

Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Engineering

ENGR 590 - Special Investigations in Engineering Science - 1 to 3

Investigation of Individual advanced projects and problems selected by student or instructor. Prerequisite: enrollment in the Engineering Science Cooperative Ph.D. program and consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Engineering

ENGR 699 - Doctoral Dissertation - 1 to 24 (FMS)

Dissertation Research. Hours and credit to be arranged by Director of Graduate Studies. Graded S/U only.

Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Engineering
Registration Consent: Instructor

Environmental Sciences (ENSC)

ENSC 404 - Regional Environment Planning - 3

Interrelationships between regions, environments, and planning.

ENSC 411 - Hydrology - 3 (F)

Hydrologic cycle; major stream systems; and uses of water resources and their relationships to quality and future supplies. Same as GEOG 411

Attributes: PS

Prerequisites: GEOG 111.

ENSC 412 - Groundwater Hydrology - 3 (S)

Study of groundwater: occurrence; physical and chemical properties; flow and flow system modeling; relation to rock structure and lithology; and contamination of groundwater resources.

Attributes: PS
Prerequisites: CHEM 113.

ENSC 426 - Environmental Geochemistry - 3

Study of exogenic environment as a geochemical system, natural circulation of water, sediment, carbon, sulfur, nitrogen, and phosphorus; and assessment of human activities on these cycles.

Attributes: LS
Prerequisites: CHEM 113.

ENSC 431 - Environmental Toxicology - 3 (F)

Chemical and biological effects of toxic substances in living organisms at the molecular and biological levels. Topics include: routes of entry, mechanism of action, effects, and antidotes. (Same as CHEM 471)

Attributes: BLS
Prerequisites: (CHEM 120A AND CHEM 120B) OR (CHEM 121A AND CHEM 121B) AND BIOL 150 AND BIOL 151.

ENSC 432 - Fundamentals of Molecular Toxicology and Pharmacology - 3 (S)

Molecular, biochemical, and cellular mechanisms of toxicity, mode of action, metabolism, and interactions of environmental pollutants, toxic chemicals, and drugs.

Attributes: PS
Prerequisites: BIOL 319 Minimum Grade of C OR CHEM 471 Minimum Grade of C OR ENSC 431 Minimum Grade of C OR CHEM 451A Minimum Grade of C.

ENSC 434 - Fundamentals of Aquatic Ecotoxicology - 3 (F)

Biological effects of aquatic pollution from the molecular to the ecosystem level; uptake, metabolism, excretion, food chain transfer, environmental fate and transport of aquatic pollutants. Same as BIOL 434.

Attributes: LS
Prerequisites: (ENSC 220 AND ENSC 330) OR BIOL 319 OR BIOL 365 OR CHEM 471

ENSC 435 - Ecological Risk Assessment - 3 (F)

Introduction to science behind environmental policy/regulations. Application of ecology, chemistry, and toxicology to assess present and future pollution risks to populations, communities ecosystems.

Prerequisites: BIOL 365 Minimum Grade of C OR ENSC 431 Minimum Grade of C

ENSC 436 - Environmental Epidemiology - 3 (FS)

Environmental epidemiology, the study of how environmental factors (e.g., pollution, climate, geography) influence human health. Includes advanced training in data management and analysis using spreadsheets.

Attributes: LS
Prerequisites: ENSC 220 and 330; or Graduate Standing (GM).

ENSC 440 - Sustainable Environmental Practices - 3 (S)

Practices that meet the needs of the present generation without compromising the ability of future generations to meet their needs.

Attributes: BLS
Prerequisites: ENSC 340 AND ENSC 330.

ENSC 444 - Drones for Mapping and Communication - 3

This class will provide an overview of aspects related to unmanned aerial systems (UAS) operations for both environmental mapping and communication purposes. Topics will include: Basic aviation knowledge, current UAS regulations, flight control systems, UAS platforms/sensors, basic aerial mapping techniques, and aerial photography/videography for communications. Students will engage in classroom and field exercises and will gain hands-on experience with

data collection using a variety of UAS. Field trips are required.

Registration Consent: Instructor

ENSC 445 - Conservation Biogeography - 3

Analysis of biogeography principles and conservation problems. Assess changes in biosphere distributions and extinction due to human activity. Evaluates strategies to maintain biodiversity. Field trips.

Attributes: BLS
Prerequisites: GEOG 316.

ENSC 450 - Applied Ecology - 3 (S)

Applying ecological concepts and principles for solving, predicting and managing current important ecological problems, such as global climate change, conservation, wetland restoration, and environmental remediation. (Same as BIOL 464)

Attributes: LS
Prerequisites: BIOL 365 Minimum Grade of C.

ENSC 465 - Aquatic Ecosystems - 4

Biogeochemistry and community structure of aquatic systems. Three lectures one three-hour laboratory per week.

Attributes: EL, LS
Prerequisites: BIOL 151 Minimum Grade of C AND CHEM 121B Minimum Grade of C.

ENSC 466 - Terrestrial Ecosystems - 3

Community structure, biogeochemistry and historical development of terrestrial ecosystems. Two lectures, one three-hour laboratory per week. Prerequisite: One semester of botany or consent of instructor.

Attributes: EL, LS
Prerequisites: BIOL 220.

ENSC 468 - Pollution Ecology - 3

The application of biological, ecological, chemical and physical sciences to understanding the fate and transport of pollutants through ecosystems.

Prerequisites: BIOL 220 Minimum Grade of C AND BIOL 365 Minimum Grade of C.

ENSC 470 - Fundamentals of Environmental Technology - 3

Air & water pollution control, drinking water purification, sewage treatment, solid ("trash") and hazardous waste management, environmental cleanup, alternative energies, biofuels, green buildings, sustainable cities.

Attributes: BLS
Prerequisites: ENSC 220 Minimum Grade of C OR Graduate level ENSC 510 Minimum Grade of C.

ENSC 472 - Topics in Plant Physiology - 4

Topics include photosynthesis, mineral nutrition, water as related to plants growth and movement of plants. Two lectures and two laboratories per week. Requires completion of one semester of botany or consent of instructor.

Attributes: LS

ENSC 473 - Occupational Health - 3 (F)

Concepts and details regarding occupational health.

Attributes: LS

ENSC 475 - Chemical Safety Management - 3 (F)

Concepts and details regarding safe use and handling of chemicals as recommended by safety professionals.

Attributes: BPS
Prerequisites: ENSC 220.

ENSC 505 - Environmental Sciences Seminar I - 2 (FS)

Student and faculty research on current environmental issues and environmental research methods. Seminar is required to be taken during the first year of the program.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 506 - Environmental Sciences Seminar II - 1 (FS)

Student's seminar on their thesis or paper topic.

Seminar is required to be taken during or just prior to the semester of their thesis or paper defense.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 510 - Advanced Environmental Sciences and Policy - 3 (F)

Skills used in environmental sciences and policy; and coupling of science and policy in the discussion of local, regional, and global environmental concerns.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 511 - Environmental Policy - 3

Prevention, control, and remediation of environmental problems through social, political, and legal means.

Prerequisites: ENSC 510.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 512 - Environmental Law - 3

Principle environmental laws and the judicial interpretation of important environmental statutes that have developed around the protection of various aspects of the environment.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 516 - Environmental Impact Analysis - 3

Implications and applications of the National Environmental Policy Act (NEPA) and related environmental legislation. Methodologies for environmental inventory and environmental impact statement preparation. Requires Graduate standing. Same as BIOL 516.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 520 - Environmental Sampling - 3 (M)

Sampling techniques for water, air, soil, biota, and vegetation are covered for sampling activities that will provide representative environmental samples for analysis.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 525 - Environmental Chemistry - 3 (F)

Emphasizes chemical equilibrium and thermodynamics, acid-base chemistry, dissolved carbon dioxide, coordination chemistry, precipitation and dissolution, oxidation and reduction, and adsorption reactions.

Prerequisites: CHEM 120B Minimum Grade of C OR CHEM 121B Minimum Grade of C OR CHEM 131.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 528 - Analysis of Environmental Contaminants - 3 (S)

Theory and application of procedures used in the separation, detection, identification and quantitation of contaminants in environmental and biological samples.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 528L - Analysis of Environmental Contaminants Lab - 1 (S)

Laboratory techniques used in the separation, detection identification, and quantitation of contaminants in environmental and biological samples. Prerequisite: ENSC 528 with minimum grade of C or concurrent enrollment.

Prerequisites: Graduate level ENSC 528 Minimum Grade of C (concurrency allowed).
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 531 - Toxicology - 3

Chemical and biological effects of toxic substances in living organisms at the molecular and biochemical level. Topics: Routes of entry, mechanism of action, effects, antidotes, etc. Requires completion of organic chemistry, graduate standing, or consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 532 - Molecular Toxicology and Pharmacology - 3

Molecular, biochemical, and cellular mechanisms of toxicity, mode of action, metabolism, and interactions of environmental pollutants, toxic chemicals, and drugs. Same as BIOL 536.

Prerequisites: BIOL 319 OR CHEM 471 OR Graduate level ENSC 531 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 534 - Aquatic Ecotoxicology - 3

Biological effects of aquatic pollution from the molecular to the ecosystem level;uptake, metabolism, excretion, food chain transfer, environmental fate and transport of aquatic pollutants. Same as BIOL 534.

Prerequisites: (ENSC 330 AND ENSC 220) OR ENSC 531 Minimum Grade of C OR BIOL 319 OR BIOL 365 OR CHEM 471.
Restrictions: Must be enrolled in one of the following Levels: Graduate

ENSC 535 - Ecological Risk Assessment - 3

Application of ecology, chemistry, and toxicology to assess present and future pollution risks to populations, communities, ecosystems. Prerequisites: ENSC 531/CHEM 471; or ENSC/BIOL 330; or BIOL 365; or equivalent; or consent of instructor.

Prerequisites: Graduate level ENSC 531 Minimum Grade of C .
Restrictions: Must be enrolled in one of the following Levels: Graduate

ENSC 545 - Treatment Wetlands and Phytoremediation - 3

Development and use of treatment wetlands and phytoremediation technology to clean up contaminated water, soil and sediment. Focus on hydrological, biogeochemical and ecological processes. Requires completion of three semesters of both biology and chemistry or consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 550 - Applied Ecology - 3

Examination of the mechanisms, directions, and magnitude of an organism's or ecosystem's response to human perturbation. Same as BIOL 464 and 564.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 555 - Agroecology - 3

Application of ecological concepts and principles to the design and management of agricultural production; theoretical and conceptual framework for study and analysis of agroecosystems. Requires completion of three semesters of both biology and chemistry or consent of the instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 556 - Advanced Applied Ecology - 2

Techniques in critical analysis and communication in t in the field of applied ecology. Requires consent of instructor.

Prerequisites: ENSC 550 OR BIOL 464 .
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 561 - Plants and Environment - 4

Environmental effects on plant growth, reproduction, and distribution. Adaptive responses to environmental stress examined and measured. Three lectures and three laboratory hours per week for six weeks. Course taught only in the summer.

Prerequisites: BIOL 121 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 570 - Environmental Technology and Assessment - 3

Techniques used to conceptualize, stimulate, and analyze the dynamic nature of environmental systems. Theory and application of environmental modeling. Same as CE 570

Restrictions: May not be enrolled as the following

Levels: Undergraduate

ENSC 573 - GIS Modeling the Natural Environment - 3

Modeling of the natural environment using geographic information science and systems as well as environmental and biological field methodologies.

Prerequisites: GEOG 418.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ENSC 575 - Statistics For Environmental Sciences - 3 (S)

Characterization of steps, processes and statistical analysis necessary for a well-planned experiment. Theory and application of experimental design. Prerequisite: Statistics through analysis of variance. Same as BIOL 575

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 580 - Environmental Education - 3

Environmental education history, practices, curriculum, organization, evaluation, project development and research required of successful practitioners in the field. Requires consent of instructor. Same as BIOL 567

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ENSC 590 - Environmental Internship - 1 to 6 (S)

Coordinated activities of students with internships in "program relevant positions," as directed by their internship supervisors and faculty adviser.

Prerequisites: Graduate level ENSC 510 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 591 - Readings in Environmental Sciences - 1 to 2 (FMS)

Coordinated readings with faculty in the areas of science, politics, law, education, technology, and other environmental areas. May be repeated to a maximum of 2 hours. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 593 - Research in Environmental Sciences - 1 to 2 (FS)

Environmental laboratory, field, computer, and library research on an individual basis under the supervision of a faculty member. May be repeated to maximum of 2 hours. Requires consent of program director or instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ENSC 595 - Topics in Environmental Sciences - 1 to 3

In-depth examination of components of one specific environmental problem. May be repeated to a maximum of 6 hours provided no topic is repeated Requires Graduate standing.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 597 - Final Research Paper - 1 to 3 (FS)

Directed research to satisfy non-thesis paper requirement for ms degree. Topic must be approved by graduate degree committee. May be repeated to a maximum of 3 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 599 - Thesis - 1 to 6 (FMS)

Directed research to satisfy thesis requirement for ms degree. Topic must be approved by graduate degree committee. May be repeated to a maximum of 6 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ENSC 600 - Doctoral Dissertation - 1 to 12 (FS)

Dissertation research. Course requirement will be determined by the dissertation committee. Hours and credits to be arranged by graduate adviser.

Restrictions: Must be enrolled in one of the following Concentrations: SIU Coop Grad - Env Res and Pol, May not be enrolled as the following Levels: Undergraduate

Educ Psych, Found, & Research (EPFR)

EPFR 415 - The Middle School Learner - 3

Addresses characteristics of young adolescent learners and implications for instruction. Course meets Illinois requirements for middle school endorsement, and is designed for pre-service and in-service teachers.

Prerequisites: EPFR 315 AND EPFR 320.

EPFR 451 - Gender and Education - 3 (FS)

Policies and practices related to sex-role stereotyping; teacher expectations and gender; curricular bias; discrimination; personnel policies; and strategies for change. Same as WMST451

Attributes: EUSC

EPFR 500 - Professional Development in Education: Topics Will Vary - 1 to 3

Designed for professional development is education. Topics may vary. Programs may limit the number of credits transferable to a graduate program. May be repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 501 - Research Methods - 3 (FMS)

Analysis of educational research methods. Focus on conceptual, methodological and practical issues addressing both quantitative and qualitative methodologies as related to current educational issues. Knowledge of statistics helpful, but not required.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 502 - Qualitative Inquiry in Education - 3 (S)

Qualitative research methods and action research for answering educational questions. Also includes selected quantitative concepts including correlation and test score interpretation.

Restrictions: Must be enrolled in one of the following Levels: Graduate

EPFR 504 - Seminar On Multicultural Education - 3

Cultures and subcultures. Role educational institutions and agencies play to either support or depreciate human values and behaviors. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 515 - Issues in Learning Theory - 3 (FMS)

Educational implications arising from major theoretical perspectives on learning. Courses will take an in-depth look at selected topics in the field.

Prerequisites: EPFR 315.
Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 517 - Leading for Student Learning - 3

This course will focus on the learner and learning in PK-12 education.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 520 - Analysis of Educational Issues: Philosophical-Historical Foundations - 3 (S)

Selected educational problems and issues. Philosophic-historic perspective. Requires Graduate standing.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 521 - Analysis of Educational Issues: Socio-Cultural Foundations - 3 (FMS)

Selected educational problems and issues. Socio-cultural perspectives.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 523 - Access and Equity in PK-12 Education - 3 (F)

This course will focus on major equity and access issues in PK-12 education.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 563 - Selected Topics in Foundations of Education - 3 (FMS)

Contemporary educational issues or problems from perspectives grounded in social theory or political and social philosophy. May be repeated to a maximum of 6 hours if topic is not repeated. Requires Graduate standing.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 575A - Final Project - 3 (FS)

Master's final project on educational issues under supervision of a faculty member including literature review and proposed development.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

EPFR 575B - Individual Research: History of Education - 3 (S)

Master's final project on educational issues under the supervision of a faculty member, including data collection, data analysis, writing final report, and defense of the project

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

EPFR 575C - Individual Research: Intercultural Comparative Education - 3

Individual Research: Research under supervision of graduate faculty member in Intercultural-comparative education. Maximum credit accumulation for any combination of 575A-E is 6 hours. Topics studied may not be repeated. Requires consent of instructor and adviser.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 575D - Individual Research: Sociology of Education - 3

Individual Research: Research under supervision of graduate faculty member in Sociology of education. Maximum credit accumulation for any combination of 575A-E is 6 hours. Topics studied may not be repeated. Requires consent of instructor and adviser.

Restrictions: May not be enrolled as the following Levels: Undergraduate

EPFR 575E - Individual Research: Education and Politics - 3

Individual Research: Research under supervision of graduate faculty member in Education and politics. Maximum credit accumulation for any combination of 575A-E is 6 hours. Topics may not be repeated. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EPFR 601 - Quantitative Inquiry - 3 (S)

Quantitative methods for educational issues, including descriptive statistics, visualizing data, making inferences, and exploring relationships in categorical and continuous data.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

EPFR 603 - Foundations of Research in Education - 3

Offers a graduate-level introduction to educational research, including quantitative, qualitative, and mixed methods designs and approaches. Key concepts of educational research are covered.

Restrictions: Must be enrolled in one of the following Majors: Educational Leadership, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

EPFR 605 - Qualitative Inquiry - 3 (F)

Formulation of research questions derived from P-12 school contexts, employing qualitative data collection and analysis methods in order to find the proper fit between theories, data, and practice.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

Finance (FIN)

FIN 420 - Problems in Corporate Finance - 3 (FMS)

In-depth development of analytical decision models; and basic and advanced corporate financial theory and application to business and industrial settings. Will not count toward MA or MS in Economics and Finance.

Prerequisites: FIN 320 Minimum Grade of C OR ACCT 312 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Business

FIN 430 - Portfolio Analysis - 3 (FMS)

Modern portfolio theory and asset pricing models; theory and practice of portfolio performance evaluation; structure of equity markets; trading of securities; and mutual funds. Satisfies research requirement for business program.

Attributes: EL
Prerequisites: FIN 320 Minimum Grade of C OR FIN 420 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Colleges: School of Business

FIN 431 - Derivative Securities - 3 (FS)

Introduction to derivatives; options, forwards, futures and swaps; trading of derivatives and the arbitrage relationships; and pricing of derivatives on equities, debt, commodities and foreign exchange.

Prerequisites: FIN 320 OR Graduate level FIN 527 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys,Economics and Finance

FIN 435 - Real Estate Finance & Investment - 3

Fundamental concepts, and investigation and evaluation of real (estate) assets. Single residence, multiple dwellings, and commercial properties. Applications based on financial theory and methodology.

Prerequisites: FIN 320.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

FIN 440 - Financial Institutions - 3 (FS)

Financial management of financial institutions: commercial banks, S&L's, insurance companies, and other financial institutions. Asset and liability management.

Prerequisites: FIN 320.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

FIN 445 - Applied Security Analysis & Portfolio Management - 3

Hands-on experience in the practice of investing. Introduces students to fundamental techniques of stock selection, portfolio diversification approaches, and performance evaluation techniques.

Prerequisites: FIN 320 Minimum Grade of B AND FIN 430 Minimum Grade of C.

FIN 450 - International Finance - 3 (F)

International financial markets. Determinants of foreign exchange rates and risk management in global markets. Managerial implications of foreign exchange exposure and firm valuation. International investment analysis.

Attributes: EGC, SS

Prerequisites: FIN 320 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

FIN 460 - Corporate Financial Analysis & Strategy - 0 or 3 (FS)

In-depth analysis of financial data and stock prices. Study the relationship among financial markets, financial strategy, and welfare of corporate stake holders. Will not count toward MA or MS in Economics and Finance.

Prerequisites: FIN 420.
Restrictions: Must be enrolled in one of the following Colleges: School of Business

FIN 490 - Independent Study in Finance - 1 to 6

Investigation of topic areas through individual or small group readings under supervision of faculty member. Requires consent of instructor and department chairperson. May be repeated up to a total of 6 hours. Will not count toward MA or MS in Economics and Finance.

Restrictions: Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Instructor and Dept Chair

FIN 525 - Financial Strategy, Growth and Control - 3

Financial management using comparative methods of ratio and relative value analysis. The course intends to focus on application of these approaches to financial decision making.

Prerequisites: Graduate level FIN 527 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

FIN 527 - Corporate Finance - 3 (FMS)

Theoretical concepts and analytical tools for solving problems and making corporate investment and financing decisions. Firm valuation, international security markets, and foreign investments. Will not count toward MA or MS in Economics and Finance.

Prerequisites: Graduate level ACCT 524 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

FIN 540 - Health Policy, Politics, & Ethics - 3

Politics, policy and ethics in the U.S. health care system. Implications of government involvement in the organization; and financing and delivery of health care.

Prerequisites: Graduate level MGMT 514 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

FIN 543 - Capital Resource Allocation - 3

Theory and applications of large scale capital expenditures. Emphasis on selection and use of models and affects on firm value.

Prerequisites: Graduate level FIN 527 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

FIN 544 - Health Care Financial Management - 3

Study of major financial management concepts and issues involved with current and proposed methods of third party reimbursement of health care providers.

Prerequisites: Graduate level FIN 527 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

FIN 545 - Entrepreneurial Finance - 3 (S)

Applies financial strategy, tools, and analysis to entrepreneurial ventures at various stages of the venture life cycle. Key topics include evaluating, planning, financing, operating, controlling, and monetizing a venture.

Prerequisites: Graduate level FIN 527 Minimum Grade of C.

Restrictions: Must be enrolled in one of the following Departments: School of Business, Must be enrolled in one of the following Levels: Graduate

FIN 550 - Multinational Corporate Finance - 3

Multinational corporate finance; and investment decision, financial policy, and cost of capital. Foreign exchange rates, risk and hedging. International diversification. Portfolio theories, mergers, and acquisitions.

Prerequisites: Graduate level FIN 527 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

FIN 597 - Independent Study in Finance - 3

Topics not considered in current offerings and in greater depth than regularly titled courses permit. Empirical investigation is encouraged. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Dept Chair-Program Director

FIN 599 - Thesis in Finance - 3 to 6

Independent research and study on approved topic. Requires a three-member committee with a thesis chairperson. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Dept Chair-Program Director

Foreign Language & Literature (FL)

FL 486 - Methods for Teaching Foreign Languages PK-12 - 3 (F)

Practical study of second language acquisition, cognitive variations, instructional methodologies, and assessment in foreign language classroom. Required for state teacher certification of all majors intending to teach foreign language in PK-12 schools.

Attributes: HUM
Prerequisites: (FR 301 OR GER 301 OR SPAN 301).

FL 491 - Cultural & Language Workshop: Italian, Chinese, Russian, etc. - 3 to 6 (S)

Comparative or contrastive linguistics, advanced methodology and techniques. In-depth study of foreign cultures; and travel-study abroad. Supervised projects in foreign studies. May be repeated to a maximum of 6 hours provided no topic is repeated.

Attributes: EGC, HUM

Forensic Sciences (FORS)

FORS 501 - Foundations of Criminalistics - 3

In-depth perspective regarding scientific philosophy, integrity, scene investigation procedures and techniques, and criminalistics in crime scene investigations.

Prerequisites: Corequisite(s): FORS 503 .
Corequisites: FORS503
Restrictions: Must be enrolled in one of the following Levels: Graduate

FORS 503 - Thesis Proposal and Formulation - 1 (F)

Introduction to the methods for developing and researching a thesis in forensic science. Professional standards of ethics, writing, and communication will be introduced.

Prerequisites: Corequisite(s): FORS501 .
Corequisites: FORS501
Restrictions: May not be enrolled as the following Levels: Undergraduate

FORS 521 - Forensic Pattern Investigation - 1 (F)

Forensic pattern investigation of firearm evidence and latent fingerprints using microscopy and chemical development methods.

Prerequisites: Graduate level FORS 501 Minimum Grade of C .

Restrictions: Must be enrolled in one of the following Levels: Graduate

FORS 525 - Forensic Courtroom Procedure and Moot Court - 1 (S)

Prerequisites: Graduate level FORS 501 Minimum Grade of C .
Restrictions: Must be enrolled in one of the following Levels: Graduate

FORS 541 - Data Analysis in Forensic Science Seminar - 2 (S)

Introduction to advanced statistical methods applied to forensic sciences applications, including Bayesian statistics, multivariate methods, and likelihood ratios.

Prerequisites: Graduate level FORS 501 Minimum Grade of C AND Graduate level BIOL 417 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

FORS 590 - Topics in Forensic Sciences - 1 to 4 (S)

This course provides an in-depth examination of an area of Forensic Sciences. It may be repeated up to 12 credit hours as long as no topic is repeated.

Restrictions: Must be enrolled in one of the following Majors: Forensic Sciences, Must be enrolled in one of the following Levels: Graduate

FORS 591 - Forensic Science Seminar - 2 (F)

Two profession-style presentations are required of all graduate students. Students will participate in critique and group discussion of the presentations. Must be repeated once for credit.

Prerequisites: Graduate level FORS 501 Minimum Grade of C (concurrency allowed).
Restrictions: Must be enrolled in one of the following Levels: Graduate

FORS 595 - Forensic Science Research - 2 (FS)

Directed research on a significant research topic, normally extending more than 2 semesters. Minimum 6 hours required.

Restrictions: Must be enrolled in one of the following Levels: Graduate

FORS 599 - Thesis in Forensic Science - 1 (S)

Directed research and thesis writing for completion of the MS degree. Topic and thesis advisor must be approved by graduate committee.

Prerequisites: Graduate level FORS 501 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

French (FR)

FR 454 - Selected Topics in Literature - 3

Selected topics in literature or literary criticism. May be repeated to a maximum of 6 hours provided that no topic is repeated.

Attributes: HUM
Prerequisites: FR 301.

FR 491 - Cultural and Language Workshop French - 3 to 6

Comparative or contrastive linguistics; advanced methodology; and techniques. In-depth study of foreign cultures, and travel-study abroad. Supervised projects in French. May be repeated to a maximum of 6 hours provided that no topic is repeated.

Attributes: EGC, HUM

FR 499 - Readings in French - 3 (FM)

Selected areas of language, literature, and culture. Individual work or small groups supervised by one or more members of French faculty.

Attributes: HUM
Registration Consent: Instructor

FR 551 - Seminar On A Selected French Author - 3

Intensive study of one author. May be repeated once for a total of 6 hours if authors vary.

Restrictions: May not be enrolled as the following

Levels: Undergraduate

General Business Admin (GBA)

GBA 489 - Study Abroad - 1 to 15 (MS)

Participation in school's exchange programs. Credit earned by completion of an approved plan of study at an exchange institution. May be repeated for a maximum of 30 hours undergrads & 15 hours for grads. Requires appropriate language competency, and approval by director of exchange programs.

Restrictions: Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Dept Chair-Program Director

Geography (GEOG)

GEOG 401 - Geography of Development - 3 (aF)

Analysis of development in world regions including more developed countries and less developed countries. Emphasis on theories of development and issues associated with various levels of development.

Attributes: EGC, IS, SS
Prerequisites: Complete all Foundations Requirements.

GEOG 402 - Cultural Landscape - 3 (aF)

Identification and analysis, both objective and subjective, of the Earth as transformed by human action with emphasis on the contemporary situation. Field trip.

Attributes: BHUM

GEOG 403 - Advanced Urban Geography - 3 (S)

Selected topics in spatial patterns and processes of urbanization. Topics may include: planning, transportation, sustainability, society and culture, health, housing, global cities, and economic functions. May be repeated to a maximum of 9 hours. Prerequisite: GEOG 303 with minimum grade of C or better, or consent of instructor, or concurrent enrollment.

Attributes: BSS
Prerequisites: GEOG 303 Minimum Grade of C

GEOG 404 - Medical Geography - 3

This course examines medical geographic principles to understand the diversity of health around the world and the processes connecting them.

Attributes: SS
Prerequisites: GEOG 205 Minimum Grade of C

GEOG 405 - Geography of Food - 3 (aS)

Examination of food production and distribution. The relationship between food and culture from geographic perspective.

Attributes: EH, HUM
Prerequisites: GEOG 205
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

GEOG 406 - Political Geography - 3

Fundamental principles of geopolitics, geostrategic theory, electoral geography, and their application to the United States and other major world regions. Can be taken for graduate credit. Requires completion of stated prerequisite or consent of instructor.

Attributes: EGC, SS
Prerequisites: GEOG 205 Minimum Grade of C

GEOG 407 - Spatial Thinking & Behavior - 3 (aF)

This course examines how people understand, think about, and behave in space.

Attributes: BICS
Prerequisites: GEOG 205 Minimum Grade of C

GEOG 409 - Weather Forecasting - 3

Collection, display, and application of weather data for forecasting. Interpretation of weather maps, codes, and diagrams using basic meteorological principles to produce forecasts.

Attributes: PS
Prerequisites: GEOG 211 Minimum Grade of C

GEOG 410 - Soils - 3 (aF)

Formation processes, classification, distribution, use, and problems associated with Earth surface materials. Field trip.

Attributes: PS
Prerequisites: ESCI 111 Minimum Grade of C OR GEOG 210 Minimum Grade of C OR ENSC 220 Minimum Grade of C

GEOG 411 - Hydrology - 3 (F)

Hydrologic cycle, major stream systems, and uses of water resources and their relationships to quality and future supplies. Same as ENSC 411.

Attributes: PS
Prerequisites: MATH 120 OR MATH 120E

GEOG 412 - Groundwater Hydrology - 3 (S)

Study of groundwater: occurrence; physical and chemical properties; flow and flow system modeling relation to rock structure and lithology; and contamination of groundwater resources.

Attributes: PS
Prerequisites: CHEM 113 AND (MATH 120 OR MATH 120)

GEOG 416 - Conservation Biogeography - 3

Analysis of biogeography principles and conservation problems. Assess changes in biosphere distributions and extinction due to human activity. Evaluates strategies to maintain biodiversity. Field trips. Same as ENSC 445.

Attributes: BLS
Prerequisites: GEOG 316

GEOG 417 - River Landscapes - 3

Combines scientific understanding of river and watershed processes with ecological concepts to address rivers as comprehensive systems.

Attributes: BPS
Prerequisites: GEOG 210 or permission of Instructor or graduate admission to Geography.

GEOG 418 - Geographic Information Systems (GIS) - 3 (FS)

Concepts, basic theory, and principles of GIS using both Raster and Vector data models in a PC environment.

GEOG 420 - Interactive & Animated Cartography - 3

Investigate and develop alternatives such as interactive maps and map animation to traditional map representations such as static paper maps.

Prerequisites: GEOG 320
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

GEOG 421 - Digital Elevation Modeling - 3 (F)

Processing of digital elevation models and the generation of 3D renderings with digital orthophotos, satellite imagery, digital raster graphics, and/or other 3D features.

Prerequisites: GEOG 418
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

GEOG 422 - Remote Sensing and Digital Image Processing - 3 (F)

Concepts of remote sensing including air-photo interpretation, digital image preprocessing, and classification of satellite based imagery.

GEOG 423 - Computer Mapping - 3

Cartographic design techniques related to computer aided conversion, analysis, and presentation of data. Includes use of arc view, symbol perception, and map design. Requires consent of instructor.

GEOG 424 - Vector Based Geographic Information Systems (GIS) - 3 (S)

Examination of vector topology, digital map transformation, manipulation, analysis, and composition.

Prerequisites: GEOG 418

GEOG 425 - Raster Based Geographic Information Systems (GIS) - 3 (S)

In-depth study of cell-based (Raster) GIS concepts. Includes the development of cell based GIS models for addressing environmentally related issues.

Prerequisites: (MATH 120 OR MATH 120E OR

MATH 120I OR MATH 125) AND GEOG 418

GEOG 426 - Field Study - 1 to 6

Field investigation of physical and cultural features of the environment. May be repeated to a max of 6 hours. Requires advanced standing or consent of instructor.

GEOG 427 - Internship - 1 to 6 (FMS)

Work experiences in public or private agencies. May be repeated to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Majors: Geography
Registration Consent: Instructor

GEOG 429 - Storm Chasing & Assessment Field Course - 3

Exposes students to the unique environments and hazards associated with local thunderstorms. Students will benefit from lecture and participation in event assessment. Requires consent of instructor.

Attributes: PS
Prerequisites: GEOG 409
Restrictions: Must be enrolled in one of the following Majors: Geography
Registration Consent: Instructor

GEOG 430 - Global Climate Change - 3

Addresses (a) the scope and controls of climate on various scales; (b) climate throughout history; and (c) addresses both contemporary and future global climate change.

Attributes: BPS
Prerequisites: GEOG 211 Minimum Grade of C AND GEOG 314 Minimum Grade of C

GEOG 431 - Web-based Online Mapping Using ArcGIS API for JavaScript - 3 (M)

Concepts of web-based online mapping services and map mashups; development of interactive map applications for use on the Internet using HTML, CSS, JavaScript, and ArcGIS API for JavaScript.

Attributes: BICS
Prerequisites: GEOG 320 Minimum Grade of C

GEOG 432 - Python Scripting in GIS - 3 (S)

Use of Python as a tool to automate geoprocessing tasks in the creation of maps, tools and add-ins in ArcGIS.

Prerequisites: GEOG 418 Minimum Grade of C OR Graduate level GEOG 418 Minimum Grade of C

GEOG 444 - Drones for Mapping and Communication - 3

This class will provide an overview of aspects related to unmanned aerial systems (UAS) operations for both environmental mapping and communication purposes. Topics will include: Basic aviation knowledge, current UAS regulations, flight control systems, UAS platforms/sensors, basic aerial mapping techniques, and aerial photography/videography for communications. Students will engage in classroom and field exercises and will gain hands-on experience with data collection using a variety of UAS. Field trips are required.

Registration Consent: Instructor

GEOG 451 - Topics in Human Geography - 3

Specific topics in human geography based on faculty expertise. May be repeated to a maximum of 6 hours.

Attributes: SS
Restrictions: Must be enrolled in one of the following Departments: Geography and GIS

GEOG 452 - Topics in Physical Geography - 3 (S)

Specific topics in physical geography based on faculty expertise. May be repeated to a maximum of 6 hours.

Attributes: PS
Restrictions: Must be enrolled in one of the following Majors: Geography

GEOG 453 - Topics in Regional Geography - 3 (aF)

Specific topics in regional geography based on faculty expertise. May be repeated to a maximum of 6 hours.

Attributes: SS
Restrictions: Must be enrolled in one of the following Majors: Geography

GEOG 454 - Topcs in Geographic Techniques - 3 (FS)

Specific topics in geographic techniques based on faculty expertise. May be repeated to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Departments: Geography and GIS

GEOG 490 - Tutorial in Geography - 1 to 3 (SaF)

Individual and small group conferences with faculty to examine geographic topics. May be repeated to a maximum of 6 hours. Requires consent of adviser and instructor.

Registration Consent: Instructor and Advisor

GEOG 500 - Seminar in Cultural Geography - 3 (F)

Selected topics in human-environment interactions. May be repeated to a maximum of 9 hours if topics vary. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

GEOG 510 - Seminar in Phys Geog - 3 (S)

Selected topics as related to various aspects of physical environments and patterns of human occupancy. May be repeated once to a maximum of 6 hours if topics vary. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

GEOG 520 - Research Methods in Geography - 3 (S)

Preparation of a plan of study to investigate a geographical problem.

Restrictions: May not be enrolled as the following Levels: Undergraduate

GEOG 521 - Contemporary Philosophy & Explanation in Geography - 3 (F)

Explores major themes and paradigm shifts in contemporary philosophy of geography. Compares positivist, humanist, and structuralist modes of explanation in geography.

Restrictions: May not be enrolled as the following Levels: Undergraduate

GEOG 522 - Techniques in Geography - 3 (F)

Introduces qualitative and quantitative techniques in geographic research. Exposes students to data collection, analysis, and display methods.

Restrictions: May not be enrolled as the following Levels: Undergraduate

GEOG 525 - Seminar in Geographic Information Systems - 3 (S)

Selected topics dealing with application of GIS. May be repeated once to a maximum of 6 hours if topics vary. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

GEOG 573 - GIS Modeling of the Natural Environment - 3

Modeling of the natural environment using Geographic Information Science and Systems as well as environmental and biological field methodologies.

Prerequisites: Graduate level GEOG 418 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

GEOG 590 - Independent Study - 1 to 6 (MSaF)

May be repeated to a maximum of 6 hours. Course history: Course replaces the quarter based course Geography 530. Requires consent of instructor and graduate adviser.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

GEOG 598 - Graduate Research Project - 3 (F)

Culminating experience of the non-thesis option for a M.S. degree in Geographical Studies. Requirements include a research paper and presentation based on the research paper. Prerequisites: Permission of Graduate Program Director.

Prerequisites: Graduate level GEOG 520 Minimum Grade of C AND Graduate level GEOG 521 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Departments: Geography and GIS, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

GEOG 599 - Thesis - 1 to 6 (SaF)

May be repeated to a maximum of 6 hours. Requires consent of thesis committee chairperson and graduate adviser.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

German (GER)

GER 411 - German Civilization - 3

German-speaking areas of the world. Anthropological and social aspects of various cultures.

Attributes: EGC, HUM
Restrictions: Must be enrolled in one of the following Majors: Foreign Languages and Literature

GER 454 - Seminar - 2 to 4

Critical and analytical study of selected topics of German literature or literary criticism. May be repeated to a maximum of 4 hours provided that no topic is repeated.

Attributes: BHUM

GER 499 - Readings in German - 3 to 6 (SaF)

Selected areas of German language, literature, and culture. Individual or small group work supervised by one or more members of German faculty. May be repeated to a maximum of 6 hours provided no topic is repeated. Requires consent of instructor.

Attributes: HUM

GER 551 - Seminar On Selected Author - 3

Intensive study of one author. May be repeated for total of 6 hours provided authors vary. Course history: Course replaces the quarter based course German 501.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Greek (GRK)

GRK 499A - Readings in Ancient Greek: Development of Lexical & Structural Competence - 4

Development of lexical and structural competence. GRK499A, 499B, and 499C must be taken in sequence and are prerequisites to GRK499D, 499E, or 499F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit. Requires consent of instructor.

Attributes: HUM
Registration Consent: Instructor

GRK 499B - Readings in Ancient Greek: Continuation of GRK 499A - 4

Continuation of GRK 499A. Must be taken in sequence and are prerequisites to GRK 499D, 499E, or 499F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit. Requires consent of instructor.

Attributes: HUM
Prerequisites: GRK 499A
Registration Consent: Instructor

GRK 499C - Readings in Ancient Greek: Selected Masterpieces of Literature - 4

Selected masterpieces of literature. GRK 499A, 499B, and 499C must be taken in sequence and are prerequisites to GRK 499D, 499E, or 499F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated

for credit. Requires consent of instructor.

Attributes: HUM
Registration Consent: Instructor

GRK 499D - Readings in Ancient Greek: History - 4

History. GRK 499A, 499B, and 499C must be taken in sequence and are prerequisites to GRK 499D, 499E, or 499F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit.

Attributes: HUM
Prerequisites: GRK 499A AND GRK 499B AND GRK 499C

GRK 499E - Readings in Ancient Greek: Poetry - 4

Poetry. GRK 499A, 499B, and 499C must be taken in sequence and are prerequisites to GRK 499D, 499E, or 499F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit.

Attributes: HUM
Prerequisites: GRK 499A AND GRK 499B AND GRK 499C

GRK 499F - Readings in Ancient Greek: Philosophy - 4

Philosophy. GRK 499A, 499B, and 499C must be taken in sequence and are prerequisites to GRK 499D, 499E, or 499F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit.

Attributes: HUM
Prerequisites: GRK 499A AND GRK 499B AND GRK 499C

Gerontology (GRN)

GRN 587 - Interdisciplinary Seminar in Gerontology - 3

Aspects of aging from both disciplinary and professional perspectives, including anthropology, biology, economics, political science, business, dentistry, medicine, and nursing. Prerequisite: PSYC 487 or consent of instructor

Restrictions: May not be enrolled as the following Levels: Undergraduate

GRN 588 - Programs, Services, and Resources in Aging - 3

Major federal, state, and local programs serving older adults. Older American Act and titles of the act. Prerequisite: 587 or consent of instructor

Prerequisites: PSYC 587 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

GRN 598 - Practicum in Gerontology - 1 to 12

Professional training provided by gerontological specialists in aging network, business, social service, and health care industries. Field placement dependent upon student's discipline or profession. Minimum of 3 hours of practicum required for interdisciplinary graduate sequence in gerontology certificate of completion. May be repeated to a maximum of 12 hours. Prerequisites: 587, or 588; consent of practicum coordinator

Prerequisites: Graduate level GRN 587 Minimum Grade of C OR Graduate level GRN 588 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

Healthcare Informatics (HCIM)

HCIM 596A - Capstone I - 1 (MS)

During Capstone I the student will initiate their project. Students will use their approved project proposal to do the background work and literature review. An outline of the final paper is required at the end of the course.

Restrictions: Must be enrolled in one of the following Majors: Healthcare Informatics, Must be enrolled in one of the following Levels: Graduate

HCIM 596B - Capstone II - 1 (FM)

During Capstone II the student will continue their capstone project and submit a rough draft of their capstone project paper. The rough draft should

include a literature review/background as appropriate for the project.

Restrictions: Must be enrolled in one of the following Levels: Graduate

HCIM 596C - Capstone III - 1 (FM)

During Capstone III the student will complete their capstone project and submit their final capstone project paper and deliver a presentation. Students must successfully complete all other required courses before enrolling in Capstone III.

Restrictions: Must be enrolled in one of the following Levels: Graduate

Higher Educ. & Student Affairs (HESA)

HESA 503 - Research Methods in Higher Education - 3 (F)

Introduction to research methods in higher education, with a focus on conceptual, methodological, and practical issues in quantitative and qualitative research. Research proposal assignment.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 504 - Foundations of Higher Education - 3 (aF)

Key developments in the role and function of higher education in the U. S., with emphasis on student affairs practice.

Restrictions: Must be enrolled in one of the following Majors: Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 505 - Athletics in Higher Education - 3 (F)

This course will examine the role of intercollegiate athletics in higher education. This course will explore the structures, conditions, and issues that shape the dynamics between athletics and their institutions. Prerequisite: None

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, Must be enrolled in one of the following Levels: Graduate

HESA 506 - Assessment and Evaluation in Student Affairs - 3 (FS)

Introduction to assessment and program evaluation in higher education.

Prerequisites: Graduate level HESA 503 Minimum Grade of C OR Graduate level EPFR 503 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 514 - College Student Learning and Development - 3 (S)

Overview of college student development theories, processes and problems, with a focus on application.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 515 - History and Current Issues in Athletics - 3 (S)

This course will examine the socio-political aspects of intercollegiate athletics through historical and current dynamics. This course will also investigate perceptions and experiences of student-athletes.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, Must be enrolled in one of the following Levels: Graduate

HESA 516 - Leadership Theory & Practice in Higher Education - 3

Advisement of college students; the design, implementation, and evaluation of developmentally appropriate strategies for individuals and groups.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 522 - Diversity in Higher Education - 3 (F)

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 524 - Legal and Ethical Issues in Student Affairs - 3

Legal status of students; legal and ethical issues surrounding admissions, financial aid, student records, discipline, and support services.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 525 - Law and Ethics in Sports - 3 (F)

This course covers legal concepts, ethical issues, and risk management factors impacting sport management and industry policy formation and practice.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, Must be enrolled in one of the following Levels: Graduate

HESA 533 - Data Analytics - 3

Concepts of data analytics, the role of a data analyst within higher education and sports, and understanding the tools used to perform data analytics.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, Must be enrolled in one of the following Levels: Graduate

HESA 534 - Philanthropy - 3

The course will examine philanthropy, institutional/organizational advancement and fundraising activities.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, Must be enrolled in one of the following Levels: Graduate

HESA 535 - Athletic Finance and Facilities - 3 (S)

The course focuses on athletics finance and facilities in professional, intercollegiate, interscholastic, and recreational athletics.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, Must be enrolled in one of the following Levels: Graduate

HESA 554A - Practicum and Professional Development - 3

Field assignment in student affairs offices in higher education settings. Seminar discussions of work experience (3 credit hours).

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 554B - Practicum and Professional Development - 3

Students complete a professional development capstone

Prerequisites: Graduate level HESA 554A Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

HESA 563 - Selected Topics in Higher Education & Student Affairs - 3 (F)

Contemporary educational issues or problems from perspectives grounded in social theory or political and social philosophy. May be repeated to a maximum of 6 hours if topic is not repeated.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 564 - The Community College - 3

Overview of two-year postsecondary institutions,

with emphasis on the evolution and functions of comprehensive community college.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 574 - Introduction to Student Affairs Administration - 3 (F)

Major leadership theories and their application to higher education, with emphasis on student affairs programs.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 583 - Organization and Administration of Higher Education - 3

Community college and four-year public university and college systems; governance and programs.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

HESA 594 - Final Research Project - 3 (FS)

Research culminating in final project on student affairs topic. Written report and oral defense.

Restrictions: Must be enrolled in one of the following Majors: College Student Personnel Adm,Higher Ed and Student Affairs, May not be enrolled as the following Levels: Undergraduate

History (HIST)

HIST 400 - Topics in History - 3 (FS)

Selected topics such as biography of a major figure, recent theme in world history, etc. May be repeated for a maximum of 9 hours provided that no topic is repeated.

Attributes: SS

HIST 403 - Ancient Mesopotamia - 3

History and culture of ancient Mesopotamia and surrounding regions from CA. 10,000 B.C. to CA. 539 B.C.E.

Attributes: BSS, EGC, EREG

HIST 415 - Modern German History - 3

German history from 1871 to present including Germany under Bismarck, World War I, the Nazi period, World War II, division, and reunification.

Attributes: BHUM, EGC, EREG
Prerequisites: HIST 111B.

HIST 416 - World War I and Its Aftermath: 1914 - 1921 - 3

War's origins, course, and results; military action as well as political, social, economic, and cultural effect on home fronts, war and world revolution: 1917-1921.

Attributes: BSS, EREG

HIST 420B - European Social, Cultural & Intellectual History: French Revolution to Present - 3

French revolution to present.

Attributes: BSS, EGC

HIST 422A - Late Modern Europe: Vienna Congress to the Great War - 3

Vienna Congress to the great war.

Attributes: BSS, EGC
Prerequisites: HIST 111A.

HIST 422B - Late Modern Europe: World War I through World War II - 3

World War I through World War II.

Attributes: BSS, EGC
Prerequisites: HIST 111B.

HIST 422C - Late Modern Europe: Europe since World War II - 3

Europe since World War II.

Attributes: BHUM, EGC, EREG

HIST 423A - Trail of Tears: Native American History from Columbus to Removal - 3

Native American history to 1840. Investigation of disparate cultures in contact using historical and anthropological methods, with emphasis on Native American world views.

Attributes: BHUM, EGC, EUSC

HIST 423B - Indian Wars, Progressives and Casinos: Native American History from Removal to Present - 3

Native American history 1840 to present. Investigation of disparate cultures in contact using historical and anthropological methods, with emphasis on Native American world views.

Attributes: BHUM, EUSC

HIST 424 - History of the Holocaust - 3

The history of the Holocaust, the state sponsored murder of European Jews, and Nazi persecution of Roma, homosexuals, the disabled, and other groups deemed undesirable.

Attributes: BSS, EGC, EREG

HIST 425 - History of American Ideas 1620-1865 - 3

History of American Ideas 1620-1865 traces ideological conflicts and compromises that created the United States through the Civil War.

Attributes: BHUM, EUSC

HIST 427 - History of South Africa - 3 (FS)

Course will familiarize students with the major themes in the history of South Africa largely focusing on the period of sustained western contact from 1652 - present.

Attributes: BSS, EGC, EREG, EUSC

HIST 428 - Topics in European Women's Studies - 3

Selected topics in women's history. Course varies from semester to semester. May be repeated to a maximum of nine hours provided that no topic is repeated. Same as WMST 428.

Attributes: BHUM, EGC, EREG

HIST 430 - American Colonial History - 3

Founding of colonies in British America and their development to 1763.

Attributes: BSS, ERGU

HIST 431 - American Revolution and Constitution - 3

Conflicting forces and events that led to the American Revolution and to the Constitution.

Attributes: BSS

HIST 433 - American Slavery Through Biography - 3

This course uses biography and autobiography to examine slavery in the United States, and examine the difficulties and benefits of slave narratives as primary sources for writing history.

Attributes: BHUM, ERGU, EUSC
Prerequisites: HIST 130A Minimum Grade of C.

HIST 434 - Southern History in American Culture - 3

This course uses popular culture (film, television, music, etc.) to analyze how Southern history is presented in American culture.

Attributes: BHUM, ERGU, EUSC
Prerequisites: HIST 200 Minimum Grade of C OR HIST 201 Minimum Grade of C.

HIST 435 - History of the American Home - 3

Research and study of American vernacular architecture and landscape with a focus on site visits and engagement.

Attributes: BSS

HIST 439 - Aid to Africa: Humanitarianism and Development in African History - 3

This course explores the history of aid in Africa, beginning with systems of philanthropy existent in Africa before the arrival of Europeans, and continuing through the colonial period into the present, exploring such themes as the abolition

movement, children, refugees, health, violence, and economic development programs.

Attributes: BSS, EGC, EREG

HIST 442 - Black Urban Experience - 3

Social, economic, and political history. Emphasizes community life and development, as well as race relations.

Attributes: BSS, EUSC

HIST 444 - The Civil War Era - 3

Exploring in-depth questions related to the era of the American Civil War. Seminar will emphasize shared inquiry through research and historiographical methods.

Attributes: BSS, ERGU, EUSC

HIST 446 - Editing History - 3

Editing History is an introduction to documentary editing. The course will produce a documentary edition of a historical primary source for publication.

Attributes: BHUM

HIST 447 - Oral History - 3 (aF)

Workshop course designed to provide practical experience conducting oral history interviews and to familiarize you with major issues in oral history.

Attributes: BSS, EGC

HIST 451 - Native Americans Encounter Lewis and Clark - 3 (M)

Investigates the Lewis and Clark expedition from American and especially Native American points of view.

Attributes: BHUM, EUSC

HIST 452 - Native American Women - 3

Investigates Native American gender roles, particularly women's roles, from an ethnohistorical perspective. Same as WMST 452.

Attributes: BHUM, EUSC

HIST 453 - Society and Culture of the Medieval Islamic World - 3

Social, cultural, and secular topics are the focus of our study of the Islamic world, 1000-1800 CE. Primary texts in English translations complement scholarly analyses.

Attributes: BHUM, EGC, EREG

HIST 470 - Public History - 3

Explores how history is communicated and practiced in public arenas, including museums, monuments, documentaries, cemeteries, and historic buildings.

Attributes: BSS

HIST 471 - Community Engaged Digital History - 3 (M)

This course is intended to offer an introduction to the rich and complex field of public and digital history.

Attributes: BSS

HIST 490 - Internship in History - 3 to 6 (FMS)

Professional experience in aspects of historical research, preservation, exhibition, and interpretation. May be repeated to a maximum of 6 hours. Enrollment by permission only.

Registration Consent: Instructor

HIST 500A - History Seminar: American - 3 (FS)

History seminar: American. Any part or combination of parts may be repeated to a maximum of 12 hours provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

HIST 500B - History Seminar: European - 3

History seminar: European. Any part or combination of parts may be repeated to a maximum of 12 hours provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

HIST 500D - History Seminar: World Comparative - 3 (aF)

History seminar: World/comparative. Any part or combination of parts may be repeated to a maximum of 12 hours provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

HIST 510 - Readings in History - 1 to 3 (FMS)

Supervised reading for students with sufficient background. May be repeated to a maximum of 6 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

HIST 554 - Problems in 19th Century American History - 3

Lectures, discussions, and readings on significant issues and interpretations concerning them.

Restrictions: May not be enrolled as the following Levels: Undergraduate

HIST 555 - Grad Core Sem In Hist & Theory - 3 (F)

Theory in historical practice, focusing on major theorists, the structure of their thought, and its application. Required for all history graduate students.

Restrictions: May not be enrolled as the following Levels: Undergraduate

HIST 556 - Graduate Seminar in Historical Research - 3 (S)

Research methods and practice for graduate students. Required of all MA and co-op PhD students. Repeatable once for a total of 6 credit hours.

Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): SIU Coop Grad Prog - History,History, Must be enrolled in one of the following Levels: Graduate

HIST 580 - Museum Studies - 3 (F)

History; theory; structure; organization of museums; planning and interpretation of exhibits; collections management; and ethical and legal concerns. Cross-listed with ART 580.

Restrictions: May not be enrolled as the following Levels: Undergraduate

HIST 581 - Management of Museum Collections - 3 (M)

Professional practices in museum collections management including ethical standards; statutory, regulatory, and judicial rules; risk management; conservation; and development. Prerequisite: HIST/ART 580. Cross-listed with ART 581.

Restrictions: May not be enrolled as the following Levels: Undergraduate

HIST 582 - Practicum in Exhibit and Program Development - 3 (S)

Intensive, independent exhibition, educational project, or program related to museum studies. Cross-listed with ART 583.

Prerequisites: ART 580 OR HIST 580 AND ART 581 OR HIST 581.
Restrictions: May not be enrolled as the following Levels: Undergraduate

HIST 590 - Internships in Museology - 3 (F)

Professional experience in aspects of museum work, including exhibition, education, interpretation, or administration. This would not fulfill HIST 490 repeat. Completely different course. Registration by permission only.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

HIST 598 - Readings for Exams - 1 to 6 (FM)

Preparation for written and oral comprehensive master's exams and portfolio presentation.

Prerequisites: Graduate level HIST 555 Minimum Grade of C OR (Graduate level HIST 555A Minimum Grade of C AND Graduate level HIST 555B Minimum

Grade of C) AND Graduate level HIST 556 Minimum Grade of C OR (Graduate level HIST 556A Minimum Grade of C AND Graduate level HIST 556B Minimum Grade of C).
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): History, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

HIST 599 - Thesis - 3 to 6 (FMS)

Directed research to satisfy thesis requirement for M.A. degree. May be repeated to a maximum of 6 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

HIST 699 - Dissertation Research - 1 to 12 (FS)

Dissertation research. Hours and credit to be arranged by the Director of Graduate Studies. Graded S/U only.

Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: College of Arts and Sciences
Registration Consent: Instructor

Humanities (HUM)

HUM 400 - Symposium in the Humanities - 3

Subjects not covered by the standard curriculum. May be repeated up to 6 hours. Credit toward concentration at the discretion of the department.

HUM 430 - Digital Curation and Storytelling - 3

This course covers advanced topics in the theory, ethics, and practice of digital cultural heritage, including data visualization, text analysis, mapping, and digital storytelling.

Attributes: BHUM, IS
Prerequisites: Complete all Foundations Requirements.

Industrial Engineering (IE)

IE 415 - Operations Research Deterministic Models - 3 (S)

Linear programming; problem formulation; simplex algorithm; transportation and network problems; duality theory; and sensitivity theory. Requires completion of stated prerequisite or consent of instructor. Same as OR 440.

Prerequisites: MATH 250

IE 427 - Knowledge-Based Systems - 3 (M)

Engineering-oriented perspective on artificial intelligence (AI) technology. General AI concepts and specifically knowledge-based intelligent systems and machine learning applied to engineering problem-solving.

Prerequisites: CS 140 Minimum Grade of C OR CS 145 Minimum Grade of C

IE 430 - Managing Engineering and Technology - 3 (M)

Management functions of planning; organizing, motivating, controlling, and analyzing application of these functions in engineering research, design, production, technical marketing, and project management. Requires Junior or Senior standing in IE.

Restrictions: Must be enrolled in one of the following Majors: Industrial Engineering

IE 431 - Project Analysis and Control - 3 (M)

Examines the theories and best practices for completing projects on time, on budget, and to specification.

Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

IE 445 - Foundations of Financial Engineering - 3

Financial engineering integrates computational intelligence, mathematical finance, numerical methods and computer simulations for pricing, trading, hedging, and investment decisions.

Prerequisites: IE 345 Minimum Grade of C AND STAT 380 Minimum Grade of C

IE 451 - Methods Design and Work Measurements - 3 (S)

Design of work systems. Methods and techniques employed in measuring work. Current philosophy underlying improvement in work methods and procedures used to measure work performed. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: STAT 380 OR IE 365

IE 458 - Human Factors Engineering - 3

Analysis of the limitations of humans in man-machine systems to increase productivity and meet physiological needs of system participants. Principles are applied through design problems. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: IE 451

IE 461 - Operations Research Stochastic Models - 3 (S)

Probability models; elementary queuing theory with single or multiple servers. Markov processes and models; and decision theory. Same as OR 441.

Prerequisites: STAT 380 OR STAT 480A

IE 462 - Six Sigma, Quality and Process Improvement - 3 (F)

Provides a comprehensive understanding of the role and value of Six Sigma as an integrated approach to solving process-based problems in quality. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: STAT 380 with minimum grade of C; or Graduate Standing (GM).

IE 463 - Reliability Engineering - 3

Probabilistic models for the reliability of coherent systems. Statistical models for lifetimes of components and repairable systems. Reliability estimation and prediction. MIL standards. Same as STAT 484. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: STAT 480B Minimum Grade of C OR Graduate level STAT 480B Minimum Grade of C OR STAT 380 Minimum Grade of C OR IE 365 Minimum Grade of C

IE 464 - Design & Analysis of Experiments with Applications to Science and Engineering - 3 (S)

Design for experimentation and statistical inference with engineering and science applications. One-way, two-way classification; complete and incomplete block designs. Factorial and fractional factorial designs. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: STAT 380 Minimum Grade of C OR (STAT 480A Minimum Grade of C AND STAT 480B Minimum Grade of C)

IE 465 - Design & Control of Qual Sys - 3 (S)

Statistical process control techniques, determination of process capability, quality control using variable and attribute control charts, specs and tolerances, control variation, and acceptance sampling. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: STAT 380

IE 466 - Engineering Metrology - 3

Exposes the student to the principles associated with dimensional measurement, inspection, measurement systems analysis, and geometric dimensioning and tolerancing.

Prerequisites: IE 370

IE 467 - Total Quality and Taguchi Methods - 3 (S)

Apply concepts and methods of quality improvement including total quality, quality function deployment, design of experiments, quality loss function, etc. Case studies and software tools. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: IE 465

IE 468 - Operations Research Simulation - 3 (F)

Design of simulation models using a high level simulation programming language. Applications in production, inventory, queuing, and other models. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: IE 461 Minimum Grade of C OR Graduate level IE 461 Minimum Grade of C OR STAT 380 Minimum Grade of C OR OR 441 Minimum Grade of C OR Graduate level OR 441 Minimum Grade of C.

IE 470 - Manufacturing Systems - 3 (S)

Design, control and analysis of manufacturing systems in various configurations such as single and multiple stations, manual and automated assembly lines, flow and job shop. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: IE 370 AND STAT 380.
Restrictions: Must be enrolled in one of the following Majors: Industrial Engineering

IE 475 - CAD/CAM/CAE (Comp Aided Engr) - 3 (S)

Advanced 3-D solid and assembly modeling in computer-integrated design and manufacturing environments; parametric and associative modeling; and sketch modeling. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: IE 375.

IE 476 - Plantwide Process Control - 3 (F)

A treatment of techniques in automated control. Digital, analog, open and closed loop controls are discussed. Students gain experience with PC data acquisitions and control.

Prerequisites: ECE 210 AND CS 145 OR CS 140.

IE 477 - Computer Integrated Manufacturing Systems - 3 (S)

Application of robot theory integrated with automated manufacturing systems. Emphasis on design laboratory exercises. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: (CS 145 Minimum Grade of C OR CS 140 Minimum Grade of C) AND (IE 470 Minimum Grade of C OR Graduate level IE 470 Minimum Grade of C) AND (IE 476 Minimum Grade of C OR Graduate level IE 476 Minimum Grade of C).

IE 483 - Production Planning & Control - 3 (F)

Development and applications of models and techniques for designing integrated production systems to manage material, service, and information flows in response to fluctuating market demands. (2 hours lecture, 2 hours laboratory). Requires senior standing in Industrial engineering or consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Industrial Engineering, Must be enrolled in one of the following Levels: Graduate; Undergraduate

IE 484 - Facilities Planning - 3 (F)

Theory and methods of facilities layout and planning emphasizing activity relationships; space requirements; materials handling and storage; plant layout; and facility location problems. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: IE 415 AND IE 451
Restrictions: Must be enrolled in one of the following Colleges: School of Engineering

IE 488 - Lean Production Systems - 3 (S)

An integrated and holistic approach to efficient and synchronized production of goods and/or services with emphasis on work organization, manufacturing flow, process control, lean metrics, lean logistics and value stream mapping tools and techniques for lean manufacturing implementation. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: IE 483

IE 490 - Integrated Engineering Design - 3 (S)

Individual/ group laboratory or industrial projects of a research, design, or development nature which may apply to engineering systems. (2 hours lecture, 2 hours laboratory).

Prerequisites: IE 483 AND IE 484

Restrictions: Must be enrolled in one of the following Majors: Industrial Engineering,Mechanical Engineering,Manufacturing Engineering

IE 492 - Special Topics in Industrial Engineering - 1 to 6 (FS)

Selected topics of current interest in Industrial Engineering and related fields. May include individual research projects for students with honors standing.

Restrictions: Must be enrolled in one of the following Colleges: School of Engineering
Registration Consent: Instructor

IE 500 - Graduate Seminar in Industrial Engineering - 0 (FS)

Restrictions: May not be enrolled as the following Levels: Undergraduate

IE 515 - Engineering Optimization Models - 3 (F)

Linear and nonlinear optimization for IME. Taxonomy, modeling, formulation, convex optimization, duality, unconstrained, and constrained optimization. Computational complexity and NP-completeness. Engineering Applications.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 527 - Intelligent Engineering Systems - 3

Designing intelligent engineering systems, solving complex problems through knowledge-based design using hybrid architecture comprising expert systems, artificial neural networks, and optimization.

Prerequisites: IME 427 OR IE 427 OR Graduate level IME 427 Minimum Grade of C OR Graduate level IE 427 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 528 - Data Analytics and Machine Learning - 3 (S)

Introduction to predictive analytics, data mining, and machine learning techniques and their applications to data intensive problems using modern software tools.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 530 - Engineering and Technology Management - 3

Applied management principles in manufacturing and high-tech environments. Planning and forecasting; motivating technical people; product life cycle; and concurrent engineering. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 531 - Engineering Project Management - 3 (S)

Applying IE skills to industry-based, team-oriented problems involving cost estimating; planning; scheduling; and implementation using advanced techniques such as CPM, PERT, GERT.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 557 - Value Engineering - 3 (FM)

Effective techniques to improve overall performance highlighting value methodology, lean production management, strategic planning, and everyday business decisions in private industry.

Prerequisites: (IME 345 AND IME 451 AND IME 470) OR (IE 345 AND IE 451 AND IE 470) OR (Graduate level IME 451 Minimum Grade of C AND Graduate level IME 470 Minimum Grade of C) OR (Graduate level IE 451 Minimum Grade of C AND Graduate level IE 470 Minimum Grade of C).
Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 570 - Assembly Engineering - 3 (F)

Statistical and traditional tolerancing methods, cost/tolerance relationship, design for assembly, part count reduction techniques, assembly tooling, and inspection for assembly components.

Prerequisites: IME 428 OR Graduate level IME 428 Minimum Grade of C OR IE 428 OR Graduate level IE 428 Minimum Grade of C.
Restrictions: Must be enrolled in one of the

following Levels: Graduate

IE 574 - Product Development Process and 3D Printing - 3 (FS)

Restrictions: May not be enrolled as the following Levels: Undergraduate

IE 575 - Advanced CAD/CAM/CAE - 3 (S)

Computer-aided design, computer-aided manufacturing, and computer-aided analysis for industrial products using 3D models. Requires engineering graduate student standing or consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Industrial Engineering, Must be enrolled in one of the following Levels: Graduate

IE 576 - Advanced Computer Integrated Manufacturing Systems - 3 (S)

Advanced topics in system integration, optimization, data collection, device monitoring, and software development for automated systems.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 580 - Advanced Measurement Systems - 3

Advanced topics associated with dimensional measurement, inspection, measurement system analysis, and measurement of other physical parameters. Emphasis on automated and precision measurement techniques.

Prerequisites: IME 466 OR Graduate level IME 466 Minimum Grade of C OR IE 466 OR Graduate level IE 466 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 581 - Industrial Image Processing: Visual Quality Control in Manufacturing - 3 (F)

Restrictions: May not be enrolled as the following Levels: Undergraduate

IE 583 - Supply Chain Logistics Systems - 3 (MS)

Design of integrated production systems based on supply chain logistics, enterprise-wide performance measurement, distribution planning, vehicle routing, demand management, replenishment management, and real-time control.

Restrictions: Must be enrolled in one of the following Majors: Industrial Engineering, Must be enrolled in one of the following Levels: Graduate

IE 591 - Independent Study - 1 to 4 (FMS)

Individual investigation of a topic in Industrial Engineering to be agreed upon with the instructor. May be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

IE 592 - Topics in Industrial Engineering - 1 to 5 (FS)

Topic of special interest; course schedule will include name of topic. May be repeated to a maximum of 9 hours provided no topic is repeated. Prerequisite: consent of instructor.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IE 599 - Thesis - 1 to 6 (FMS)

Directed research on a specific Industrial Engineering topic to satisfy thesis requirement. May be repeated to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate

Integrative Studies (INTG)

INTG 500 - Proposal Development - 1 (FS)

Independent development of the thesis or final project proposal for the Master of Integrative Studies program. Prerequisite: Must have consent of the advisory committee.

Restrictions: Must be enrolled in one of the following Majors: Integrative Studies, Must be

enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

INTG 590 - Diversity, Equity, Inclusion and Social Justice Practicum - 3

Application of key concepts from the Diversity, Equity, Inclusion and Social Justice curriculum. We will be creating, completing, facilitating, and reviewing an original seminar training demonstrating student proficiency.

Restrictions: Must be enrolled in one of the following Concentrations: INTG - DEI and Social Justice, Must be enrolled in one of the following Levels: Graduate

INTG 593 - Final Research Paper - 1 to 5 (FS)

Independent scholarly or creative activity at the master's level for the non-thesis option. May be repeated to a maximum of 5 hours.

Restrictions: Must be enrolled in one of the following Majors: Integrative Studies, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

INTG 599 - Thesis Research - 1 to 5

Independent research at the master's level for the thesis option. May be repeated to a maximum of 5 hours.

Restrictions: Must be enrolled in one of the following Majors: Integrative Studies, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

Instructional Technology (IT)

IT 410 - Media in Instruction - 3

Designing lessons with multi-sensory approach. Demonstrations and hands-on experiences with audio, video projection, and computer equipment. Emphasis on software evaluation and utilization.

IT 430 - Computer Based Publishing & Instruction - 3 (FS)

Opportunities to work with various computer hardware and software systems to prepare instructional materials. Emphasis is placed on design and production of effective instructional materials.

IT 435 - Producing Instructional Materials - 3

Development of instructional products which integrate various digital media. Emphasis on production, visual communication, graphics, authoring environments, and evaluation of instructional software. Prerequisite: Consent of department chair or program director.

IT 442 - Media Selection - 3

Analysis and criteria for selecting aids and reviewing sources. Includes principles and theories of library media selection, assessment and policy for library media collection development.

Registration Consent: Instructor

IT 443 - Instructional Media For Children and Young Adults - 3

Media for preschool children and young adults. Includes comparison and evaluation of major writers, artists, illustrators and designers of media and identification of established genres.

Registration Consent: Instructor

IT 448 - Cataloging for School Librarians - 3

Principles and skills of cataloguing all types of materials, including the use of bibliographic records, Dewey Decimal classification, and Library of Congress Subject Headings.

Registration Consent: Instructor

IT 450 - Using Video For Instruction - 3

Instructional television as medium for learning. Emphasis on delivery systems including commercial, public, and satellite programs; and teacher-produced instructional sequences.

IT 481 - Computers in Education: Theory and Practice - 3 (F)

Research on and effective methods for using computers in an educational setting and a systematic framework for integrating computers into the curriculum.

IT 486 - Web Design for Instruction - 3 (S)

Web design concepts for educational settings including usability concepts, web style criteria, interaction and instructional strategies; and legal/ethical issues related to web development. Requires consent of department chair or program director.

IT 490 - Special Topics - 1 to 6

Varied content. Topics of immediate concern in instructional technology field. May be repeated up to 6 hours as long as no topic is repeated.

IT 500 - Major Concepts in Instructional Technology - 3 (S)

Major concepts, critical issues, and research in instructional technology, including historical perspectives, design models, media, development, and evaluation.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 501 - Foundational Issues for Educational Technology Specialists - 3 (FS)

Major concepts, critical issues, and research in educational technology, including historical perspectives of technology in education, K-12 based design models, and educational media.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 505 - Needs Assessment and Program Evaluation in Instructional Technology - 3 (F)

Key concepts and approaches of needs assessment and program evaluation in instructional technology related to quantitative and qualitative evaluation methods, data collection, analysis, and interpretation.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IT 508 - Instructional Design and Media Selection for Healthcare Informatics - 3 (FM)

Provides healthcare informatics professionals with foundation in the skills of planning, designing, developing, implementing, and evaluating employee trainings.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IT 510 - Instructional Systems Design - 3 (F)

Concepts and procedures related to systematic design, development, implementation, and evaluation of instruction.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 520 - Performance Technology - 3 (F)

Assessment and analysis of training and educational needs; procedures for performing instructional analysis; and consultation strategies.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 530 - Managing Instructional Development - 3 (S)

Systematic procedures for design, development and evaluation of learning systems. Emphasis on consultation skills, analysis procedures, development and implementation issues, project management, and evaluation models.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 540 - Distance Education - 3

Examination of theories and applications of distance education in educational and training settings in a variety of instructional modalities.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 542 - Advanced Reference - 3

Evaluation of information sources including utilization of appropriate data bases in varied and specialized subject areas such as social sciences; science and technology; and literature, and humanities. Prerequisite: IT 447

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 544 - Cataloging of Non-Print Materials - 3

Cataloging, organizing, and classifying non-book materials for school library media centers and small to medium size public libraries. Emphasis on non-print media. Prerequisite: 448

Prerequisites: IT 448.
Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 548 - Administration if Instructional Materials Program - 3

Principles and theory of administration for school media centers and libraries. Emphasis on policies, goals, personnel, organization, budgets, communication, systems analysis, and future trends.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 550 - Emerging Technologies in Education - 3 (F)

Current and emerging technologies in the field of education. Software and accessories will be utilized in a variety of instructional settings.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 560 - Leadership in Educational Technology - 3 (S)

Issues related to the integration of technology in educational institutions are explored. Emphasis is given to planning models, leadership, management, professional development, planning models, and integration strategies.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 561 - Designing Digital Materials - 3 (F)

Experience with technology tools designed to enhance learning. Emphasis is on production and development for implementation in classrooms.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 562 - Social Media for Teachers - 3 (S)

Using social media platforms to extend classroom learning. Emphasis is on interacting with social media resources and applying these platforms in the classroom.

Restrictions: Must be enrolled in one of the following Levels: Graduate

IT 563 - Games and Simulations - 3

Experience with games, simulations, and strategies to facilitate student learning. Emphasis is on development of new (and utilization of existing) games and simulations to strengthen student background knowledge.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 565 - Managing Technology Resources for Education - 3

Installation, maintenance, and troubleshooting of a variety of operating systems, data networks, and distance learning systems in educational contexts. Focus on management, support, and delivery options. Requires consent of department chair or program director.

Prerequisites: IT 481 AND Graduate level IT 560 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 567 - Tools for Online Teaching and Learning - 3 (M)

Synchronous and asynchronous tools as communication and delivery channels within online classrooms.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 568 - Design and Development of Online Lessons, Modules, and Courses - 3 (M)

Processes for designing, developing, and evaluating online course content, including lessons, modules, and entire courses.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 569 - Managing and Facilitating the Online Classroom - 3 (M)

Principles and procedures for managing and facilitating the daily operations of online classrooms.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 570 - The Learner/Instructional Strategies - 3

Design of instructional strategies which accommodate individual differences in learning. Prerequisite: EDUC 515 or consent of instructor

Prerequisites: Graduate level EDUC 515 Minimum Grade of C OR Graduate level EPFR 515 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 571 - Field Experiences I - 1

Field experiences in area schools focusing on situational analysis and planning for effective technology integration practices. Requires consent of department chair or program director.

Prerequisites: IT 481 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate; Undergraduate Quarter Record

IT 572 - Field Experiences II - 2

Field experiences in area schools focusing on the design of technology-based integration strategies and the evaluation of technology-based learning experiences. Requires consent of department chair or program director.

Prerequisites: Graduate level IT 571 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate; Undergraduate Quarter Record

IT 573 - Field Experiences III - 3

Field experiences in area schools focusing on technology support, management, administration and leadership. Requires consent of department chair or program director.

Prerequisites: Graduate level IT 572 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate; Undergraduate Quarter Record

IT 574 - Educational Technology Specialist Final Project - 3

Development, implementation, and evaluation of an educational technology solution to a K-12 issue. Proposal and defense required. Requires completion of 27 hours towards Educational Technology Specialist degree or consent of instructor.

Prerequisites: Graduate level IT 572 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

IT 580 - Design of Interactive Learning Environments - 3

Instructional theories and strategies for designing digital multimedia learning environments. Emphasis on design methods, interactivity, and usability issues.

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 582 - Development of Interactive Learning Environments - 3

Principles and techniques for developing interactive learning environments using advanced authoring and production tools.

Prerequisites: IT 486 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 590 - Seminar in Instructional Technology - 3

Topics in instructional technology. May be repeated once for a total of 6 hours. Requires consent of instructor

Restrictions: May not be enrolled as the following Levels: Undergraduate

IT 592 - Field Study - 1 to 6

Supervised study in instructional technology. Work setting will closely match student's educational and professional objectives. May be repeated to a maximum of 6 hours. Prerequisite: Consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

IT 595 - Problems in Instructional Technology - 1 to 6 (FS)

Individual study of selected problems in instructional technology. May be repeated to a maximum of 6 hours. Requires consent of advisor

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

IT 596 - Design Studio 1 - 1 (FS)

Field-based experiences in the design of learning activities and utilization of appropriate tools for computer-based instructional development, including graphics, multimedia, and software authoring.

Prerequisites: Graduate level IT 486 Minimum Grade of C AND Graduate level IT 500 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

IT 597 - Design Studio 2 - 2 (FS)

Field-based experiences in the design and production of interactive multimedia, electronic performance support systems, internet resources, and other forms of technology-enhanced learning environments. Student must have completed 15 hours of course work in Instructional Technology.

Prerequisites: (Graduate level IT 510 Minimum Grade of C OR Graduate level IT 580 Minimum Grade of C) AND Graduate level IT 596 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

IT 598 - Final Project - 3 (FS)

Design, development, and testing of instructional product. Proposal and defense required. Requires completion of 30 hours toward of degree and consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

IT 599 - Thesis - 1 to 6

Supervised research on approved topic. Proposal and defense required. May be repeated to a maximum of 6 hours. Requires consent of instructor and advisor

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

Italian (ITAL)

ITAL 499 - Independent Study in Italian - 2 to 6

Selected areas of language, literature, and culture. Individual work or small groups supervised by Italian faculty.

Attributes: HUM
Prerequisites: ITAL 202.

Kinesiology (KIN)

KIN 480 - Independent Study - 1 to 4 (FS)

Individual investigation of a topic to be agreed upon by the instructor. May be repeated for a maximum of 4 hours so long as topics vary. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Exercise Science,Exercise and

Wellness,Kin. - Exercise Physiology,Kinesiology,Kin. - Pedagogy/Administration,Kin. - Sport and Exercise Bhvr.,Kinesiology,Kinesiology
Registration Consent: Instructor and Advisor

KIN 490 - Selected Topics in Applied Kinesiology - 1 to 4

Theory and practice in topical areas such as exercise physiology; biomechanics; sport psychology; exercise psychology; skill teaching; and fitness assessment. May be repeated to a maximum of 6 hours provided no topics are repeated.

Restrictions: Must be enrolled in one of the following Majors: Exercise Science,Exercise and Wellness,Kin. - Exercise Physiology,Kinesiology,Kin. - Pedagogy/Administration,Kin. - Sport and Exercise Bhvr.,Kinesiology,Kinesiology
Registration Consent: Instructor and Advisor

KIN 499 - Individual Research - 1 to 4 (FS)

Selection, investigation, and writing of research paper under supervision of instructor. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Exercise Science,Exercise and Wellness,Kin. - Exercise Physiology,Kinesiology,Kin. - Pedagogy/Administration,Kin. - Sport and Exercise Bhvr.,Kinesiology,Kinesiology
Registration Consent: Instructor and Advisor

KIN 501 - Exercise Psychology - 3 (FMS)

Provides an in-depth analysis of psychosocial factors related to preventive and rehabilitative exercise behavior.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 502 - Sport Psychology - 3 (F)

Explores the psychological factors influencing participation patterns and performance in sport, and effects of sport upon psychological responses.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 503 - Diversity and Culture in Sport - 3 (S)

Provides an in-depth analysis of the interaction between physical activity and society including the social and cultural processes and institutions which influence, and are influenced by, physical activity.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 504 - Counseling Skills for Sport Psychology - 3 (F)

The course will follow a scientist-practitioner model with an emphasis on theories grounded in counseling and performance psychology and the practical application of said theories.

Prerequisites: Graduate level KIN 502 Minimum Grade of C AND Graduate level KIN 508 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Concentrations: Exercise and Sport Psychology, Must be enrolled in one of the following Levels: Graduate

KIN 505 - Psychology of Coaching - 3 (M)

Will focus on using best practices in coaching based on research and readings by those in the field.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 506 - Exercise and Sport Psychology for Special Populations - 3 (S)

Provides an in depth analysis of the biological, psychological, social, environmental, and political factors that are related to successful application of exercise and sport psychology principles with special populations (e.g., injured, youth, differently abled).

Restrictions: Must be enrolled in one of the following Concentrations: Exercise and Sport Psychology, Must be enrolled in one of the following Levels: Graduate

KIN 507 - Physical Activity Promotion - 3 (S)

Designed to explore practical and theory-based strategies for increasing physical participation and adherence among various populations.

Prerequisites: Graduate level KIN 501 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 508 - Professional Standards and Ethics in Sport Psychology - 3 (M)

This course will deal with ethical issues within the field of applied sport psychology.

Restrictions: Must be enrolled in one of the following Concentrations: Exercise and Sport Psychology, Must be enrolled in one of the following Levels: Graduate

KIN 509 - Research Methods in Kinesiology - 3 (FMS)

Prepares students to read, understand, and evaluate research in the field of Kinesiology.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 511 - Fundamentals of Exercise and Fitness - 3 (F)

This course will help students develop knowledge, skills, and abilities regarding exercise and fitness so they can incorporate exercise into their own lives and promote an active lifestyle to others.

Restrictions: Must be enrolled in one of the following Concentrations: Exercise and Sport Psychology, May not be enrolled as the following Levels: Undergraduate

KIN 512 - Advanced Exercise Physiology - 3 (F)

Discussion and application of the physiological and metabolic effects that occur at rest and during exercise in humans.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 513 - Clinical Exercise Physiology - 3 (M)

Review of evaluations, mechanisms and adaptation by which exercise prevents and treats chronic diseases.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 514 - Advanced Exercise Assessment and Prescription - 3 (FS)

Provides in-depth training for the various concepts related to exercise assessment and prescription for healthy persons and those with chronic disease and/or disability.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 516 - Advanced Cardiovascular and Respiratory Physiology - 3 (FS)

Discussion and application of the cardiovascular and respiratory physiological effects that occur at rest and during exercise in humans. Includes interpretation of electrocardiograms (ECG).

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 517 - Pathophysiology and Treatment of Obesity - 3 (MS)

Provides in depth content of the etiology, pathophysiology, prevention and treatments for obesity in adults and children.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 518 - Exercise Endocrinology - 3 (MS)

Provides content on the cellular and systems physiology of the neuro-endocrine system, as well as presents research-based findings of how exercise alters neuro-endocrine function.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 519 - Advanced Concepts and Techniques in Strength and Conditioning - 3

This course will prepare students to take the Certified Strength and Conditioning Specialist (CSCS) certification exam through the National Strength and Conditioning Association.

Restrictions: Must be enrolled in one of the following Concentrations: Exercise Physiology, May

not be enrolled as the following Levels: Undergraduate

KIN 521 - Special Topics in Analysis of Research in Physical Education and Coaching Pedagogy - 3 (M)

Designed to help teachers and coaches understand important literature in Physical Education and Coaching. Students will interpret and utilize research to inform instruction. May be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 522 - Anaylsis of Teaching Behaviors in Sport and Physical Education - 3 (F)

Selection and observation of appropriate teaching behaviors in sport and K-12 physical education.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 524 - Special Topics in Assessment in Sport and Physical Education - 3 (M)

Focuses on particular skills necessary for developing, implementing, and evaluating assessment in sport and physical education. May be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 525 - Physical Activity and Mental Health - 3 (S)

Selection and presentation of appropriate physical activity interventions for selected mental health topics.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 526 - Special Topics in Diversity in Physical Education and Coaching Pedagogy - 3 (M)

Designed to help students demonstrate an understanding of diversity issues such as race, ethnicity, gender, sexuality, religion, physical ability, language, and/or social class. May be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 527A - Action Research in Physical Education - 3 (F)

Introduces students to action research, a form of self-reflective systematic inquiry by practitioners on their own practice.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 527B - Presentation of Action Research in Physical Education - 3 (S)

Introduces students to presenting action research, a form of self-reflective systematic inquiry by practitioners on their own practice.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 528 - Physical Activity and Mental Health - 3

Survey of positive effects of physical effects of physical activity on several mental health issues including stress, depression and cognition.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 532 - Research Methods in Sport Management - 3

Analysis of Qualitative Research Methods studying multiple sport management research streams. Case studies, content analysis, ethnography, policy analysis, and legal research are included.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 533 - Issues in Athletics and Education - 3

Current topics analysis, through principles of management, strategy, sociology, law and other disciplines.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 534 - Strategic Management in the Sport Industry - 3

Firms in the sport industry, attainment of competitive advantage, analytical tools studying corporate environment, culture, change, planning and implementation.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 535 - Administrative Theory & Practice in Kinesiology - 3

Administrative and supervisory functions in physical education and sport organizations including organizational policies and procedures for instructional programs.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 536 - Sport Facility Design and Management - 3

Principles of design, construction, maintenance and management of sports centers.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 537 - Development & Governance of International Sports - 3

Cultural influences affecting the emergence, governance and organization of selected international sports.

Restrictions: Must be enrolled in one of the following Levels: Graduate

KIN 538 - Special Topics in Sport Management - 3

Human Resource management, risk management, sport communications, Interscholastic, Intercollegiate and /or professional sport administration, coach theory and administration.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 541 - Advanced Human Nutrition and Metabolism - 3 (FS)

Discussion and application of macronutrients and micronutrients on metabolism in health and disease.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 550 - Selected Topics in Kinesiology - 3 to 12 (MS)

Analysis of reports, current problems, trends, and research in exercise science. Repeatable up to 12 hours at discretion of advisor, provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

KIN 555 - Internship in Exercise Physiology - 1 to 9 (FMS)

Individualized planned experience in agency, organization, or institution appropriate to student's area of professional interest.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

KIN 580 - Readings in Kinesiology - 1 to 4 (FMS)

Supervised reading in selected topics. May be repeated to a maximum of 8 hours.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

KIN 598 - Final Seminar in Exercise and Sport Psychology - 3 (FS)

This course is intended for non thesis students to complete their final project. The course will help each student navigate through project design and implementation.

Prerequisites: Graduate level KIN 501 Minimum Grade of C AND Graduate level KIN 502 Minimum Grade of C AND Graduate level KIN 503 Minimum Grade of C AND Graduate level KIN 506 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Concentrations: Exercise and Sport

Psychology, May not be enrolled as the following Levels: Undergraduate

KIN 599 - Thesis in Kinesiology - 1 to 6 (FS)

Minimum of 3 credit hours must be earned by student selecting thesis track. May be repeated to a max of 6 hours.

Prerequisites: Graduate level KIN 509 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Latin (LAT)

LAT 499A - Readings in Latin: Learning Language - Selections from Classical, Medieval, and Renaissance Latin - 4

Learning language through selections from classical, medieval, and renaissance Latin. LAT 499 A, LAT 499 B, and LAT 499 C must be taken in sequence and are prerequisite to LAT 499 D, LAT 499 E, or LAT 499 F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated

Attributes: HUM
Registration Consent: Instructor

LAT 499B - Readings in Latin: Continuation of LAT 499A - 4

Continuation of A. LAT 499 A, LAT 499 B, and LAT 499 C must be taken in sequence and are prerequisite to LAT 499 D, LAT 499 E, or LAT 499 F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit. Requires consent of instructor.

Attributes: HUM
Registration Consent: Instructor

LAT 499C - Readings in Latin: Continuation of LAT 499B - 4

Continuation of B. LAT 499 A, LAT 499 B, and LAT 499 C must be taken in sequence and are prerequisite to LAT 499 D, LAT 499 E, or LAT 499 F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit. Requires consent of instructor.

Attributes: HUM
Registration Consent: Instructor

LAT 499D - Readings in Latin: Second-Year Level/Content Varies - 4

Second-year level. Content varies with instructor. LAT 499 A, LAT 499 B, and LAT 499 C must be taken in sequence and are prerequisite to LAT 499 D, LAT 499 E, or LAT 499 F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit.

Attributes: HUM
Registration Consent: Instructor

LAT 499E - Readings in Latin: Second-Year Level/Content Varies - 4

Second-year level. Content varies with instructor. LAT 499 A, LAT 499 B, and LAT 499 C must be taken in sequence and are prerequisite to LAT 499 D, LAT 499 E, or LAT 499 F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit.

Attributes: HUM
Registration Consent: Instructor

LAT 499F - Readings in Latin: Second-Year Level/Content Varies - 4

Second-year level. Content varies with instructor. LAT 499 A, LAT 499 B, and LAT 499 C must be taken in sequence and are prerequisite to LAT 499 D, LAT 499 E or LAT 499 F which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit.

Attributes: HUM
Registration Consent: Instructor

Mathematics (MATH)

MATH 400 - Development of Modern Mathematics - 3 (FS)

The development of mathematics since the discovery of calculus.

Attributes: PS
Prerequisites: MATH 152 Minimum Grade of C

AND MATH 223 Minimum Grade of C

MATH 411 - The Teaching of Secondary Mathematics 2 - 3 (F)

The second of two courses focusing on the content and pedagogy applicable to secondary mathematics teacher licensure. Does not count toward non-teaching degree or minor in mathematics.

Attributes: PS
Prerequisites: MATH 311 Minimum Grade of C

MATH 416A - Mathematics Topics for Teachers: Analysis - 1 to 3 (aF)

Analysis. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 416B - Mathematics Topics for Teachers: Algebra - 1 to 3

Algebra. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 416C - Mathematics Topics for Teachers: Number Theory - 1 to 3

Number theory. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 416D - Mathematics Topics for Teachers: Probability & Statistics - 1 to 3

Probability and statistics. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 416E - Mathematics Topics for Teachers: Mathematical Concepts - 1 to 3

Mathematical concepts. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 416F - Mathematics Topics for Teachers: Geometry - 1 to 3

Geometry. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 416G - Mathematics Topics for Teachers: History of Mathematics - 1 to 3

History of Mathematics. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 416H - Mathematics Topics for Teachers: Applied Mathematics - 1 to 3

Applied mathematics. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 416I - Mathematics Topics for Teachers: Logic & Foundations - 1 to 3

Logic and foundations. May be repeated to a maximum of 3 hours so long as no topic is repeated. May not count toward a concentration or minor in mathematics. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

MATH 420 - Abstract Algebra - 3 (aS)

Rings, fields, integral domains, homomorphisms, factor rings, rings of polynomials, prime ideals, maximal ideals, extension fields, and vector spaces.

Attributes: PS
Prerequisites: MATH 320 Minimum Grade of C

MATH 421 - Linear Algebra II - 3 (FS)

Advanced study of vector spaces: Cayley-Hamilton Theorem, minimal and characteristic polynomials, Eigen spaces, canonical forms, Lagrange-Sylvester Theorem, and applications.

Attributes: PS
Prerequisites: MATH 223 Minimum Grade of C AND MATH 250 Minimum Grade of C AND MATH 321 Minimum Grade of C

MATH 423 - Combinatorics and Graph Theory - 3

Methods of solving problems which are discrete in nature. Counting combinatorial reasoning and modeling; generating functions; and recurrence relations. Graphs: definitions, examples, basic properties, applications, and algorithms. Some knowledge of programming is recommended.

Attributes: PS
Prerequisites: MATH 223 with a grade of C or better or (MATH 152 and MATH 224, both with grades of C or better)

MATH 430 - A Geometric Introduction to Topology - 3

Topological spaces and equivalence through the study of knots, links, surfaces, 3-manifolds and other selected topics.

Attributes: PS
Prerequisites: MATH 350 Minimum Grade of C

MATH 435 - Foundations for Euclidean & Non-Euclidean Geometry - 3 (F)

Points; lines; planes; space; separations; congruence; parallelism and similarity; non-Euclidean geometries; and independence of the parallel axiom. Riemannian and Bolyai-Lobachevskian geometries.

Attributes: PS
Prerequisites: MATH 250 Minimum Grade of C AND MATH 321 Minimum Grade of C AND (MATH 320 Minimum Grade of C OR MATH 350 Minimum Grade of C)
Registration Consent: Instructor

MATH 437 - Differential Geometry - 3

Curves and surfaces in Euclidean 3-space from the perspective of classical differential geometry. Topics include: Frenet frames, fundamental surface forms, geodesics, and the Gauss-Bonnet theorem.

Attributes: PS
Prerequisites: MATH 250 Minimum Grade of C AND MATH 321 Minimum Grade of C

MATH 450 - Real Analysis I - 3 (F)

Integration; infinite series, sequences and series of functions and their properties.

Attributes: PS
Prerequisites: MATH 350 Minimum Grade of C

MATH 451 - Introduction to Complex Analysis - 3

Analytic functions, Cauchy-Riemann equations, harmonic functions, elements of conformal mapping, line integrals, Cauchy-Goursat theorem, Cauchy integral formula, power series, the residue theorem and applications.

Attributes: PS
Prerequisites: MATH 350 Minimum Grade of C

MATH 462 - Applied Numerical Analysis - 3 (FS)

Polynomial interpolation and approximations; numerical integration; differentiation; and direct and iterative methods for linear systems. Numerical solutions for ODE's and PDE's. Matlab programming required.

Attributes: PS
Prerequisites: MATH 250 Minimum Grade of C AND MATH 305 Minimum Grade of C AND (CS 140 Minimum Grade of C OR CS 145 Minimum Grade of

C OR MATH 165 Minimum Grade of C)

MATH 464 - Partial Differential Equations - 3 (FS)

Partial differential equations, heat equation, wave equation, Laplace's equation, Fourier series, Fourier transform, method of separations of variable.

Attributes: PS
Prerequisites: MATH 305 Minimum Grade of C

MATH 490A - Topics in Mathematics - 3

490a-h, 1-3 each Topics in Mathematic — Selected topics in specified area of interest. (a) Algebra, (b) Geometry and topology, (c) Analysis, (d) Mathematics education, (e) Logic and foundations, (f) Differential equations, (g) Numerical analysis, (h) Combinatorics and graph theory. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

Registration Consent: Instructor

MATH 490B - Topics in Mathematics - 1 to 3

490a-h, 1-3 each Topics in Mathematic — Selected topics in specified area of interest. (a) Algebra, (b) Geometry and topology, (c) Analysis, (d) Mathematics education, (e) Logic and foundations, (f) Differential equations, (g) Numerical analysis, (h) Combinatorics and graph theory. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

Registration Consent: Instructor

MATH 490C - Topics in Mathematics - 1 to 3 (S)

490a-h, 1-3 each Topics in Mathematic — Selected topics in specified area of interest. (a) Algebra, (b) Geometry and topology, (c) Analysis, (d) Mathematics education, (e) Logic and foundations, (f) Differential equations, (g) Numerical analysis, (h) Combinatorics and graph theory. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

Registration Consent: Instructor

MATH 490D - Topics in Mathematics - 1 to 3

490a-h, 1-3 each Topics in Mathematic — Selected topics in specified area of interest. (a) Algebra, (b) Geometry and topology, (c) Analysis, (d) Mathematics education, (e) Logic and foundations, (f) Differential equations, (g) Numerical analysis, (h) Combinatorics and graph theory. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

Registration Consent: Instructor

MATH 490E - Topics in Mathematics - 1 to 3

490a-h, 1-3 each Topics in Mathematic — Selected topics in specified area of interest. (a) Algebra, (b) Geometry and topology, (c) Analysis, (d) Mathematics education, (e) Logic and foundations, (f) Differential equations, (g) Numerical analysis, (h) Combinatorics and graph theory. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

Registration Consent: Instructor

MATH 490F - Topics in Mathematics - 1 to 3

490a-h, 1-3 each Topics in Mathematic — Selected topics in specified area of interest. (a) Algebra, (b) Geometry and topology, (c) Analysis, (d) Mathematics education, (e) Logic and foundations, (f) Differential equations, (g) Numerical analysis, (h) Combinatorics and graph theory. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

Registration Consent: Instructor

MATH 490G - Topics in Mathematics - 1 to 3

490a-h, 1-3 each Topics in Mathematic — Selected topics in specified area of interest. (a) Algebra, (b) Geometry and topology, (c) Analysis, (d) Mathematics education, (e) Logic and foundations, (f) Differential equations, (g) Numerical analysis, (h) Combinatorics and graph theory. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

Registration Consent: Instructor

MATH 490H - Topics in Mathematics - 1 to 3

490a-h, 1-3 each Topics in Mathematic — Selected topics in specified area of interest. (a) Algebra, (b)

Geometry and topology, (c) Analysis, (d) Mathematics education, (e) Logic and foundations, (f) Differential equations, (g) Numerical analysis, (h) Combinatorics and graph theory. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

Registration Consent: Instructor

MATH 495A - Independent Study: Algebra - 1 to 3

Research and reading in specified area of interest. Algebra. May be repeated to a maximum of 9 hours so long as no topic is repeated and not more than 3 hours are accumulated in neither a single segment nor more than 6 in one semester. Requires written consent of adviser and instructor.

Attributes: PS
Registration Consent: Instructor and Advisor

MATH 495B - Independent Study: Geometry - 1 to 3

Research and reading in specified area of interest. Geometry. May be repeated to a maximum of 9 hours so long as no topic is repeated and not more than 3 hours are accumulated in neither a single segment nor more than 6 in one semester. Requires written consent of adviser and instructor.

Attributes: PS
Registration Consent: Instructor and Advisor

MATH 495C - Independent Study: Analysis - 1 to 3

Research and reading in specified area of interest. Analysis. May be repeated to a maximum of 9 hours so long as no topic is repeated and not more than 3 hours are accumulated in neither a single segment nor more than 6 in one semester. Requires written consent of adviser and instructor.

Attributes: PS
Registration Consent: Instructor and Advisor

MATH 495D - Independent Study: Mathematics Education - 1 to 3

Research and reading in specified area of interest. Mathematics education. May be repeated to a maximum of 9 hours so long as no topic is repeated and not more than 3 hours are accumulated in neither a single segment nor more than 6 in one semester. Requires written consent of adviser.

Attributes: PS
Registration Consent: Advisor

MATH 495E - Independent Study: Logic & Foundations - 1 to 3

Research and reading in specified area of interest. Logic & foundations. May be repeated to a max of 9 hours so long as no topic is repeated and not more than 3 hours are accumulated in neither a single segment nor more than 6 in one semester. Requires written consent of adviser and instructor.

Attributes: PS
Registration Consent: Instructor and Advisor

MATH 495F - Independent Study: Topology - 1 to 3

Research and reading in specified area of interest. Topology. May be repeated to a maximum of 9 hours so long as no topic is repeated and not more than 3 hours are accumulated in neither a single segment nor more than 6 in one semester. Requires written consent of adviser and instructor.

Attributes: PS
Registration Consent: Instructor and Advisor

MATH 495G - Independent Study: Numerical Analysis - 1 to 3

Research and reading in specified area of interest. Numerical analysis. May be repeated to a max of 9 hours so long as no topic is repeated and not more than 3 hours are accumulated in neither a single segment nor more than 6 in one semester. Requires written consent of adviser and instructor.

Attributes: PS
Registration Consent: Instructor and Advisor

MATH 501 - Differential Equations & the Fourier Analysis - 3

Brief review of ode. Legendre and Bessel functions. Fourier series, integrals, and transforms. Wave equation and Laplace equation. Not for MATH

majors.

Prerequisites: MATH 250 Minimum Grade of C AND MATH 305 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 502 - Advanced Calculus For Engineers - 3 (S)

Review of vector calculus, Green's theorem, Gauss' theorem, and Stokes' theorem. Complex analysis up to contour integrals and residue theorem. Not for math majors.

Prerequisites: MATH 250 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 520 - Topics in Algebra - 3 (aF)

Advanced topics in algebra. Groups: Sylow theorems and simple groups. Fields: automorphisms and elementary Galois theory. Rings: noncommutative rings and Dedekind domains. Content may vary from year to year. May be repeated to a maximum of 9 hours provided no topic is repeated. Requires written consent of adviser and instructor.

Prerequisites: MATH 420 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 531 - Algebraic Content, Connections, and Best Practices - 3

A focused look at algebraic content, best practices in pedagogy, and connections to other areas. Prerequisite: Math 250 or consent of instructor. Within the Department of Mathematics and Statistics credit can only be earned for the Post Secondary Mathematics option.

Prerequisites: MATH 250 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

MATH 532 - Geometric Content, Connections, and Best Practices - 3

A focused look at geometric content, best practices in pedagogy, and connections to other areas. Prerequisite: MATH 250 or consent of instructor. Within the Department of Mathematics and Statistics credit can only be earned for the Post Secondary Mathematics option.

Prerequisites: MATH 250 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

MATH 533 - Discrete Matematics Content, Connections, and Best Practices - 3

A focused look at discrete mathematics content, best practices in pedagogy, and connections to other areas. Prerequisite: MATH 250 or consent of instructor. Within the Department of Mathematics and Statistics credit can only be earned for the Post Secondary Mathematics option.

Prerequisites: MATH 250 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

MATH 534 - Calculus Content, Connections, and Best Practices - 3

A focused look at calculus content including limits, differentiation, integration, and series, best practices in pedagogy, and connections to other areas. Within the Department of mathematics and Statistics credit can only be earned for the Postsecondary mathematics Education specialization.

Prerequisites: MATH 350 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

MATH 545 - Real Analysis II - 3

Riemann, Riemann-Stieltjes, and Lebesque integrals; differentiation of functions of n variables; multiple integrals; measure and probability; and differential for forms and Stokes' theorem.

Prerequisites: MATH 321 Minimum Grade of C AND MATH 450 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 550 - Topics in Analysis - 3

Advanced topics in analysis. Metric and topological spaces; completeness; compactness; correctedness; Hilbert and Banach spaces; measure theory and integration; and probability theory. May be repeated to a maximum of 9 hours provided no topic is repeated.

Prerequisites: MATH 545 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 551 - Topics in Complex Analysis - 3

Riemann mapping theorem; analytic continuation; and theorems of Weierstrass and Mittag-Leffler. Content may vary from year to year. May be repeated to a maximum of 6 hours provided no topic is repeated.

Prerequisites: MATH 451 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 552 - Theory of Ordinary Differential Equations - 3

Existence and uniqueness theorem; dynamical systems; stability, bifurcation theory, and boundary value problems.

Prerequisites: MATH 350 Minimum Grade of C AND MATH 421 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 555 - Functional Analysis with Applications - 3

Normed and Banach spaces; inner product and Hilbert spaces; open mapping and closed graph theorem; Hahn-Banach theorem; dual spaces; and weak topology.

Prerequisites: MATH 421 Minimum Grade of C AND MATH 450 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 563 - Optimal Control Theory - 3

Description of system and evaluation of its performance; dynamic programming; calculus of variations and Pontryagin's minimum principle; iterative numerical techniques. [Same as ECE 563 and ME 563]

Prerequisites: MATH 305 Minimum Grade of C OR ME 450 Minimum Grade of C OR ECE 365 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 565 - Advanced Numerical Analysis - 3

Rigorous treatment of topics in numerical analysis, including function approximation; and numerical solution to ordinary and partial differential equations. Convergence and stability of finite difference methods.

Prerequisites: MATH 350 Minimum Grade of C AND MATH 462 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 567 - Topics in Applied Mathematical Analysis - 3

Topics from the following areas: Fourier theory and applications; applied functional analysis; asymptotic analysis; perturbation theory; control theory; theory of equilibrium; and partial differential equations. May be repeated to a maximum of 12 hours provided no topic is repeated.

Prerequisites: MATH 421 Minimum Grade of C AND MATH 450 Minimum Grade of C AND MATH 451 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MATH 590A - Seminar: Algebra - 1 to 3

Intensive study of selected mathematical topics. Algebra. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated. Requires written consent of advisor and instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

MATH 590B - Seminar: Geometry - 1 to 3

Geometry. Each segment may be repeated to a

maximum of 6 hours so long as no topic is repeated. Requires written consent of advisor and instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

MATH 590C - Seminar: Analysis - 1 to 3

Analysis. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated. Requires written consent of advisor and instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

MATH 590D - Seminar: Mathematics Education - 1 to 3 (M)

Mathematics education. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated. Requires written consent of advisor and instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

MATH 590E - Seminar: Logic & Foundations - 1 to 3

Logic and foundations. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated. Requires written consent of advisor and instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

MATH 590F - Seminar: Topology - 1 to 3

Topology. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated. Requires written consent of advisor and instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

MATH 590G - Seminar Numerical Analysis - 1 to 3

Numerical analysis. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated. Requires written consent of advisor and instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

MATH 595A - Special Project: Algebra - 1 to 3 (S)

Intensive study that may be used to satisfy research paper requirements for M.S. degree in mathematics. May be repeated to a maximum of 7 hours. Requires written consent of research advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MATH 595B - Special Project: Geometry - 1 to 3

Intensive study that may be used to satisfy research paper requirements for M.S. degree in mathematics. Geometry. May be repeated to a maximum of 7 hours. Requires written consent of research advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MATH 595C - Special Project: Analysis - 1 to 3

Intensive study that may be used to satisfy research paper requirements for M.S. degree in mathematics. Analysis. May be repeated to a maximum of 7 hrs. Requires written consent of research advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MATH 595D - Special Project: Mathematics Education - 1 to 3 (S)

Intensive study that may be used to satisfy research paper requirements for M.S. degree in mathematics. Mathematics education. May be repeated to a maximum of 7 hours. Requires written consent of research advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Registration Consent: Advisor

MATH 595E - Special Project: Logic & Foundations - 1 to 3

Intensive study that may be used to satisfy research paper requirements for M.S. degree in mathematics. Logic and foundations. May be repeated to a maximum of 7 hours. Requires written consent of research advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MATH 595F - Special Project: Topology - 1 to 3

Intensive study that may be used to satisfy research paper requirements for M.S. degree in mathematics. Numerical analysis. May be repeated to a maximum of 7 hours. Requires written consent of research advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MATH 595G - Special Project: Numerical Analysis - 1 to 3 (S)

Intensive study that may be used to satisfy research paper requirements for M.S. degree in mathematics. Numerical analysis. May be repeated to a maximum of 7 hours. Requires written consent of research advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MATH 599 - Thesis - 1 to 6 (S)

Directed research to satisfy thesis requirement. May be repeated to a maximum of 6 hours. Requires written consent of thesis advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

Master of Business Admin (MBA)

MBA 521 - Quantitative Analysis - 3 (FMS)

Problem solving and fundamental quantitative methods to formulate and solve problems to support business decision making. Analysis of complex situations and communication of results.

Restrictions: Must be enrolled in one of the following Levels: Graduate

MBA 522 - Decision Making in Organizations - 3 (FMS)

Examines the individual and group level dynamics of decision making focusing on non-quantitative issues surrounding managerial decisions and ethical dilemmas. Must be taken in the first 12 hours of MBA program.

Restrictions: Must be enrolled in one of the following Levels: Graduate

MBA 523 - Negotiation and Interpersonal Skills for Managers - 3 (F)

Within the framework of negotiation, this course is designed to develop individual skills needed to manage effectively including: conflict management, negotiation, and crisis/change management.

Prerequisites: Graduate level MBA 522 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

MBA 531 - External Environment of Business - 3

Analysis of the external environment in which business functions. Focus on ethical, social, legal, and economic environments as they affect managerial responsibility and organizational performance.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MBA 533 - Leadership, Influence & Managerial Effectiveness - 3 (M)

Focus on diagnostic, conceptual, analytic and interpersonal competencies needed in leadership roles; power, politics and influence in organizations; corporate culture and leadership style; and leadership and ethical decision-making.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MBA 534 - Strategic Management - 3 (FMS)

Analysis, formulation, and implementation of firm's strategy studied from a general management perspective. Interrelationships between the firm and its external environment are emphasized.

Prerequisites: Graduate level MBA 521 Minimum Grade of C AND Graduate level MBA 522 Minimum Grade of C AND Graduate level ACCT 524 Minimum Grade of C AND Graduate level MKTG 525 Minimum Grade of C AND Graduate level CMIS 526 Minimum Grade of C AND Graduate level FIN 527 Minimum Grade of C AND Graduate level ECON 528 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MBA 595 - Contemporary Issues in Business - 1 to 3

Seminar focusing on interdisciplinary issues in business; emphasis is on contemporary issues facing practicing business professionals that cut across traditional disciplinary boundaries. May be repeated for a total of 6 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Instructor

Mass Communications (MC)

MC 401 - Media Law and Policy - 3 (FMS)

U.S. Constitution and federal and state law related to mass media. Congressional and public policy. Research paper/case study required.

Attributes: HUM

MC 402 - Media Management - 3 (FS)

Focus on product development and project management in media industries. Connects current media production research with contemporary management practices. Research paper required.

Attributes: HUM

MC 403 - Cultural Studies in Media - 3 (FMS)

Use of critical theory to examine media's impact on society and culture. Attention paid to race, class, gender and sexuality. Prerequisite: upper-class standing.

Attributes: HUM

MC 421 - Advertising Campaigns - 3

Creation and production of advertising campaigns using a mix of media.

Attributes: HUM
Prerequisites: MC 326 Minimum Grade of C OR MC 334 Minimum Grade of C

MC 422 - Strategic Media Writing - 3 (S)

Analyzing, writing, and presenting various forms of corporate communications for an assortment of media and audiences.

Attributes: HUM
Prerequisites: MC 202 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Mass Communications,Mass. Comm. - Media Literacy

MC 423A - Advanced Topics in Writing for Media: Dramatic Writing - 3

Advanced theory and practice of writing for the print and visual media. Dramatic writing.

Attributes: HUM

MC 423B - Advanced Topics in Writing for Media: Other Topics - 3

Advanced theory and practice of writing for the print and visual media. Other topics.

Attributes: HUM

MC 424 - Literary Journalism - 3 (S)

Students develop skills in literary non-fiction writing. Includes reading works by both historically important and contemporary writers in this genre.

Attributes: HUM
Prerequisites: MC 202 Minimum Grade of C (concurrency allowed)

MC 427 - Social Media Analytics - 3

This course focuses on the use of analytics, including AI-powered tools, to evaluate and improve social media performance. Students learn to collect, analyze, and interpret data from multiple platforms using machine learning for pattern recognition and predictive analytics.

Attributes: BICS

MC 433 - Advanced Video Directing and Producing - 3 (FS)

Advanced theory and practice in television directing and producing. Students work as senior producers for the cable program SIUE Global Village, plus other assignments.

Attributes: HUM
Prerequisites: MC 333 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

MC 435 - Media Post-Production - 3

Theory and practice of post-production including: video editing, sound design, color grading and motion graphics.

Prerequisites: MC 204 Minimum Grade of C (concurrency allowed)

MC 440 - Visual Media Analysis - 3 (FS)

Analysis of still and moving images for artistic and communicative purposes. Values, languages, philosophies, styles and standards based on artistic visions, audience expectations, and distribution constraints.

Attributes: HUM

MC 441 - Advanced Writing and Designing for Digital Media - 3 (F)

A project-based course which provides a comprehensive overview of both writing and designing for digital media. Students learn popular, industry-leading multimedia authoring tools.

Attributes: HUM
Prerequisites: MC 327 Minimum Grade of C

MC 443 - Narrative Media Production - 3 (S)

Write and produce short narrative films and web series.

Prerequisites: MC 204 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Mass Communications,Mass. Comm. - Media Literacy

MC 449 - Media Psychology - 3 (S)

Media's short term and long term psychological effects; socialization of children and adults; persuasion and social perception in politics, health communication, and consumer behavior.

Attributes: BSS
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

MC 451 - Research Methods in Mass Media - 3 (FS)

Examination of traditional and emerging concepts of research. Extensive use of research instruments, evaluation and special applications to mass media. Individual and group research projects required.

Attributes: SS
Restrictions: Must be enrolled in one of the following Majors: Mass Communications,Mass. Comm. - Media Literacy

MC 452 - New Media and Technology - 3

Technological changes in the mass media. New media forms; audience fragmentation; and economic, regulatory, and social issues. Patters of adoption and diffusion.

Attributes: HUM

MC 453 - Transnational Media - 3 (S)

Focus on media ownership, content flow, cultural values, political power, and technological impact in history industrialization, economics and current processes of globalization.

Attributes: BSS, EGC, EREG, EUSC

MC 454 - Documentary Media Production - 3 (F)

Evolution of documentary filmmaking; emphasis on student production of original documentary films.

Attributes: HUM
Prerequisites: MC 204 Minimum Grade of C AND (MC 332 Minimum Grade of C OR MC 333 Minimum Grade of C OR MC 334 Minimum Grade of C OR MC 431 Minimum Grade of C)

MC 455 - Media Ethics - 3 (FMS)

Critical examination and analysis of main values, issues, and arguments associated with media functions, performance, business practices, and public perceptions of the media.

Attributes: BHUM

MC 456 - Identity and Emerging Media - 3 (FMS)

Students explore how people construct identities on various emerging media—Twitter, Snapchat, Instagram and YouTube. Students read academic sources and engage in podcast, videocast or animation projects.

Attributes: BHUM, EUSC
Prerequisites: ENG 101 Minimum Grade of C or ENG 102 Minimum Grade of C or admission to the Media Studies graduate program (GM).

MC 471 - Special Topics in Mass Media - 3 (FMS)

Special and advanced topics in the mass media. Topics to be announced. May be repeated to a maximum of 9 hours provided no topic is repeated.

Attributes: HUM

MC 472 - Mass Media and Health - 3 (MS)

Focuses on media literacy in the area of health, ethics related to media health content, the influence media have on health behavior and health policy.

Attributes: BSS, EH

MC 475 - Advanced Mobile Media Design - 3 (M)

A project-based course which introduces students to concepts and techniques in designing advanced mobile-based interactive multimedia applications.

Attributes: HUM
Prerequisites: MC 441 Minimum Grade of C.

MC 478 - International Advertising - 3

The course introduces and discusses issues that affect advertising and communications in a global marketplace.

Attributes: EGC

MC 491 - Advanced Practices - 3

Independent study in areas which student has completed all formal course work. Included are studies in news, advertising, writing, announcing, and production-direction. May be repeated to a maximum of 6 hours. Requires consent of instructor.

Registration Consent: Instructor

MC 495 - Readings in Mass Media - 1 to 4

Selected readings in depth with member of faculty. Contemporary books and periodicals. May be repeated to a maximum of 4 hours. Requires consent of instructor.

Registration Consent: Instructor

MC 500 - Mass Communication Theory - 3 (F)

Interrelationships of mass communications institutions in society. Government, marketing, management, audience, and research. Technological realities and future development. Characteristics of various media and places in communication process.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MC 501 - Research Methods for Mass Communications - 3 (F)

Research methods and methodology for mass media and the social sciences. Methodologies include quantitative, qualitative, legal, historical and multi-method.

Restrictions: Must be enrolled in one of the following Majors: Mass Communications,Media

Studies,Mass. Comm. - Media Literacy, May not be enrolled as the following Levels: Undergraduate

MC 502 - Media Campaigns - 3 (S)

Seminar on theoretical and practical dimensions of media campaigns; exposure to campaigns and campaign management.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MC 503 - Cultural Studies in Media - 3 (FM)

Analysis of media impact on culture and society through use of critical theory. Research component and major term paper required.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MC 504 - Special Topics in Mass Communications - 3

Varied content. Offered as student need exists and faculty time permits. May be repeated once to a maximum of 6 hours provided no topic is repeated. Requires consent of graduate program advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MC 505 - Propaganda in the Digital Age - 3

Students learn propaganda principles and theories; examine propaganda campaigns; present papers on theoretical and practical dimensions of propaganda; and develop critical skills for further study.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MC 508 - Social Media Analytics - 3

Social media is an ever-evolving landscape full of potential insights. The purpose of this course is to provide a more targeted learning experience for how you can use social media data, primarily text-based data, in various forms of research. This course will introduce students to social media API and analysis using R. These three methods combine to allow researchers to scale analysis to the purpose of the study and the quantity of the data. This course will introduce students to proper techniques to clean, wrangle, and visualize data as part of data analysis.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MC 510 - Data Visualization for Storytelling - 3

This course introduces students to principles, tools, and techniques for exploring data and creating engaging data visualization for storytelling.

Restrictions: Must be enrolled in one of the following Levels: Graduate

MC 520A - Journalism Teachers' Organizational Role - 1

Legal, business and teaching aspects of being an adviser, with an emphasis on improving students' skills. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

MC 520B - Journalism Teachers' Approach to News Gathering - 1

Provides secondary school newspaper advisers and journalism teachers the necessary background to successfully supervise, coach and evaluate their students. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

MC 520C - Journalism Teachers' Approach to Design - 1

Design theory and digital production techniques applicable to student publications. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

MC 520D - Journalism Teachers' Legal, Ethical Roles - 1

Provides secondary school newspaper and journalism teachers the necessary background to successfully supervise, coach, and evaluate their students in law, ethics, and issues. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

MC 590 - Independent Study in Mass Communications - 3 (FS)

Investigation of special topic area. Individual research projects which may include field experience and operations analysis. Requires consent of graduate program advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MC 591 - Professional Internship in Mass Comm - 3

Gain practical, curriculum-related experience in any area of media and communications.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

MC 598 - Final Project - 1 to 6 (S)

Culminating project. Individual approaches to message production for problem resolution. Effectiveness of different media in dealing with problem areas. Requires consent of graduate program advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

MC 599 - Thesis - 1 to 6 (F)

Requires consent of graduate program advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

Mechanical Engineering (ME)

ME 414 - Gas Dynamics - 3 (FS)

Basic equations of compressible flow, and isentropic flow of perfect gas; normal shock waves, and oblique shock waves; flow with friction and heat loss; and applications.

Prerequisites: (ME 315 OR CE 315 Minimum Grade of C) and ME 310 Minimum Grade of C Or Graduate Status (GM)

ME 417 - Heating, Ventilating and Air-Conditioning (HVAC) - 3 (M)

Air-conditioning systems, psychrometrics, indoor air quality, heating and cooling loads, pumps and fans, duct design, refrigeration.

Prerequisites: ME 310 Minimum Grade of C and (ME 315 OR CE 315 Minimum Grade of C), or graduate standing (GM).

ME 418 - Internal Combustion Engines - 3 (FS)

Thermodynamics of internal combustion engine cycles; gasoline and diesel engines; engine design considerations; engine heat release; fuel-air and combustion; and valves and heat losses.

Prerequisites: ME 410 Minimum Grade of C (concurrency allowed) AND ME 312 Minimum Grade of C

ME 419 - Gas Turbines - 3 (MS)

Quasi-one-dimensional compressible flow; ideal and non-ideal gas turbine cycles, gas turbines for power, turbojet, and turbofan; component performance; engine off-design performance; and engine design considerations.

Prerequisites: ME 312 Minimum Grade of C AND (ME 315 OR CE 315 Minimum Grade of C)

ME 432 - Vehicle Dynamics and Technology - 3 (F)

One dimensional dynamics of a vehicle, acceleration performance, braking performance, powertrain, tire

mechanism, steering mechanism, low and high speed cornering, and suspension system. Prerequisite: ME 350 or MRE 358 with a minimum grade of C in each course, or graduate standing.

Prerequisites: ME 350 Minimum Grade of C or MRE 358 Minimum Grade of C or Graduate Status (GM).

ME 433 - Fuzzy Logic and Applications - 3

Fundamentals of fuzzy sets, basic operations, fuzzy arithmetic, and fuzzy systems. Examples of applications in various fields of engineering and science. Requires consent of instructor. Same as ECE 433.

Registration Consent: Instructor

ME 442 - Microelectromechanical Systems - 3

Fundamental science, design, and fabrication of MEMS and microsystems, scaling laws, MEMS flexures, capacitive, piezoelectric, piezoresistive, and thermal sensing and actuation.

Prerequisites: (ME 315 OR CE 315 Minimum Grade of C) AND ME 356 Minimum Grade of C AND ME 370 Minimum Grade of C AND ME 380 Minimum Grade of C, or Graduate standing.

ME 450 - Automatic Control - 3 (FS)

Modeling of dynamical systems, linearizations, stability, and feedback control; Routh-Hurwitz Criteria, time domain and frequency domain response; Root Locus; and feedback compensator design.

Prerequisites: ME 356 Minimum Grade of C; or Graduate Status (GM)

ME 452 - Vibrations - 3 (M)

Vibration of single and multi-degree of freedom systems; natural frequencies and modes; and vibration isolation. Structural response to ground excitation.

Prerequisites: ME 262 Minimum Grade of C and MATH 305 Minimum Grade of C and CE 242 Minimum Grade of C; or Graduate Status (GM)

ME 454 - Robotics-Dynamics and Control - 3 (F)

(Same as ECE 467 and MRE 454) Robotics, robot kinematics and inverse kinematics, trajectory planning, differential motion and virtual work principle, dynamics and control. Prerequisite: Consent of instructor.

Registration Consent: Instructor

ME 458 - Mechatronics - 3

Dynamics response; fundamentals of electronic and logic circuits; sensors and instrumentation for strains, movements and fluid flow; actuators and power transmission devices; and feedback control. Two hours lecture and one laboratory session per week.

Prerequisites: ME 356 Minimum Grade of C; or Graduate Status (GM)

ME 460 - Nondestructive Evaluation Methods - 3

Nondestructive evaluations methods for engineering materials. Ultrasonic inspection for defect detection, weld inspection plus methods of dye penetrate. Acoustic emissions and eddy currents are studied. C/l with CE 461.

ME 462 - Robotic Vision - 3 (S)

Learn fundamentals of computer vision including image formation and analyses. Apply robotics, computer vision, and control in solving problems of mobile and arm-type robots.

Prerequisites: MATH 321 Minimum Grade of C, or Graduate Standing (GM).

ME 466 - Digital Control - 3

Topics include finite difference equations, z-transforms, and state variable representation; and analysis and synthesis of linear sampled-data control systems using classical and modern control theory. Prerequisite: ME 450 with a C or better or ECE 365 with a C or better or graduate standing.

Prerequisites: ME 450 Minimum Grade of C or ECE 365 Minimum Grade of C; or Graduate Status (GM)

ME 470 - Stress Analysis and Design - 3 (F)

Three dimensional torsion and bending; stress and strain transformations; yield criteria and plasticity theory; finite element method; and case studies and engineering design.

Prerequisites: ME 370 Minimum Grade of C (concurrency allowed) and CE 242 Minimum Grade of C; or Graduate Status (GM)

ME 530 - Advanced Dynamics - 3 (S)

Kinematics and dynamics of particles in three dimensions; virtual work principle; nonholonomic constraints; Lagrange's equations; and three-dimensional rigid body kinematics and dynamics.

Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 532 - Advanced Mechanisms and Synthesis - 3

Kinematics of two- and three-dimensional mechanisms. Synthesis of four and six bar mechanisms using three or more precision points. Balancing of rotating mechanisms. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 540 - Continuum Mechanics - 3 (M)

Equations for continuous media for both solid and fluid systems. General equations of motion including equilibrium, compatibility, and boundary conditions. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 544 - Theory of Elasticity - 3 (F)

Elastic equations and boundary conditions. Variational development of equations. Solutions for stress around a hole and beams on an elastic foundation. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 545 - Fracture Mechanics and Plasticity - 3

Fracture mechanics and plasticity theories for various materials. Finite Element coding of various plasticity theories. Prerequisites: consent of instructor.

Restrictions: Must be enrolled in one of the following Levels: Graduate

ME 546 - Plates and Shells - 3

Membrane theory of shells. Bending of shells, as well as, circular and rectangular plates. Indeterminate shell problems. Prerequisites: CE 445, ME 470 or consent of instructor. Same as CE 546.

Prerequisites: CE 445 AND ME 470
Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 547 - Elastic Stability - 3

Elastic stability of columns and simple frames. Lateral and torsional buckling of beams. Buckling of plates. Design code considerations of buckling. Prerequisites: CE 445, ME 470 or consent of instructor. Same as CE 547.

Prerequisites: CE 445 AND ME 470
Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 548 - Finite Elements - 3 (S)

Rayleigh-Ritz method; piecewise approximation; modal load calculation; derivation of two- and three-dimensional elements; and bending elements. Finite element computer programs. Practice with actual programs. Prerequisites: CE 445, ME 470 or consent of instructor. Same as CE 548.

Prerequisites: CE 445 AND ME 470
Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 550 - Modern Control - 3 (F)

Analysis and design of control systems; state-variable description; controllability, observability, non-linearity, and perturbation theory; stability, state feedback design, and robust control.

Prerequisite: ME 450

Prerequisites: (ME 450 OR Graduate level ME 450) OR (ECE 465 OR Graduate level ECE 465)
Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 551 - Nonlinear Control - 3

Lyapunov theory. Phase plane analysis. Feedback linearization. Describing function analysis. Sliding mode control. Introduction to adaptive control. Prerequisite: ME 450 with a minimum grade of C or approval of the instructor

Prerequisites: ME 450 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

ME 560 - Advanced Vibration With Applications - 3

Lagrange equations; vibration of continuous systems; finite elements; component-mode synthesis and other approximation methods; and introduction to random and nonlinear vibration. Prerequisites: ME 452 or equivalent

Prerequisites: ME 452
Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 562 - Discontinuous Dynamical Systems - 3

Discontinuous Dynamical Systems. 3 credits. Discontinuous dynamical systems, accessible and inaccessible domains, flow switchability and singularity at the boundary, bifurcation, flows and motion complexity. Prerequisites: ME 530 with B or better, Math 501 with C or better, or consent of Instructor.

Prerequisites: Graduate level ME 530 Minimum Grade of B OR Graduate level MATH 501 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 563 - Optimal Control - 3

Description of system and evaluation of its performance; dynamic programming; calculus of variations and Pontryagin''s minimum principle; and interactive numerical techniques. Prerequisite: ME 450 or ECE 365 Same as ECE 563.

Prerequisites: ME 450 OR ECE 365
Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 573 - Advanced Thermodynamics - 3

Fundamental concepts; thermodynamic relations; entropy and exergy analysis; thermodynamic optimization and design. Power generation, refrigeration, and advanced cycles for engineering systems. Requires instructor approval.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 575 - Advanced Fluid Mechanics - 3 (S)

Incompressible fluids; potential flows; solution of Navier-Stokes equations; low and high Reynolds number flows; laminar and turbulent boundary layers. Prerequisite: ME 315

Prerequisites: ME 315
Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 576 - Turbulent Flow - 3

Reynolds averaged Navier-Stokes equations(RANS), turbulent energy transport; Closure issues and modeling; Turbulent statistics and applications; large eddy simulation(LES) and direct numerical simulation(DNS) and CFD considerations.

Restrictions: Must be enrolled in one of the following Majors: Mechanical Engineering, May not be enrolled as the following Levels: Undergraduate

ME 580 - Computational Fluid Dynamics - 3 (F)

Model equations; finite differences an finite volume methods; diffusion problems; convection-diffusion problems; solution algorithm; unsteady flows; and turbulence modeling.

Prerequisites: ME 410 AND CS 145
Restrictions: May not be enrolled as the following Levels: Undergraduate

ME 582 - Microfluidics and Nanofluidics - 3

Unidirectional flow, passive scalar transport, Stokes flow, potential flow, species and charge transport, Zeta potential, Poisson–Boltzmann equations, Nernst–Planck equations, electrokinetics, electrophoresis, dielectrophoresis, magnetophoresis.

Prerequisites: ME 315 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

ME 585 - Convective Heat Transfer - 3

Conservation principles for mass, momentum, and energy; differential equations of laminar and turbulent boundary layers; and forced and natural convections. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 587 - Advanced Thermal-Fluid Measurements - 3

Experimental uncertainty analysis, similitude and dimensional analysis; temperature standard and sensors; presure and flow rate measurements; turbulent measurements with hot wire anemometry and particle image velocimetry.

Prerequisites: ME 487
Restrictions: Must be enrolled in one of the following Majors: Mechanical Engineering, May not be enrolled as the following Levels: Undergraduate

ME 588 - Equilibrium Dynamics - 3

Energy exchanges with emphasis on conservation laws. Conditions for equilibrium and consequences of energy exchanges are included using the methodology of classical thermodynamics. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 589 - Radiation Heat Transfer - 3

Radiation from a blackbody; properties of nonblack surfaces; radiative properties of real materials; radiation in enclosures; and radiative behavior of windows and semi-transparent solids. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 591 - Independent Study - 1 to 4

Individual investigation of a topic in mechanical engineering to be agreed upon with the instructor. May be repeated for a maximum of 6 hours provided no topic is repeated. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 592 - Topics in Mechanical Engineering - 1 to 5 (S)

Topic of special interest; course schedule will include name of topic. May be repeated to a maximum of 9 hours provided no topic is repeated. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

ME 598 - Research Project - 3 (FS)

This course is intended for non-thesis master's students to write a report based on a research project. Students work with a faculty advisor and defend their research project to a committee upon completion of their study.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Dept Chair

ME 599 - Thesis - 1 to 6 (FMS)

May be repeated to a maximum of 6 hours. Requires consent of advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

Management (MGMT)

MGMT 430 - Human Resource Management - 3 (FMS)

Theory, practice and trends in effective utilization of human resources in organizations.

Prerequisites: MGMT 330 and MGMT 331.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MGMT 431 - Recruiting, Selecting and Hiring Employees - 3 (FM)

Principles, practices and issues relevant to staffing work organizations. Topics include employee recruitment approaches; selection procedure development; work force headcount planning; and equal employment regulations.

Prerequisites: MGMT 430
Restrictions: Must be enrolled in one of the following Colleges: School of Business

MGMT 432 - Training and Developing Employees - 3 (S)

Principles, practices and factors that contribute to employees' job competence, performance, growth, and contribution to organizational performance. Topics include training assessment, development, and delivery.

Prerequisites: MGMT 430
Restrictions: Must be enrolled in one of the following Colleges: School of Business

MGMT 433 - Performance Management and Compensation - 3 (S)

This course focuses on the importance of performance management in the workplace, including performance assessment, compensation and workplace safety, along with performance in union environments.

Prerequisites: MGMT 430
Restrictions: Must be enrolled in one of the following Colleges: School of Business

MGMT 451 - Managing Organizational Change and Innovation - 3 (FS)

Study of organizational change with emphasis on diagnostic skills necessary for effective management of planned organizational change. Individual and group leadership approaches to increase effectiveness.

Prerequisites: MGMT 341 OR (MGMT 330 AND MGMT 331)
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MGMT 461 - Managing in the Global Economy/International Management - 3 (FS)

Management of business in other countries and in global economy. Interaction of political, cultural, social, legal, and economic forces in international business context.

Attributes: EGC
Prerequisites: MGMT 341 OR (MGMT 330 AND MGMT 331)
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MGMT 485 - Managing Quality and Performance - 3 (S)

Current topics in management, with special emphasis on designs, programs and techniques for managing quality and performance improvements. Advanced readings and cases on innovative business practices.

Prerequisites: MGMT 341 OR (MGMT 330 AND MGMT 331)
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MGMT 495 - Special Topics in Management - 3 (FS)

Advanced and specialized topics of current concern to field of management. May be repeated up to a maximum of 6 hours provided no topic is repeated. Requires consent of instructor.

Prerequisites: MGMT 341 OR (MGMT 330 AND MGMT 331)
Restrictions: Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Instructor

MGMT 541 - Health Care Law - 3 (F)

Patient rights, provider rights and the legal implications of the denial of treatment. Examination of current case law and the U.S. health care system.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 551 - Managing Organizational Change & Innovation - 3 (S)

Knowledge and skills of organizational change with emphasis on diagnostic skills necessary for effective management of planned organizational change. Individual and group leadership approaches.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 558 - Cyberlaw - 3

Addresses legal issues presented by cyberspace and related technology. Students learn legal issues, law, and application of law by case method.

Prerequisites: Graduate level MBA 522 Minimum Grade of C OR ACCT 340
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 561 - International Business - 3

Management of business in other countries and in global economy. Interaction of political, cultural, social, legal and economic forces in international business context.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 562 - Competing in Emerging Markets - 3 (S)

This course examines the business environment and competitive strategies in emerging economies that experience fast economic growth but have underdeveloped institutional and market infrastructures.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 570 - Seminar in Human Resource Management - 3 (F)

Theory and practice of human resource management. Balanced attention on strategic use of HR in organizations and HR tools to achieve effectiveness and efficiency.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 575 - Entrepreneurship and Innovation - 3

Explores the strategic management of entrepreneurial ventures, enabling students to identify opportunities, analyze industry and technology trends, and devise strategies to capitalize on them.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C AND Graduate level FIN 527 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 580 - Employment Law For Managers - 3

Selected areas impacting business managers. Topics include affirmative action; drugs; safety; and discrimination based on sex, race, pregnancy and age.

Prerequisites: Graduate level MBA 522 Minimum

Grade of C OR ACCT 340
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 595 - Seminar in Management - 3 (S)

Interpretations and discussions of current developments in management. Topics vary with faculty interest and changes in the field. Emphasis on analysis of current developments.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MGMT 597 - Independent Study in Management - 1 to 3

Investigation of focused, topical areas. Individual or small group projects. May be repeated to a maximum of 3 hours. Prerequisite: Detailed proposal approved by supervising faculty member and chair. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Dept Chair-Program Director

Marketing (MKTG)

MKTG 465 - Social and Nonprofit Marketing - 3

This course presents marketing principles from the Nonprofit perspective and includes coverage of for-profit social and cause marketing strategies.

Prerequisites: MKTG 300.

MKTG 466 - Digital Marketing - 3 (S)

Focus on marketing issues surrounding commercialization of world wide web and other emerging electronic media. Examines impact of digital technology on strategic marketing planning.

Prerequisites: MKTG 300.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MKTG 470 - Sport Marketing - 3 (S)

Sport marketing mix decisions from perspective of organizations that offer sports-related products and those that use sport to promote other products and services. Requires completion of stated prerequisite or consent of instructor.

Prerequisites: MKTG 300.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MKTG 471 - Advertising Policy & Management - 3 (F)

Strategic role of persuasive communication. Concepts and methods necessary to develop advertising programs. Advertising planning and budgeting in the context of achieving marketing objectives.

Prerequisites: MKTG 300.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MKTG 472 - Sales Policy & Management - 3 (F)

Organization and operational functions of salespeople and sales managers. Selling skills; forecasting; recruiting; selection; training; territory design and assignment; supervision; compensation; motivation; and performance appraisal.

Prerequisites: MKTG 300.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MKTG 474 - Retail Policy & Mgmt - 3 (S)

Functions, organization, and management of retail enterprises. Impact of recent and contemporary

forces. Systems for merchandising and promotional activities. Retailing careers and appropriate preparation.

Prerequisites: MKTG 300.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MKTG 475 - Consumer Behavior - 3 (FS)

Consumer motivation, buying behavior, group influence, cultural forces, information processing, and product diffusion. Explanatory theories and product development.

Prerequisites: MKTG 300.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MKTG 476 - International Marketing - 3 (FS)

Impact of tariffs, cultural/social restrictions, economic political environments, and legal restrictions. International distribution pricing; multinational product planning; communications decisions; and international marketing research.

Attributes: EGC
Prerequisites: MKTG 300.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Accountancy,Accountancy,Business Administration,Business Economics and Finance,Computer Management and Info Sys

MKTG 479 - Special Topics in Marketing - 3 (FS)

Contemporary issues/problems in marketing. Topic varies when offered. Examples: service marketing; industrial marketing; non-profit marketing; and other significant topics. May repeat as topic varies.

Prerequisites: MKTG 300.
Restrictions: Must be enrolled in one of the following Colleges: School of Business

MKTG 480 - Advanced Marketing Management - 3 (FS)

Market structure and behavior. Research and select marketing opportunities. Develop marketing strategies. Plan marketing tactics. Implementation and control of marketing efforts.

Prerequisites: MKTG 377 AND Two of the following: MKTG 465, 466, 467, 468, 470, 471, 472, 474, 475, 476, 479, 488
Restrictions: Must be enrolled in one of the following Colleges: School of Business

MKTG 490 - Independent Study in Marketing - 1 to 3

Topical areas in greater depth or unavailable in regular courses. Individual or small group readings and/or research projects. May be repeated to 6 hours by permission. Requires consent of department chair or program director.

Restrictions: Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Dept Chair-Program Director

MKTG 501 - MSMAI Immersion Boot Camp - 1 (FS)

Introduction of common practices and culture of Marketing Insights industry. Overview of MSMAI and SIUE Graduate School. Overview of MS Office and SPSS.

Restrictions: Must be enrolled in one of the following Majors: Marketing Research, Must be enrolled in one of the following Levels: Graduate

MKTG 525 - Marketing Analysis and Applications for Managerial Decision Making - 3 (FMS)

Decision-Oriented overview of marketing management in creating value by analyzing customer responses for designing products, prices, channel and communication strategies for planning marketing effort.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MKTG 530 - Marketing Planning & Strategy - 3 (F)

Analytical tools and decision paradigms for marketing planning and strategy. Emphasizes integration of information, segmentation and elements of marketing plan to achieve competitive advantage.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 532 - Services Marketing - 3

Service systems and service management with emphases in services quality and satisfaction, service strategy, service recovery, marketing differentiation and positioning in services industries.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

MKTG 534 - Advertising Research - 3 (F)

Advertising research using both theory based literature and practical application of current theories of advertising and persuasion.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

MKTG 539 - Marketing Research Advances and Applications - 1.5 (FS)

Speaker series with real world case studies and advances in marketing research.

Restrictions: Must be enrolled in one of the following Majors: Marketing Research, Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 540 - Consumer Insights - 3 (F)

Organizational and consumer behavior models; internal/ external factors influencing choice processes; attitudes, intentions, and information processing; and measurement and research. Applies behavioral theories to marketing decisions.

Prerequisites: Graduate level MKTG 548 or CMIS 566.
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 541 - New Product Design, Development and Management - 3

Theoretical and pragmatic issues for developing new products and services and managing ongoing products and services. Analytical decision making applied to product design, positioning, research, adoption, and diffusion.

Prerequisites: (Graduate level MKTG 525 Minimum Grade of C AND Graduate level MBA 521 Minimum Grade of C) OR MKTG 516 Placement 1
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 542 - Promotion Management - 3 (S)

Communications from marketer to market using advertising, personal selling, publicity, and sales promotion. Managerial analysis strategy programming and evaluation emphasized.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 543 - Channel Management - 3

Development and management of channel and distribution systems in restrictive and dynamic environments. Communication, control, performance, and customer service.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 544 - Introduction to Marketing Analytics and Insights - 3 (S)

Introduction to the marketing research process, and orientation to the use of marketing analytics to develop marketing insights.

Prerequisites: MBA 521 and MKTG 525 with grades of C or better; or Must be enrolled in the MS MAI program
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 545 - Health Care Marketing - 3 (S)

Application of marketing strategies and techniques to health care of organizations. Focus on identifying appropriate client-oriented marketing programs.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 546 - Quantitative Design for Marketing Analytics and Insights - 3 (S)

Quantitative design includes research methods including surveys, experiments, observational, and secondary research designs. Includes development of appropriate research questions and research proposal development.

Prerequisites: Graduate level MKTG 544 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 547 - Qualitative Design for Marketing Analytics and Insights - 3 (S)

Qualitative design includes research methods including in-depth interviews, focus groups, ethnographies, and analytical techniques specific to qualitative data.

Prerequisites: Graduate level MKTG 544 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 548 - Marketing Data Analytics - 3 (M)

Comprehensive and practical considerations of research methodology; data characteristics and processing; multivariate data analysis approaches (statistical considerations and applications); and communication of marketing research results.

Prerequisites: Graduate level MKTG 546 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 549 - Marketing Mix Analytics and Applications - 3

Learn to apply advanced analytical techniques to real world marketing problems including pricing, product, customer, advertising, distribution and sales analytics.

Prerequisites: MKTG 548 with a C or better
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 550 - Marketing Research Project and Strategy - 3 (F)

Integration of all aspects of marketing research into comprehensive plans and course of action. Action planning, design, and execution including client service and management.

Prerequisites: Graduate level MKTG 530 Minimum Grade of C AND Graduate level MKTG 548 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 560 - Special Topics in Marketing Research - 3

Advance issues such as research ethics, promotion research, international research, online data collection and reporting. Depending on topic, instructor's approval may be needed. May be repeated once for a total of 6 hours provided no topic is repeated.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 561 - Database Marketing - 3

Applications of database technology to implementation of marketing strategies. Focus on use of databases in relationship marketing and customer-satisfaction management.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 562 - Syndicated Data Analysis - 3

Identification of the marketing uses of information from syndicated scanner data. Experience with the principle syndicated data technologies and supplies.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 563 - Customer Relationship Management - 3 (FM)

Introduces students to the concepts, methods and applications of Customer Relationship Management. Students will develop an understanding of theoretical underpinnings and practical considerations of customer relationship management.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

MKTG 595 - Seminar in Marketing - 1 to 3

Interpretation and discussion of current developments. Impact and analysis of current issues. May be repeated to a maximum of 6 hours provided no topic is repeated.

Prerequisites: Graduate level MKTG 525 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 597 - Independent Study in Marketing - 1 to 3 (F)

Topical areas in greater depth or unavailable in regular courses. Individual and/or research projects. May be repeated by permission to a maximum of 6 hours. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business
Registration Consent: Dept Chair-Program Director

MKTG 598 - MSMAI Project - 3

This course and its prerequisites are required for the Master of Science in Marketing Analytics and Insights. The purpose of this course is to complete a capstone project, culminating the knowledge acquired in the MSMAI program.

Prerequisites: MKTG 540, 544, 546, 547, 548, 549 with grades of C or better.
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

MKTG 599 - MSMAI Thesis - 3

Capstone experience for MSMAI students. Develop and execute an academic research project in marketing or related discipline including theory development, data collection, analysis and report of findings.

Prerequisites: Graduate level MKTG 540 AND MKTG 544 AND MKTG 546 AND MKTG 547 AND MKTG 548 and MKTG 549 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: School of Business

Mechatronics & Robotics Engr (MRE)

MRE 454 - Robotics Dynamics & Control - 3 (F)

(Same as ECE 467 and ME 454) Robotics, robot kinematics/ inverse kinematics, trajectory planning, differential motion/virtual work principle, dynamics and control. Prerequisites: consent of instructor.

Prerequisites: ME 356 Minimum Grade of C AND MATH 321 Minimum Grade of C.
Registration Consent: Instructor

MRE 462 - Robotic Vision - 3

Learn fundamentals of computer vision including image formation and analyses. Apply robotics, computer vision and control in solving problems of mobile and arm-type robots.

Prerequisites: MATH 321 Minimum Grade of C, or Graduate Standing (GM).

MRE 477 - Computer Integrated Manufacturing Systems - 3 (S)

(Same as IE 477). Application of robot theory integrated with automated manufacturing systems. Emphasis on design laboratory exercises. Prerequisite: IE 470, IE 476, and CS 145, all with a C or better, or consent or instructor, or graduate standing.

Prerequisites: IE 470 Minimum Grade of C and IE 476 Minimum Grade of C and CS 145 Minimum Grade of C, or consent of instructor, or Graduate standing.

Music (MUS)

MUS 400Z - Specific Projects in Music - 0 to 3

Designed for students who will be involved with a specific project: traveling to perform, present, or to develop specific skills related to major.

Restrictions: Must be enrolled in one of the following Majors: Music

MUS 412B - Applied Composition - 3

Original composition. Must be taken in sequence. Weekly seminar required. Senior recital required for 412b. Requires completion of stated prerequisite or instructor permission.

Attributes: BFPA
Prerequisites: MUS 412A Minimum Grade of C.

MUS 415 - Class Applied Voice - 2

Singing, diction, and voice pedagogy for music majors with minimal vocal experience.

Attributes: FPA

MUS 420 - Music Education Practicum - 1

Shop laboratory course. Selection adjustments, maintenance, and repair of musical instruments.

Attributes: FPA

MUS 426A - Adv Mus Thry: Music since 1900 - 2 (aS)

This music theory course will focus on understanding and analyzing music of the modern (post-tonal) era. Learning will involve written, aural, and compositional experiences.

Attributes: FPA
Prerequisites: MUS 326.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

MUS 436 - Jazz Education - 2 (aS)

Teaching jazz at elementary, secondary, and college levels, both group and individual instruction. Requires completion of stated prerequisite or permit required.

Attributes: FPA
Prerequisites: MUS 225B Minimum Grade of C.

MUS 439 - Recording Techniques - 2 (F)

Technical understanding of equipment used in basic digital recording studios: microphones; equalization; mixing; hard disk recording and 24 track recording formats.

Attributes: FPA

MUS 440A - Private Applied Music: Violin - 2 or 4 (FS)

Violin. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be

repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340A Minimum Grade of C.

MUS 440B - Private Applied Music: Viola - 2 or 4

Viola. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentrations in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340B Minimum Grade of C.

MUS 440C - Private Applied Music: Cello - 2 or 4 (FS)

Cello. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340C Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Music

MUS 440D - Private Applied Music: String Bass - 2 or 4 (F)

String bass. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340D Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Music

MUS 440E - Private Applied Music: Flute - 2 or 4 (FS)

Flute. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340E Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Music

MUS 440F - Private Applied Music: Oboe - 2 or 4 (F)

Oboe. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4

hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340F Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Music

MUS 440G - Private Applied Music: Clarinet - 2 or 4 (aF)

Clarinet. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentrations in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340G Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Music

MUS 440H - Private Applied Music: Bassoon - 2 or 4

Bassoon. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340H Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Music

MUS 440I - Private Applied Music: Saxophone - 2 or 4 (F)

Saxophone. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340I Minimum Grade of C.

MUS 440J - Private Applied Music: Percussion - 2 or 4 (FS)

Percussion. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340J Minimum Grade of C.

MUS 440K - Private Applied Music: Piano - 2 or 4 (FS)

Piano. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4

hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340K Minimum Grade of C.

MUS 440L - Private Applied Music: Horn - 2 or 4 (FS)

Horn. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340L Minimum Grade of C.

MUS 440M - Private Applied Music: Trumpet - 2 or 4 (FS)

Trumpet. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340M Minimum Grade of C.

MUS 440N - Private Applied Music: Trombone - 2 or 4 (FS)

Trombone. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340N Minimum Grade of C.

MUS 440O - Private Applied Music: Tuba - 2 or 4 (F)

Tuba. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340O Minimum Grade of C.

MUS 440P - Private Applied Music: Baritone - 2 or 4

Baritone. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

Prerequisites: MUS 340P Minimum Grade of C.

MUS 440Q - Private Applied Music: Voice - 2 or 4 (FS)

Voice. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340Q Minimum Grade of C.

MUS 440R - Private Applied Music: Organ - 2 or 4

Organ. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340R Minimum Grade of C.

MUS 440U - Private Applied Music: Guitar - 2 or 4 (S)

Guitar. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340U Minimum Grade of C.

MUS 440W - Private Applied Music: Conducting - 2 or 4

Conducting. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA
Prerequisites: MUS 340W Minimum Grade of C.

MUS 441D - Private Jazz: Bass - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for two semesters. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor. d. Bass, i. Saxophone, j. Percussion, k. Piano, m. Trumpet, n. Trombone, q. Voice, u. Guitar.

Attributes: FPA
Prerequisites: MUS 341D Minimum Grade of C.

MUS 441E - Private Applied Mus: Flute - 2 or 4

Flute. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all

secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441F - Private Applied Mus: Oboe - 2 or 4

Oboe. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441G - Private Applied Mus:Clarinet - 2 or 4

Clarinet. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentrations in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441H - Private Applied Mus:Bassoon - 2 or 4

Bassoon. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441I - Private Jazz: Saxophone - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for two semesters. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor. d. Bass, i. Saxophone, j. Percussion, k. Piano, m. Trumpet, n. Trombone, q. Voice, u. Guitar.

Attributes: FPA
Prerequisites: MUS 341I Minimum Grade of C.

MUS 441J - Private Jazz: Percussion - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for two semesters. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor. d. Bass, i. Saxophone, j. Percussion, k. Piano, m. Trumpet, n. Trombone, q. Voice, u. Guitar.

Attributes: FPA
Prerequisites: MUS 341J Minimum Grade of C.

MUS 441K - Private Jazz: Piano - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for two semesters.

Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor. d. Bass, i. Saxophone, j. Percussion, k. Piano, m. Trumpet, n. Trombone, q. Voice, u. Guitar.

Attributes: FPA
Prerequisites: MUS 341K Minimum Grade of C.

MUS 441L - Private Applied Mus: Horn - 2 or 4

Horn. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441M - Private Jazz: Trumpet - 2 or 4 (F)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for two semesters. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor. d. Bass, i. Saxophone, j. Percussion, k. Piano, m. Trumpet, n. Trombone, q. Voice, u. Guitar.

Attributes: FPA
Prerequisites: MUS 341M Minimum Grade of C.

MUS 441N - Private Jazz: Trombone - 2 or 4

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for two semesters. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor. d. Bass, i. Saxophone, j. Percussion, k. Piano, m. Trumpet, n. Trombone, q. Voice, u. Guitar.

Attributes: FPA
Prerequisites: MUS 341N Minimum Grade of C.

MUS 441O - Private Applied Mus:Tuba - 2 or 4

Tuba. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441P - Private Applied Mus: Baritone - 2 or 4

Baritone. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441Q - Private Jazz: Voice - 2 or 4

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level.

Consult with advisor for details of credit requirements. May be repeated for two semesters. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor. d. Bass, i. Saxophone, j. Percussion, k. Piano, m. Trumpet, n. Trombone, q. Voice, u. Guitar.

Attributes: FPA
Prerequisites: MUS 341Q Minimum Grade of C.

MUS 441R - Private Applied Mus: Organ - 2 or 4

Organ. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441S - Private Applied Mus:Harpsichor - 2 or 4

Harpsichord. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441T - Private Applied Mus: Harp - 2 or 4

Harp. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 441U - Private Jazz: Guitar - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for two semesters. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor. d. Bass, i. Saxophone, j. Percussion, k. Piano, m. Trumpet, n. Trombone, q. Voice, u. Guitar.

Attributes: FPA
Prerequisites: MUS 341U Minimum Grade of C.

MUS 441W - Private Applied Mus: - 2 to 4

Conducting. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Attributes: FPA

MUS 442 - Counterpoint - 3 (S)

Sixteenth and Eighteenth century contrapuntal techniques.

Attributes: BFPA
Prerequisites: MUS 225B Minimum Grade of C.

MUS 460A - Opera Workshop - 0 to 2 (F)

Skills, techniques, and literature used in performance and production of operatic scenes, operas, and operettas. May be repeated for a maximum of 16 hours. Prerequisite: Permit required.

Attributes: FPA

MUS 460B - Opera Workshop - 0 to 2 (S)

Skill, techniques, and literature used in performance and production of operatic scenes, operas, and operettas. May be repeated for a maximum of 16 hours. Prerequisite: Permit required.

Attributes: FPA
Registration Consent: Instructor

MUS 461A - Piano Teaching Techniques & Materials: Methods - 3

Methods. Problems of private studio teaching and college level teaching. Must be taken in sequence.

Attributes: BFPA

MUS 461B - Piano Teaching Techniques & Materials: Materials - 3 (aS)

Materials. Problems of private studio teaching and college teaching. Must be taken in sequence.

Attributes: BFPA
Prerequisites: MUS MUS 340K Minimum Grade of C.

MUS 465 - Development and Teaching of Strings - 2 (FS)

String education in elementary and secondary schools. Techniques of heterogeneous and homogeneous string teaching. Resource aids. May be repeated to a maximum of 8 hours. Requires consent of instructor.

Attributes: FPA
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Music

MUS 472A - Arranging - 3

Instrumental. Basic Skills of arranging for large ensembles. Writing project required. May be repeated so long as topic is different.

Attributes: FPA
Prerequisites: MUS 309 Minimum Grade of B.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

MUS 472B - Arranging - 3

Choral. Basic Skills of arranging for large ensembles. Writing project required. May be repeated so long as topic is different.

Attributes: FPA
Prerequisites: MUS 309 Minimum Grade of B.
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

MUS 481 - Readings in Music Theory - 1 to 3 (S)

Supervised readings in Music Theory.

Attributes: FPA
Registration Consent: Instructor

MUS 482 - Readings in Music History/Literature - 1 to 3

Supervised readings in Music History/Literature.

Attributes: FPA
Registration Consent: Instructor

MUS 483 - Readings in Music Education - 2

Supervised readings in Music Education.

Attributes: FPA

MUS 499 - Independent Study - 1 to 3 (FS)

Independent research under the supervision of a faculty specialist. May be repeated to 6 credits. Prerequisite: Permit required.

Attributes: FPA
Registration Consent: Instructor

MUS 500A - Graduate Music Theory Review - 2 (FS)

Review of music theory and analysis. Credit earned

in this course does not apply towards graduation. Does not substitute for grad level theory requirements.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 500B - Graduate Music History/Literature Review - 2 (F)

Review of main developments, periods, composers, styles, and works in the history of western music. Credit earned in this course does not apply toward graduation. 500B does not substitute for graduate-level music history requirements.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 501 - Introduction to Graduate Study in Music - 2 (M)

Basic bibliography and research techniques in music theory, literature, and education.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 502 - Critical Approaches to Musical Analysis - 2 (S)

Representative works chosen from the baroque, classical, romantic, and modern eras.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 509 - Jazz Composition/Arranging - 2 (F)

Jazz Composition/Arranging is designed to allow students an opportunity to explore, develop and demonstrate written music competencies in the jazz medium. Prerequisite: MUS 409B with minimum grade of D or concurrent enrollment.

Attributes: FPA
Prerequisites: MUS 409B (concurrency allowed)
Restrictions: Must be enrolled in one of the following Levels: Graduate

MUS 511A - Music Literature: Symphonic - 2

Symphonic. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 511B - Music Literature: Choral - 2

Choral. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 511C - Music Literature: Chamber - 2

Chamber. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 511D - Music Literature: Opera - 2

Opera. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 511E - Music Literature: Special Areas - 2 (F)

Special Areas. Study of period, composer, style, or medium. Each segment may be repeated to a maximum of 6 hours so long as no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 511F - Music Literature: Vocal Literature - 2

Survey of classical art song. Renaissance to 21st Century. Study of style and interpretation.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 511G - Music Literature: 20th Century - 2

Study of period, composer, style or medium. Each segment may be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Levels: Graduate

MUS 512A - Applied Composition - 4 (FS)

Original composition.

Restrictions: Must be enrolled in one of the following Majors: Music, Must be enrolled in one of the following Levels: Graduate

MUS 512B - Applied Composition - 4 (S)

Original composition. Must be taken in sequence.

Prerequisites: Graduate level MUS 512A Minimum Grade of C
Restrictions: May not be enrolled as one of the following Majors: Music, Must be enrolled in one of the following Levels: Graduate

MUS 519A - Vocal Pedagogy - Science, Physiology and Technique - 2

Physiology of the human voice as it applies to singing technique.

Prerequisites: MUS 440Q Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 519B - Vocal Pedagogy - Methodology and Materials. - 2 (aF)

Continuation of MUS 519A. A comparative study of various pedagogical vocal methods. Examination of appropriate materials and repertoire for singers of all ages and abilities.

Prerequisites: MUS 519A Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 520 - Foundations of Music Education - 2

Examination of philosophical, psychological, and pedagogical notions about music education from early civilization through present to determine how societal developments influenced them.

Prerequisites: Graduate level MUS 501 Minimum Grade of C AND Graduate level MUS 500A Minimum Grade of C AND Graduate level MUS 500B Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 525 - Research in Music Education - 2 (S)

Students use their research and writing skills and their understanding of music teaching and learning to formulate, implement, and assess music education research.

Prerequisites: Graduate level MUS 501 Minimum Grade of C AND Graduate level MUS 500A Minimum Grade of C AND Graduate level MUS 500B Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 530 - Applied Theory & Ear Training - 2

Refinement of audition skills, with emphasis on practical applications of music theory.

Prerequisites: Graduate level MUS 500A Minimum Grade of C AND Graduate level MUS 500B Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

MUS 535 - Principles of Music Curriculum & Instruction - 2

Principles of learning and human musical development as they relate to understanding, designing and implementing music curricula and instruction.

Prerequisites: Graduate level MUS 520 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 539 - Advanced Diction - 2

Use of the International Phonetic Alphabet as it applies to vocal repertoire. Specifically designed for teachers who are preparing students for public performances and competitions.

Prerequisites: MUS 139A Minimum Grade of C AND MUS 139B Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

MUS 540A - Private Applied Music: Violin - 2 or 4 (FS)

Violin. Offered at five levels in areas listed. Credit is

given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440A Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540B - Private Applied Music: Viola - 2 or 4 (FS)

Viola. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentrations in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440B Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540C - Private Applied Music: Cello - 2 or 4 (aF)

Cello. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440C Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540D - Private Applied Music: String Bass - 2 or 4

String bass. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440D Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540E - Private Applied Music: Flute - 2 or 4 (FS)

Flute. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440E Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540F - Private Applied Music: Oboe - 2 or 4

Oboe. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all

secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440F Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540G - Private Applied Music: Clarinet - 2 or 4 (aF)

Clarinet. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentrations in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440G Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540H - Private Applied Music: Bassoon - 2 or 4

Bassoon. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440H Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540I - Private Applied Music: Saxophone - 2 or 4

Saxophone. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440I Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540J - Private Applied Music: Percussion - 2 or 4 (FS)

Percussion. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440J Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540K - Private Applied Music: Piano - 2 or 4 (FS)

Piano. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or

consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440K Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540L - Private Applied Music: Horn - 2 or 4

Horn. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440L Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540M - Private Applied Music: Trumpet - 2 or 4

Trumpet. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440M Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540N - Private Applied Music: Trombone - 2 or 4

Trombone. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440N Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540O - Private Applied Music: Tuba - 2 or 4

Tuba. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440O Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540P - Private Applied Music: Baritone - 2 or 4

Baritone. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440P Minimum Grade of C
Restrictions: May not be enrolled as the following

Levels: Undergraduate

MUS 540Q - Private Applied Music: Voice - 2 or 4 (FS)

Voice. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440Q Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540R - Private Applied Music: Organ - 2 or 4 (F)

Organ. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440R Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540U - Private Applied Music: Guitar - 2 or 4 (FF)

Guitar. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440U Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 540W - Private Applied Music: Conducting - 2 to 4 (FS)

Conducting. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

Prerequisites: MUS 440W Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541D - Private Jazz: Bass - 2 or 4 (F)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours on each level. Consult with advisor for details of credit requirements. May be repeated for three semesters. Students with concentration in performance usually take 4 credit hours. Concentrations in music education and all secondary concentrations usually take 2 credit hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor.

Prerequisites: MUS 441D Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541E - Private Applied Mus:Flute - 2 or 4

Flute. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with

adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541F - Private Applied Mus: Oboe - 2 or 4

Oboe. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541G - Private Applied Mus: Clarinet - 2 or 4

Clarinet. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentrations in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required. Clarinet. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentrations in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541H - Private Applied Mus: Bassoon - 2 or 4

Bassoon. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541I - Private Jazz: Saxophone - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for three semesters. Students with concentration in performance usually take 4 credit hours. Concentrations in music and education and all secondary concentrations usually take 2 credit hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor.

Prerequisites: MUS 441I Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541J - Private Jazz: Percussion - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for three semesters. Students with concentration in performance usually take 4 credit hours. Concentrations in music and education and all secondary concentrations usually take 2 credit hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541K - Private Jazz: Piano - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for three semesters. Students with concentration in performance usually take 4 credit hours. Concentrations in music and education and all secondary concentrations usually take 2 credit hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor.

Prerequisites: MUS 441K Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541L - Private Applied Mus: Horn - 2 or 4

Horn. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541M - Private Jazz: Trumpet - 2 or 4 (F)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for three semesters. Students with concentration in performance usually take 4 credit hours. Concentrations in music and education and all secondary concentrations usually take 2 credit hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor.

Prerequisites: MUS 441M Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541N - Private Jazz: Trombone - 2 or 4

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for three semesters. Students with concentration in performance usually take 4 credit hours. Concentrations in music and education and all secondary concentrations usually take 2 credit hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor.

Prerequisites: MUS 441N Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541O - Private Applied Mus: Tuba - 2 or 4

Tuba. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541P - Private Applied Mus: Baritone - 2 or 4

Baritone. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541Q - Private Jazz: Voice - 2 or 4

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for three semesters. Students with concentration in performance usually take 4 credit hours. Concentrations in music and education and all secondary concentrations usually take 2 credit hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor.

Prerequisites: MUS 441Q Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541R - Private Applied Music - 2 or 4

Organ. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541S - Private Applied Mus:Harpsicho - 2 or 4

Harpsichord. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541T - Private Applied Mus: Harp - 2 or 4

Harp. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 541U - Private Jazz: Guitar - 2 or 4 (FS)

Individual instruction in performance of various jazz styles. Offered at the 400 and 500 levels in the areas listed. Credit is given at 2 or 4 hours at each level. Consult with advisor for details of credit requirements. May be repeated for three semesters. Students with concentration in performance usually take 4 credit hours. Concentrations in music and education and all secondary concentrations usually take 2 credit hours. MUS 566 required for each semester of applied lesson. Prerequisites: audition; consent of instructor.

Prerequisites: MUS 441U Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 541W - Private Applied Mus: Guitar - 2 to 4

Conducting. Offered at five levels in areas listed. Credit is given at 2 or 4 hours at each level. Consult with adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Performance class required. Prerequisites: For 140, music concentration or secondary concentration or consent of music faculty; for higher levels, 2 semesters at previous level on same instrument or permit required.

MUS 545 - Computer Applications in Music - 2

Use of computer-based music and multi-media hardware, peripherals, and applications software as mediating instruments to enhance music learning. Prerequisite: MUS 535 or consent of instructor.

Prerequisites: Graduate level MUS 535 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 553A - Seminar in Materials & Techniques: Choral - 2

Choral. May be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 553B - Seminar in Materials & Techniques: Instrumental - 2

Instrumental. May be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 553C - Seminar in Materials and Techniques: Piano - 2

Piano. May be repeated to a maximum of 6 hours provided no topic is repeated.

Restrictions: Must be enrolled in one of the following Majors: Music, May not be enrolled as the following Levels: Undergraduate

MUS 553D - Seminar in Materials and Techniques: Vocal - 2

A training ground for Vocal Music students who teach various forms of literature: Musical Theater, Opera, etc.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 560 - Seminar in Music Education - 2

Trends, practices, and philosophies. May be repeated once so long as no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 561A - Piano Pedagogy: Elementary to Early Intermediate - 3

Elementary to Early Intermediate. An extensive survey of methods and materials in teaching piano at elementary to early intermediate levels. Supervised student teaching is required. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Music, May not be enrolled as the following Levels: Undergraduate

MUS 561B - Piano Pedagogy - Late Intermediate to Advanced Levels - 3

Late Intermediate to Advanced. An extensive survey of methods and materials in teaching piano at late intermediate to advanced levels. Supervised student teaching is required. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Music, May not be enrolled as the following Levels: Undergraduate

MUS 565 - Advanced Piano Ensemble - Accompanying & Chamber Music - 2 (FS)

Study and performance of literature for the piano in collaboration with vocalists and instrumentalist and piano duos. May be repeated to 4 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 566 - Instrumental Ensemble - 1 or 2 (FS)

Participation in a chamber or large ensemble to study and perform literature in the field of the major instrument other than solo literature. May be repeated to a maximum of 4 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 567 - Vocal Ensemble - 1 or 2 (FS)

Participation in a chamber or large ensemble to study and perform vocal ensemble literature other than solo literature. May be repeated to a maximum of 4 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 590 - Graduate Recital - 1 to 4 (FS)

(Performance specialization) Public recital by candidates for major in performance. Prerequisites: MUS 501, MUS 502, MUS 540-8 or MUS 541-8.

Prerequisites: Graduate level MUS 501 Minimum Grade of C AND Graduate level MUS 502 Minimum Grade of C AND Graduate level MUS 540 Minimum Grade of C OR Graduate level MUS 541 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Music, May not be enrolled as the following Levels: Undergraduate

MUS 591 - Graduate Recital - 1 to 4

Public recital and preparation of supporting document by candidates for the concentration in music education in lieu of thesis. Candidates must be approved through jury audition. Repeatable to a max of 4 hours. Prerequisites: MUS 501, MUS 502, MUS 540-4 or MUS 541-4.

Restrictions: Must be enrolled in one of the following Majors: Music, May not be enrolled as the following Levels: Undergraduate

MUS 593 - Practicum in Vocal Pedagogy - 2

Studio voice instruction and advanced study in the field of applied vocal pedagogy under faculty supervision, to be taken concurrently with MUS 519B.

Prerequisites: Graduate level MUS 519A Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

MUS 599 - Thesis - 1 to 4 (S)

NO DESCRIPTION Minimum of 4 hours required; maximum credit accumulation is 6 hours. Prerequisite: Permit required.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Nursing (NURS)

NURS 500 - Theoretical Foundations of Nursing - 3

Systematic and critical analysis of nursing related concepts, models, and theories as a basis for Advance Nursing Practice.

Restrictions: May not be enrolled as the following Levels: Undergraduate

NURS 504 - Research in Advanced Nursing Practice - 3

Analyze, evaluate and synthesize health-related research and evidence-based practice reviews for the improvement of nursing practice.

Prerequisites: Graduate level NURS 500 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

NURS 505 - Health Policy and Advanced Nursing Practice - 3

Focus on the dynamics of health policy and nursing's role in complex health care systems. Prerequisite: Graduate Standing.

Restrictions: May not be enrolled as the following Levels: Undergraduate

NURS 509 - Interdisciplinary Health Care Informatics - 3 (FS)

Introduces informatics terminology and theory, including searching, managing, and evaluating data, analyzing information systems, and integrating technology into practice.

Restrictions: May not be enrolled as the following Levels: Undergraduate

NURS 510 - Health Care Informatics - 3 (M)

Critical elements of healthcare informatics for advanced nursing practice including searching, managing, and evaluating data, analyzing information systems, and integrating technology into practice. Prerequisites: Admission to the program or permission of Assistant Dean for Graduate Programs.

Restrictions: Must be enrolled in one of the following Majors: Hlth Care and Nurs Admin, May not be enrolled as the following Levels: Undergraduate

NURS 511 - Social, Ethical and Legal Issues in an Information Age - 3 (MS)

Explores social, ethical and legal issues related to searching, storing and using health care information and the ethical and legal formation of informatics professionals.

Restrictions: May not be enrolled as the following Levels: Undergraduate

NURS 512 - Managing Quality and Safety in Healthcare - 3 (FS)

Examination of processes and integration of concepts used to measure and improve the quality and effectiveness of health care. Examination and analysis of Research statistics.

Restrictions: May not be enrolled as the following Levels: Undergraduate

NURS 513 - Advanced Health Assessment & Practicum - 3 (FS)

Development of advanced health assessment knowledge, techniques, and skills with emphasis on using assessment data for clinical decision making across the lifespan. Includes 60 practicum and 30 laboratory hours.

Prerequisites: Graduate level NURS 514 Minimum Grade of C AND Graduate level NURS 515 Minimum Grade of C. Corequisite(s): NURS 529, NURS 563, NURS 605
Corequisites: NURS529, NURS563, NURS605
Restrictions: Must be enrolled in one of the following Majors: Family Nurse Practitioner,Nurse Anesthesia, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 514 - Advanced Human Physiology - 4 (F)

An organ system approach is used to examine physiological processes across the lifespan. Requires Graduate standing.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 515 - Advanced Human Pathophysiology - 4 (FS)

Focus on pathophysiological processes that result in altered function in selected organ systems across the lifespan.

Prerequisites: Graduate level NURS 514 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 516 - Pharmacology for Advanced Nursing Practice - 3 (FS)

Study of pharmacokinetics, pharmacodynamics, and Pharmacotherapeutics of major drug categories for advanced nursing practice.

Prerequisites: Graduate level NURS 514 Minimum Grade of C AND Graduate level NURS 515 Minimum Grade of C. Corequisite(s): NURS564
Corequisites: NURS564
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 518 - Advanced Human Pathophysiology for Educators - 3 (FS)

Focus on pathophysiological processes that result in altered function in selected organ systems across the life-span.

Restrictions: Must be enrolled in one of the following Majors: Nurse Educator, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 520 - Diagnostic Tests and Interpretation and Procedures for Nurse Practitioners - 3 (F)

Interpret diagnostic tests and perform selected procedural skills appropriate for advanced practice nursing.

Prerequisites: Graduate level NURS 514 Minimum Grade of C AND Graduate level NURS 515 Minimum

Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Family Nurse Practitioner,Nurse Practitioner, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 529 - Orientation to Nurse Anesthesia Practicum - 5 (S)

Orientation to the basic skills for safe entry into nurse anesthesia practice. Incorporates lecture and 90 hours of lab and practicum. Prerequisite: NURS 514, 515 and 564 with minimum grade of C or concurrent enrollment.

Prerequisites: Graduate level NURS 515 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 514 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 564 Minimum Grade of C (concurrency allowed). Corequisite(s): NURS 513, NURS 563, NURS 605.
Corequisites: NURS513, NURS563, NURS605
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 555 - Topics in Health Care - 3

Special health-related topics not covered in regular course offerings. Content varies, depending on student interest and availability of faculty. May be repeated to a maximum of 6 hours as long as no topic is repeated. Requires Graduate standing.

Restrictions: May not be enrolled as the following Levels: Undergraduate

NURS 556 - Quality and Safety for Nurse Executives - 3 (S)

Identifying systems and process failures that lead to errors, monitoring and analyzing information, and initiating quality improvements within organizations. Includes 90 hours of practicum.

Prerequisites: Graduate level NURS 590 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Nursing
Registration Consent: Advisor

NURS 558 - Nurse Executive Leadership I - 3 (M)

Under guidance and supervision of a nurse executive preceptor, begin to design and implement an evidence-based scholarly project related to nurse executive role. Includes 45 hours of practicum.

Prerequisites: Graduate level NURS 556 (concurrency allowed) AND Graduate level NURS 590 (concurrency allowed) AND Graduate level NURS 592 (concurrency allowed) AND Graduate level NURS 593 (concurrency allowed).
Restrictions: Must be enrolled in one of the following Majors: Hlth Care and Nurs Admin, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 560 - Ethical, Legal, and Systemic Issues in Anesthesia Practice - 3 (M)

Fosters the formation of advanced practice nurses through exploration of legal, ethical, safety, wellness, business, regulatory, and social dimensions of nurse anesthesia practice.

Prerequisites: Corequisites: NURS 567A, NURS 567B, NURS 697B.
Corequisites: NURS567A, NURS567B, NURS697B
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 563 - Pharmacology Related to Anesthesia - 3 (S)

Pharmacological properties and therapeutic and clinical uses of anesthesia drugs and their interactions with other common therapeutic agents.

Prerequisites: Graduate level NURS 516 Minimum Grade of C. Corequisite(s): NURS 513, NURS 529, NURS 605.
Corequisites: NURS513, NURS529, NURS605
Restrictions: Must be enrolled in one of the following Majors: Nurse Anesthesia, May not be enrolled as the following Levels: Undergraduate

Registration Consent: Advisor

NURS 564 - Chemistry and Physics Applied to Anesthesia - 3 (F)

Integration of chemistry, biochemistry and physics principles into nursing anesthesia care. Requires admission to the Anesthesia Nursing Specialization; undergraduate courses in Organic/Biochemistry & Physics.

Prerequisites: Corequisite: NURS 516, NURS 600, NURS 604.
Corequisites: NURS516, NURS600, NURS604
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, May not be enrolled as the following Levels: Undergraduate

NURS 565A - Theoretical Foundations of Anesthesia Nursing I - 5 (M)

Integration of basic anesthesia principles and nursing theory into nurse anesthesia role when caring for specific surgical populations.

Prerequisites: Graduate level NURS 529 Minimum Grade of C AND Graduate level NURS 563 Minimum Grade of C AND Graduate level NURS 564 Minimum Grade of C. Corequisite(s): NURS 565B, NURS 695A
Corequisites: NURS565B, NURS695A
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 565B - Clinical Practicum in Nurse Anesthesia I - 1 (M)

Application of theoretical principles to care, providing anesthesia to patients while under the supervision of CRNA and/or Anesthesiologist preceptors.

Prerequisites: Graduate level NURS 529 Minimum Grade of C AND Graduate level NURS 563 Minimum Grade of C AND Graduate level NURS 564 Minimum Grade of C. Corequisite(s): NURS 565A, NURS 695A
Corequisites: NURS565A, NURS695A
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 566A - Theoretical Foundations of Nurse Anesthesia II - 5 (F)

Integration of advanced anesthesia principles, natural sciences, nursing theory and pharmacology into nurse anesthesia care of specialty, complex patient populations.

Prerequisites: Graduate level NURS 565A Minimum Grade of C AND Graduate level NURS 565B Minimum Grade of C. Corequisite(s): NURS 566B, NURS 691, NURS 697A
Corequisites: NURS566B, NURS691, NURS697A
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 566B - Clinical Practicum in Nurse Anesthesia II - 2 (F)

Application of theoretical principles to care, providing anesthesia to specialty patient populations while under the supervision of CRNA and/or Anesthesiologist preceptors.

Prerequisites: Graduate level NURS 565A Minimum Grade of C AND Graduate level NURS 565B Minimum Grade of C. Corequisite(s): NURS 566B, NURS 691, NURS 697A
Corequisites: NURS566A, NURS691, NURS697A
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 567A - Theoretical Foundations of Nurse Anesthesia III - 5 (S)

Integration of advanced anesthesia principles, natural sciences, nursing theory, and pharmacology into nurse anesthesia care of complex specialty populations.

Prerequisites: Graduate level NURS 566A Minimum Grade of C AND Graduate level NURS 566B Minimum Grade of C. Corequisite(s): NURS 560, NURS 567A, NURS 697B

Corequisites: NURS560, NURS567B, NURSN697B
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 567B - Clinical Practicum in Nurse Anesthesia III - 2 (S)

Application of theoretical principles into care, providing anesthesia to complex patients while under the supervision of CRNA and/or Anesthesiologist preceptors.

Prerequisites: Graduate level NURS 566A Minimum Grade of C AND Graduate level NURS 566B Minimum Grade of C. Corequisite(s): NURS 560, NURS 567A, NURS 697B
Corequisites: NURS560, NURS567A, NURS697B
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 570 - Health Promotion - 3 (FS)

Clinical prevention across the lifespan including the impact of lifestyle, cultural, and environmental factors on health, psycho-social well-being, and health disparities in individuals, families, and populations.

Prerequisites: Graduate level NURS 600 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Concentrations: Family Nurse Practitioner, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 571 - Advanced Management of Adults Health in Primary Health Care I with Practicum - 4 (S)

Assessment and management of adult health in primary care settings focusing on the respiratory, cardiovascular, gastrointestinal, musculoskeletal, and hematological systems. Includes 90 practicum hours.

Prerequisites: Graduate level NURS 513 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 516 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 520 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Family Nurse Practitioner,Nurse Practitioner, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 572 - Advanced Management of Adult Health in Primary Health Care II with Practicum - 4 (F)

Assessment and management of adult health in primary care settings focusing on the neurological, psychological, dermatological, endocrine, immune, and genitourinary systems. Includes 90 practicum hours.

Prerequisites: Graduate level NURS 571 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Family Nurse Practitioner,Nurse Practitioner, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 573 - Advanced Management of Women's Health with Practicum - 3 (FM)

Assessment and management of women’s health, focusing on health promotion, health protection, disease prevention, and disease management in primary healthcare settings. Includes 90 practicum hours.

Prerequisites: Graduate level NURS 513 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 516 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 520 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Family Nurse Practitioner,Nurse Practitioner, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 576 - Advanced Management of the Pediatric Health with Practicum - 4 (FS)

Assessment and management of pediatric health,

focusing on health promotion, health protection, disease prevention and disease management in primary care settings. Includes 90 practicum hours.

Prerequisites: Graduate level NURS 513 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 516 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 520 Minimum Grade of C (concurrency allowed)
Restrictions: Must be enrolled in one of the following Majors: Family Nurse Practitioner,Nurse Practitioner, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 580 - Teaching and Learning Theory in Nurse Education - 3 (M)

Overview of classic and contemporary teaching and learning philosophies, theories, technologies and research as it relates to the development and socialization of nurse educators. Prerequisite: Admission to the Nurse Educator Specialization of consent of Assistant Dean of Grad Program.

Restrictions: Must be enrolled in one of the following Majors: Nurse Educator, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 581 - Curriculum Theory, Design, and Program Evaluation in Nursing Education - 3 (F)

Essential components of nursing curriculum theory, design and program evaluation will be examined. External and internal influences and barriers on the curriculum will be included.

Prerequisites: Graduate level NURS 500 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

NURS 582 - Instructional Design, Assessment, and Evaluation for Nursing Education - 3 (S)

Explores innovative instructional design strategies, outcomes, evidence based assessment and evaluation tools in relation to classroom competence and clinical achievement which includes diverse population needs. Includes 90 hours practicum.

Prerequisites: Graduate level NURS 504 Minimum Grade of C AND Graduate level NURS 581 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Nurse Educator, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 585 - Nurse Educator Role Synthesis - 3 (F)

In this course, the graduate student integrates evidence-based practice into the role of the specialty nurse educator. Includes 90 hours of practicum.

Prerequisites: Graduate level NURS 581 Minimum Grade of C AND Graduate level NURS 582 Minimum Grade of C AND Graduate level NURS 586 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Nurse Educator, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 586 - Advanced Specialty Nursing Practice for Nurse Educators - 3 (M)

Integrates evidence-based practice and advanced health assessment knowledge in learner's nursing specialty. Investigates the interrelationship among practice, theory, and research through clinical practicum in specialty area. Includes 90 hours practicum.

Prerequisites: Graduate level NURS 513 Minimum Grade of C AND Graduate level NURS 515 Minimum Grade of C AND Graduate level NURS 516 Minimum Grade of C AND Graduate level NURS 581 Minimum Grade of C AND Graduate level NURS 582 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Nurse Educator, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 590 - Organizational Behavior and Leadership for Nurse Executives - 3 (F)

Integration and application of organizational, management, and leadership theories incorporated in nurse executive practice. Explores healthcare models, structure, and design. Includes 45 hours practicum.

Restrictions: Must be enrolled in one of the following Majors: Hlth Care and Nurs Admin, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 592 - Finance and Budgeting in Health Care and Nursing Administration - 3 (F)

Emphasizes management of diverse human resources in health care. Selected topics include professional growth, performance appraisal, recruitment, retention, promotion, conflict management, collective bargaining, and diversity; includes 45 hours practicum.

Prerequisites: Graduate level NURS 590 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Hlth Care and Nurs Admin, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

NURS 593 - Management of Human Resources in Health Care - 3 (S)

Examines factors related to the management of diverse human resources in health care.

Prerequisites: Graduate level NURS 590 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 594 - Nurse Executive Leadership II - 3 (F)

Under the guidance of a nurse executive preceptor in a planned practicum experience, applies knowledge, skills, and abilities related to the nurse executive role. Includes 90 hours practicum.

Prerequisites: Graduate level NURS 590 Minimum Grade of C AND Graduate level NURS 592 Minimum Grade of C AND Graduate level NURS 593 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Hlth Care and Nurs Admin, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 598 - Independent Study - 1 to 3 (FMS)

Guided study in nursing topics; organized to meet objectives of individuals or small groups of graduate students in particular area of interest. Total earned hours may not exceed 3. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

NURS 600 - Theory Guided Practice - 3 (FS)

Explores nursing and health care concepts, models and theories to develop a framework for designing, implementing, and evaluating innovative Doctor of Nursing (DNP) projects.

Corequisites: NURS564
Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 601 - Ethics Studies for Advanced Nursing Practice - 3 (FMS)

Explores ethical reasoning, theories, codes, and issues relevant for advanced nursing practice and research.

Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 604 - Evaluating Evidence for Improving Practice and Health Care Outcomes - 3 (FMS)

Translate scientific and clinical evidence for application into practice to improve healthcare outcomes. Prerequisite: Admission to the School of Nursing Graduate Program.

Prerequisites: Graduate level NURS 600 Minimum Grade of C AND Graduate level NURS 617 Minimum Grade of C AND Graduate level NURS 620 Minimum Grade of C. Corequisite(s): NURS 564
Corequisites: NURS564
Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 605 - Health Policy and Finance for Advanced Nursing Leadership - 3

Explores current health policy and health care finance issues important to nursing practice.

Prerequisites: Corequisite: NURS 513, NURS 529, NURS 563
Corequisites: NURS513, NURS529, NURS563
Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 606 - Leadership and Health Policy for Advanced Nursing Practice - 3 (FMS)

Exploration and analysis of knowledge and skills related to effective advanced nursing leadership in organizations, systems, and health policy development and finances. Advisor consent required. Nursing graduate majors only.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 617 - Advanced Applications of Epidemiology in Practice - 3 (M)

Interpret epidemiologic data and synthesize research for advanced nursing practice with individuals and populations.

Prerequisites: Graduate level NURS 600 Minimum Grade of C AND Graduate level NURS 620 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 620 - Health Care Informatics - 3 (FS)

Focus on critical elements of healthcare informatics for advanced nursing practice including searching, managing, and evaluating data; analyzing information systems; and integrating technology into practice.

Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 640 - Neurobiology and Clinical Psychopharmacology - 3 (FS)

Study of advanced concepts in neurobiology and the clinical management of targeted psychiatric symptoms, related to the psychopharmacologic treatment of various mental health conditions across the lifespan.

Restrictions: Must be enrolled in one of the following Majors: Nursing Practice,Psyc Mental Health Nurs Pract., Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 641 - Psychiatric Interviewing for Nurse Practitioners - 3 (FS)

This course provides a comprehensive overview of the fundamentals of psychiatric interviewing, focusing on interviewing skills with patients across the lifespan and along the continuum of mental health complexities.

Restrictions: Must be enrolled in one of the following Majors: Nursing Practice,Psyc Mental Health Nurs Pract., Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 642 - Psychiatric Mental Health I - 5 (MS)

Integration of current nursing theory, neurobiology, assessment, differential diagnoses, psychopharmacologic and non-pharmacologic treatment options into psychiatric patient care.

Prerequisites: Graduate level NURS 640 Minimum Grade of C AND Graduate level NURS 641 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Nursing Practice,Psyc Mental Health Nurs Pract., Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 643 - Psychiatric Mental Health II - 5 (F)

Integration of current nursing theory, neurobiology, assessment, differential diagnoses, psychopharmacologic and non-pharmacologic treatment options into psychiatric patient care.

Prerequisites: Graduate level NURS 640 Minimum Grade of C AND Graduate level NURS 641 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Nursing Practice,Psyc Mental Health Nurs Pract., Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 644 - Advanced Psychiatric Mental Health Role Synthesis - 3 (FS)

This course builds on overall knowledge of psychiatric mental health advanced practice nursing and provides a synthesis experience.

Prerequisites: Graduate level NURS 640 Minimum Grade of C AND Graduate level NURS 641 Minimum Grade of C AND Graduate level NURS 642 Minimum Grade of C AND Graduate level NURS 643 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Nursing Practice,Psyc Mental Health Nurs Pract., Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 667A - Professional Role: Ethical, Legal, and Systemic Issues in Anesthesia Practice - 4

This course presents fundamental concepts related to the professional role and is designed to allow students to engage in an in-depth study of how they can further develop as leaders in nurse anesthesia practice. The course will foster the formation of advanced practice nurses through exploration of legal, ethical, safety, wellness, business, regulatory, and social dimensions of nurse anesthesia practice.

Prerequisites: Corequisite(s): NURS 667B
Corequisites: NURS667B
Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 667B - Clinical Practicum in Nurse Anesthesia IIIb - 1

Application of theoretical principles into care of the peri-operative patient with focus on leadership within the nurse anesthesia clinical setting.

Prerequisites: Corequisite(s): NURS 667A
Corequisites: NURS667A
Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 668A - Clinical Correlations and Innovations in Anesthesia Practice I - 3 (F)

Analysis of correlations between complex anesthesia cases and relevant theoretical principles. Focus on evidence based practice and synthesis of learning to promote innovative care.

Prerequisites: Graduate level NURS 567A Minimum Grade of C AND Graduate level NURS 567B Minimum Grade of C. Corequisite(s): NURS 668B, NURS 697D
Corequisites: NURS668B, NURS697D
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 668B - Clinical Practicum in Nurse Anesthesia IV - 2 (F)

Application of advanced theoretical principles into nurse anesthesia care of critically ill or complex patients while under the supervision of CRNA and/or Anesthesiologist preceptors.

Prerequisites: Graduate level NURS 567A Minimum Grade of C AND Graduate level NURS 567B Minimum Grade of C. Corequisite(s): NURS 668A, NURS 697D
Corequisites: NURS668A, NURS697D
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 669A - Clinical Correlations and innovations in Anesthesia Practice II - 3 (S)

Analysis of correlations between complex anesthesia cases and the variables that impact patient outcomes.

Prerequisites: Graduate level NURS 668A Minimum Grade of C AND Graduate level NURS 668B Minimum Grade of C. Corequisite(s): NURS 669B, NURS 697E
Corequisites: NURS669B, NURS697E
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 669B - Clinical Practicum in Nurse Anesthesia V - 2 (S)

Application of advanced practice nursing role into care of critically ill/complex patients under

supervision of CRNA and/or Anesthesiologist preceptors.

Prerequisites: Graduate level NURS 668A Minimum Grade of C AND Graduate level NURS 668B Minimum Grade of C. Corequisite(s): NURS 669B, NURS 697E
Corequisites: NURS669A, NURS697E
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 670A - Clinical Leadership in Anesthesia Seminar - 1 (M)

Exploration and analysis of critical skills and knowledge related to leadership within the nurse anesthesia practice environment.

Prerequisites: (Graduate level NURS 567A Minimum Grade of C AND Graduate level NURS 567B Minimum Grade of C) AND Graduate level NURS 691 Minimum Grade of C. Corequisite(s): NURS 670B, NURS 697C.
Corequisites: NURS670B, NURS697C
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 670B - Clinical Leadership in Anesthesia Practicum - 1 (M)

Application of theoretical principles into care of the perioperative patient with focus on leadership within the nurse anesthesia clinical setting.

Prerequisites: (Graduate level NURS 567A Minimum Grade of C AND Graduate level NURS 567B Minimum Grade of C) AND Graduate level NURS 691 Minimum Grade of C. Corequisite(s): NURS 670A, NURS 697C.
Corequisites: NURS670A, NURS697C
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 677 - Advanced Practicum and Role Synthesis - 5 (S)

Advanced, comprehensive practicum experience focusing on the advanced practice nursing role in primary care settings. Includes 270 practicum hours.

Prerequisites: Graduate level NURS 572 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 573 Minimum Grade of C (concurrency allowed) AND Graduate level NURS 576 Minimum Grade of C (concurrency allowed). Corequisite(s): NURS 691.
Corequisites: NURS691
Restrictions: Must be enrolled in one of the following Majors: Family Nurse Practitioner, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 691 - Organizational and Systems Leadership in Health Care - 3

Exploration and analysis of critical skills and knowledge related to leadership for advanced nursing practice.

Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 695A - Introduction to DNP Projects - 1 (FM)

Exploration of evidence based, innovative initiatives in health care.

Prerequisites: Graduate level NURS 600 Minimum Grade of C AND Graduate level NURS 620 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

NURS 695P - DNP Project - 1 to 4 (FMS)

Implement project proposals to improve patient safety, access, cost-effectiveness, and quality of care within healthcare systems.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 697A - Doctoral Project Design and Management - 1 (FS)

Focuses on identification and refinement of the final doctoral project topic and theoretical frameworks,

based on a comprehensive literature review.

Prerequisites: Graduate level NURS NURS 695A Minimum Grade of C
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 697B - Doctoral Project II Design and Management - 1 (S)

Focuses on developing methods for final doctoral project implementation, based on stakeholder input, needs assessment, literature review, and projected outcome criteria.

Prerequisites: Graduate level NURS 697A Minimum Grade of C
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 697C - Doctoral Project III Design and Management - 3 (M)

Focuses on initiating final doctoral project implementation, initial data collection, and assessment of plan effectiveness.

Prerequisites: Graduate level NURS 697B Minimum Grade of C
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 697D - Doctoral Project IV Design and Management - 1 (F)

Focuses on completion of final doctoral project implementation, with emphasis on data analysis and development of recommendations.

Prerequisites: Graduate level NURS 697C Minimum Grade of C
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

NURS 697E - Doctoral Project V Design and Management - 1 (S)

Focuses on dissemination of final doctoral project outcomes and recommendations.

Prerequisites: Graduate level NURS 697D Minimum Grade of C
Restrictions: Must be enrolled in one of the following Concentrations: Nurse Anesthesia, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

Nutrition (NUTR)

NUTR 501 - Introductory Research and Evaluation Methods - 3

Introduction to evidence-based research. Research types, designs, analysis, and applications will be discussed. Research proposal development will be included.

Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, May not be enrolled as the following Levels: Undergraduate

NUTR 505 - Introduction to Professional Practice - 1 (F)

Provides an introduction to dietetic practice including standards and guided practice, professional performance, nutrition care process, and quality care standards.

Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 507 - Introduction to Nutrition Care - 3 (F)

Introduction to the professional practice of dietetics. Using nutrition care process as a framework, students learn how to provide nutrition services to patients.

Prerequisites: Corequisite(s): NUTR 507P
Corequisites: NUTR507P
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 507P - Introduction to Nutrition Care Supervised Practice - 1 (S)

Using nutrition care process as a framework, students learn how to provide nutrition services to patients at area clinical sites.

Prerequisites: Corequisite(s): NUTR 507
Corequisites: NUTR507
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 508 - Nutrition Entrepreneurship - 2 (F)

Includes advanced analysis of the problems and considerations involved in establishing, organizing, and operating a nutrition-based business or clinical nutrition practice.

Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 510 - Advanced Food Service Management - 3 (F)

Will apply management and systems theory to roles relevant to dietetics, with an emphasis on food service organizations.

Prerequisites: Corequisite(s): NUTR510P
Corequisites: NUTR510P
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 510P - Advanced Food Service Management Supervised Practice - 1 (F)

Food Service management skills are developed through fieldwork and projects. Students also plan, prepare, and serve a meal to a community group.

Prerequisites: Corequisite(s): NUTR510
Corequisites: NUTR510
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 511 - Medical Nutrition Therapy I - 3 (S)

Pathology, treatment, and nutritional therapy of chronic and acute diseases. Incorporates principles of nutrition assessment, diet prescription, care plans, and documentation.

Prerequisites: Graduate level NUTR 507 Minimum Grade of B AND Graduate level NUTR 507P Minimum Grade of B. Corequisite(s): NUTR 511P
Corequisites: NUTR511P
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 511P - Medical Nutrition Therapy I Supervised Practice - 3 (FS)

The clinical application of nutrition-related diagnoses and conditions discussed in NUTR 511.

Prerequisites: Graduate level NUTR 507 Minimum Grade of B AND Graduate level NUTR 507P Minimum Grade of B. Corequisite(s): NUTR511
Corequisites: NUTR511
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 512 - Medical Nutrition Therapy 2 - 3

Study of biochemical and physiological basis for nutrition care in treating disease. This is the second semester of a two-semester course.

Prerequisites: Graduate level NUTR 511 Minimum Grade of B
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 512P - Medical Nutrition Therapy 2 Supervised Practice - 3 (FS)

The clinical application of nutrition care of those with nutrition-related diagnoses and conditions discussed in NUTR 512.

Prerequisites: Graduate level NUTR 511 Minimum Grade of B AND Graduate level NUTR 511P Minimum Grade of B Corequisite(s): NUTR 512
Corequisites: NUTR512
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 513 - Advanced Sport and Exercise Nutrition - 3 (S)

Exploration, analysis, and application of evidence-based nutrition information to sports and exercise.

Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 521 - Community Nutrition - 3 (S)

Study of community nutrition needs and problems, the goals, organization, and history of selected government and private programs are investigated.

Prerequisites: Graduate level NUTR 507 Minimum Grade of B AND Graduate level NUTR 507P Minimum Grade of B Corequisite(s): NUTR521P
Corequisites: NUTR521P
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 521P - Community Nutrition 1 Supervised Practice - 2 (S)

Provides supervised practice in community nutrition at area agencies, organizations, and programs.

Prerequisites: Graduate level NUTR 507 Minimum Grade of B AND Graduate level NUTR 507P Minimum Grade of B Corequisite(s): NUTR521
Corequisites: NUTR521
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 522P - Community Nutrition 2 Supervised Practice - 1 (S)

Students develop, implement, and evaluate a community nutrition intervention.

Prerequisites: Graduate level NUTR 521 Minimum Grade of B AND Graduate level NUTR 521P Minimum Grade of B
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 531P - Advanced Nutrition Practicum 1 - 8 (FS)

First part of a two course sequence. It provides advanced supervised practice experiences in all of dietetics. Consists of 24 supervised practice hours/week.

Prerequisites: Graduate level NUTR 511 Minimum Grade of B AND Graduate level NUTR 511P Minimum Grade of B AND Graduate level NUTR 521 Minimum Grade of B AND Graduate level NUTR 521P Minimum Grade of B
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 532P - Advanced Nutrition Practicum 2 - 8 (FS)

Second part of a two course sequence. It provides advanced supervised practice experiences in all of dietetics. Consists of 24 supervised practice hours/week.

Prerequisites: Graduate level NUTR 531P Minimum Grade of B
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

NUTR 535 - Nutrition Seminar - 3 (S)

Seminar format. Students review/critique research and practically apply their knowledge. Students will have opportunity to gain hands-on practice with the credentialing examination for dietetics.

Prerequisites: Graduate level NUTR 531P Minimum Grade of B
Restrictions: Must be enrolled in one of the following Majors: Nutrition and Dietetics, Must be enrolled in one of the following Levels: Graduate

Operations Research (OR)

OR 440 - Operations Research Deterministic Models - 3 (S)

Linear programming, problem formulation, simplex algorithm, transportation and network problems, duality theory, sensitivity theory. Same as IME 415. Requires completion of stated prerequisites or consent of instructor.

Prerequisites: MATH 250 Minimum Grade of C

OR 441 - Operations Research Stochastic Models - 3 (S)

Probabilistic models, elementary queuing theory with single or multiple server systems, use of queues in facility designs, and elementary decision theory. Markov processes and decision-making. Same as IME 461.

Prerequisites: STAT 380 Minimum Grade of C OR STAT 480A Minimum Grade of C

OR 442 - Operations Research: Simulation - 3 (F)

Design of simulation models using a high level simulation programming language. Applications in production, inventory, queuing, and other models. Same as IE 468. Requires completion of stated prerequisites or consent of instructor.

Prerequisites: OR 441 Minimum Grade of C OR Graduate level OR 441 Minimum Grade of C OR STAT 380 Minimum Grade of C OR IE 461 Minimum Grade of C OR Graduate level IE 461 Minimum Grade of C OR IME 461 Minimum Grade of C OR Graduate level IME 461 Minimum Grade of C

OR 495 - Independent Study - 1 to 3

Research in subjects such as mathematical programming, dynamic programming, simulation, queuing, Markov processes and production topics. May be repeated to a maximum of 9 hours. Requires written consent of adviser and instructor.

Registration Consent: Instructor and Advisor

OR 585 - Advanced Simulation Modeling - 3 (aF)

Simulation modeling using a high-level simulation programming language: clock mechanisms, data structures, output analysis, sample applications in queuing and production.

Prerequisites: STAT 380 Minimum Grade of C OR STAT 480B Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

OR 586 - Theory and Techniques of Simulation - 3

Theory and techniques of simulation: generation of random variable, output analysis, variance reduction, and experimental design and optimization.

Prerequisites: IE 468 Minimum Grade of C OR OR 442 Minimum Grade of C OR OR 585 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

OR 587A - Mathematical Programming: Theory, Methods, & Applications of Linear & Network Programming - 3

Theory, methods and applications of linear and network programming. Prerequisites: OR 440, MATH 321, knowledge of Fortran.

Prerequisites: OR 440 Minimum Grade of C AND MATH 321 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

OR 587B - Mathematical Programming: Theory, Methods, & Applications of Integer, Dynamic, & Nonlinear Program - 3

Theory, methods and applications of integer, dynamic and nonlinear programming.

Prerequisites: Graduate level OR 587A Minimum Grade of C or OR 587A Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

OR 590 - Seminar - 1 to 3

Intensive study of selected topics: mathematical programming; dynamic programming; simulation; queuing; stochastic processes; Markov processes; production. May be repeated to a maximum of 18 hours provided no topic is repeated. Requires written consent of advisor and instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor and Advisor

OR 595 - Special Project - 1 to 3

Independent study in mathematical programming, simulation, queuing Markov processes, or production. May be used to satisfy research paper requirement for M.S. degree in Mathematics. May be repeated to a maximum of 7 hours. Requires consent of research advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

OR 599 - Thesis - 1 to 6

Directed research to satisfy thesis requirement. May be repeated for total of 6 hours. Requires written consent of thesis advisor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

Public Admin and Pol Analysis (PAPA)

PAPA 411 - Spreadsheet Applications - 1 (FMS)

Development of skills in spreadsheet construction and public sector applications.

Prerequisites: Corequisite: PAPA420
Corequisites: PAPA420

PAPA 420 - Quantitative Analysis - 3 (FMS)

Research design; descriptive statistics; hypothesis testing; nonparametric statistics; analysis of variance; correlation; regression.

Prerequisites: Corequisite: PAPA 411
Corequisites: PAPA411

PAPA 499 - Seminar in Public Admin - 1 to 3

Intensive study of selected topic. Topics chosen by department to supplement regular course offerings. May be repeated to a maximum of 9 hours, provided no topic is repeated.

PAPA 500 - Fundamentals of Public and Nonprofit Administration - 3 (FMS)

Concepts, issues, and problems as confronted in the public sector and nonprofit organizations. Organizational structure and behavior, personnel, budgeting; leadership; planning and decision making.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 501 - Public Organizations - 3 (FMS)

Theoretical analysis of environment; structure; communication patterns; leadership; informal groups; decision making of government and nonprofit agencies.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 506 - Public Law - 3 (S)

Legal concepts; regulatory agencies and rule making; federal and state relations; employee relations; civil rights; administrator liability.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 507 - Values & the Practice of Public Administration - 3 (F)

Role of organizational, societal, and individual values in ethical public administration; models for resolving ethical and values-based conflict in public organizations.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 510 - E-Government and Cybersecurity - 3 (FMS)

Issues related to policies and programs concerned with e-government and the security of software, devices, and data in public and nonprofit organizations.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 530 - Public Budgeting - 3 (FMS)

Budgeting topics include revenue, governments and economic activity, history, process, approaches, politics, and reform.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 540 - Public and Nonprofit Human Resources Administration - 3 (FMS)

Personnel functions as applied to public organizations: evolution of civil service; theory and practice of recruitment; P testing; job evaluations; training and the legal environment.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 545 - Public Sector Labor Relations - 3

Public sector collective bargaining: right to organize; representation elections; impasse resolution; unfair labor practices; contact administration; grievance arbitration; right to strike.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 546 - Performance Appraisal For the Public Sector - 3 (F)

Current research and applications of performance evaluations in the public sector. Topics include review of appraisal literature, legal issues, and current methodologies.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 548 - Public Supervisory Practices - 3 (F)

Case study approach to common supervisory problems in public and nonprofit sectors. Work scheduling; managing declining public resources; problem solving; coaching; disciplining; conflict management; leadership.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 550 - Public Policy: Context, Process & Analysis - 3 (FMS)

Policy making environment; policy process; policy formulation; implementation strategies; policy analysis techniques.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 555 - Topics in Policy Analysis - 1 to 3 (FS)

Special topics not treated in other course offerings. Content varies, depending on student interest and availability of faculty. May be repeated to a maximum of 9 hours as long as no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 561 - Application of Biostatistics and Epidemiology Principles to Health Care - 3 (FMS)

Application of Biostatistics with statistical software and Techniques of Epidemiology to health care management and policy.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PAPA 565 - Intro to Health Care Management - 3

Current policy issues in management of health services, focusing on acute and ambulatory care services. Cost, quality, and access considerations in delivery of these services.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 566 - Health Care Financing - 3

Private and public insurance (Medicare, Medicaid) systems. Evolution of hospital financial reimbursement capital allocation practices. Cost containment from perspective of providers, insurance, and employers. Physician payment and forms.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 567 - Topics of Health Care - 1 to 3

Current policy issues in management of health care services. Content varies, depending on student interest and availability of faculty. May be repeated to a maximum of 9 hours as long as no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 575 - Nonprofits - 3 (F)

Role of independent sector in U.S. society; unique problems of nonprofit administration; role of leadership in nonprofit organizations.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 576 - Strategic Planning & Organizational Dev - 3 (S)

Skills and methods of strategic planning as tools to lead, strengthen, and develop the public and/or nonprofit organization.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 577 - Needs Assessment & Strategic Marketing - 3 (S)

Effective nonprofit leadership in systematically assessing community needs; in marketing the nonprofit organization; in obtaining, public, private, and nonprofit action in addressing community problems.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 578 - Fund Raising - 3

Administration and management of fund raising process; principles, skills, methods and techniques of fund raising; direct mail, telephone, major gifts, capital campaigns, and other methods.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 579 - Grantsmanship - 3 (M)

Administration and management of grantsmanship process; basic principles, skills, methods, and techniques of grantsmanship for public and nonprofit organizations.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 580 - Public and Nonprofit Leaders - 3 (M)

Exploration and discussion of leadership in public and nonprofit organizations; introduction to the behaviors, knowledge, skills, and abilities required to lead public and nonprofit organizations.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PAPA 581 - Leadership with Public and Nonprofit Boards - 3 (S)

Exploration and discussion of the board's role in public and nonprofit organizations, leading alongside boards and councils, and using leadership to influence organizational direction.

Restrictions: Must be enrolled in one of the following Departments: Public Adm and Policy Analysis, Must be enrolled in one of the following Levels: Graduate

PAPA 582 - Leading in Public and Nonprofit Organizations - 3 (F)

Exploration, discussion, and application of the skills and abilities required of public and nonprofit employees to lead at all levels of the organization.

Restrictions: Must be enrolled in one of the following Departments: Public Adm and Policy Analysis, Must be enrolled in one of the following Levels: Graduate

PAPA 583 - Leading Innovation in Public and Nonprofit Organizations - 3 (S)

Course focuses on the role of public and nonprofit leaders in innovation and change. Examines knowledge, skills, and abilities related to innovation and creativity in organizations.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PAPA 584 - Community Leadership - 3 (M)

Focuses on knowledge, skills, and abilities related to the role of public and nonprofit leaders in contributing to change in the community and region. Prerequisite: Must be enrolled in MPA or Certificate in Leading Organizations, or have permission of Department (PAPA) Chair or Program Director

Restrictions: Must be enrolled in one of the following Departments: Public Adm and Policy Analysis, Must be enrolled in one of the following Levels: Graduate

PAPA 585 - Local Government Administration - 3 (F)

Situation and functions of general purpose local government. Situational elements include legalities, politics, and intergovernmental relations. Functions include public safety, human services, and public works.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PAPA 595 - Public Administration Internship - 3 (FMS)

Service in approved public administration work assignment under faculty supervision. May be repeated up to 5 times. Only 3 credit hours may be counted among the 39 hours required for graduation. Requires approval of Department Chair or MPA Program Director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

PAPA 596 - Individualized Research - 1 to 3 (aF)

Independent research and study of approved topic. May be repeated to a maximum of 3 hours. Requires approval of Department Chair or MPA Program Director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

PAPA 597 - Readings - 1 to 3 (FS)

Supervised readings on selected topics. Students explore interests not satisfied by regular course offerings. May be repeated to a maximum of 3 hours. Requires approval of Department Chair or MPA Program Director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

PAPA 599 - Seminar in Public Administration - 1 to 3 (FMS)

Intensive study of selected topic. Topics chosen by department to supplement regular course offerings. May be repeated to a maximum of 9 hours if topics vary.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Public Health (PBHE)

PBHE 462 - Special Topics in Public Health - 1 to 3 (M)

Relevant health issues. Topic and credit hours announced. May be repeated to a maximum of 6 hours so long as no topic is repeated.

PBHE 495 - Grant Writing in Public Health - 3 (FMS)

Practical application in the development of a grant for a public health agency or community. Strategies for exploring funding, collaboration, and preparation of quality proposals.

Prerequisites: PBHE 490 Minimum Grade of C

PBHE 500 - Core Principles in Public Health and Public Health Leadership - 3 (F)

A case-based approach to introduce students to leadership theories and research, provide a context for leadership in public health, and help students learn core leadership skills.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 510 - Theory and Practice - 2

Examines health-related behavior through the study of relevant leadership, psycho-sociological, ecological, and political theory. Emphasis is on application of theories in designing and leading programs.

Prerequisites: Corequisite: PBHE 511
Corequisites: PBHE511
Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 511 - Health Promotion and Disease Prevention: Theory and Practice Lab - 2

Emphasis is on application of theories. Using case studies to examine how leadership and behavior change theories are applied to public health programming and organizational leadership.

Prerequisites: Corequisite: PBHE 510
Corequisites: PBHE510
Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 520 - Public Health Data Analysis - 3 (F)

This applied biostatistics course is designed to develop skills in collecting, analyzing, and using public health data to lead organizations and make programmatic decisions. This course is an introduction to biostatistics.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 530 - Epidemiology - 3 (FS)

An overview of principles to study, prevent and control of health-related conditions in the human population and practices related to public health leadership and epidemiology.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 537 - HCI Epidemiology - 3 (S)

Causes, prevention, control of communicable, chronic and degenerative diseases in various community settings. Examination of statistical measures and methods for organizing vital statistics.

Restrictions: Must be enrolled in one of the following Majors: Healthcare Informatics, May not be enrolled as the following Levels: Undergraduate

PBHE 540 - Public Health Policy and Administration - 3 (F)

Overview of leadership and administrative issues in public health, including principles, practices and skills, factors that shape the health care system and public health services, and ethics.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 550 - Research and Evaluation Methods - 3 (S)

Introduction to research and evaluation. Types of research, process of scientific inquiry and critical analysis of research. Topic selection and development of a research proposal.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 560 - Applied Practice Experience - 3 (M)

Students will complete an applied project/internship for a public health organization that demonstrates attainment of at least five domains. Projects and domains will vary.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 570 - Environmental Health - 3 (S)

Addresses core principles and concepts of environmental health, analyze the impacts of human activity and the role of global leadership to control environmental hazards.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 580 - Public Health Interventions - 3 (FS)

Overview of theories for program planning/implementation in public health. Using logic models, community organizing, evaluation/assessment, social marketing and advocacy for leading public health programs/organizations.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 589 - Independent Study in Public Health - 3

Independent study allows the student to explore a

topic of interest under the close supervision of a public health faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate. Regardless of the nature of the experience, the work must culminate in a publication.

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor and Advisor

PBHE 598 - Grantwriting - 3 (FS)

Practical application in public health grant development. Explores funding, collaboration, and preparation of quality proposals.

Restrictions: Must be enrolled in one of the following Majors: Public Health, Must be enrolled in one of the following Levels: Graduate

PBHE 599A - Capstone Project - 3 (FS)

Students will work with a faculty mentor to develop their culminating project and submit required documentation.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PBHE 599B - Capstone Thesis - 3 (FS)

Students will work with a faculty mentor to develop their culminating project and submit required documentation.

Prerequisites: Graduate level PBHE 599A Minimum Grade of B
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

Pharmacy Administrative Sci. (PHAS)

PHAS 708 - Health Care Systems - 3 (F)

Examines the financing, and delivery of the U.S. healthcare system, introduces the concepts of health outcomes, population-based care, and social/economic factors that impact patient care.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy, Must be enrolled in one of the following Colleges: School of Pharmacy

PHAS 709 - Health Care & Financial Management - 2 (S)

Addresses principles of business, marketing, strategic planning, and financial management. The economic and political environment of the American health care system. Prerequisite: open to pharmacy students only or by consent of department chair.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHAS 716 - Ethical Issues in Health Care - 1 (F)

The course is structured as an interprofessional course where pharmacy students will collaborate with dental students to discuss ethical issues encountered in health care.

PHAS 728N - Pharmacy Management I - 2 (F)

Addresses pharmacy communication theory, the management of human resources and leadership principles that are useful in maximizing pharmacy operations.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHAS 733N - Pharmacy Law - 2 (F)

Covers legal requirements in pharmacy practice and helps students apply laws to circumstances they may encounter in various practice settings.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHAS 754 - Pharmacy Management II - 2 (S)

Introduction to leadership and management activities and resource use in the community, institutional and other pharmacy practice settings. Developing problem-solving abilities will be emphasized.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHAS 756 - Pharmacy & Population Health - 2 (F)

Introduces the concepts of population health, determinants and patterns of population health problems and identifying possible ways to improve population health.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

Pharmacy Elective (PHEL)

PHEL 755E - Special Topics in Pharmacy - 1 to 3

Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Pharmacy, May not be enrolled as the following Levels: Undergraduate

PHEL 760E - Orientation to Teaching - 3 (F)

Explores learning and motivation theories, teaching philosophies, culture of higher education, scholarship of teaching and learning, design of learning units, active learning and assessment strategies.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 761E - Instructional & Assessment Strategies - 3 (S)

Introduces various instructional and formative and summative assessment strategies with applications to the design of a learning unit.

Prerequisites: Professional level PHEL 760E Minimum Grade of C OR Professional level PHEL 760 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 764E - Pain & Palliative Care Pharmacotherapy - 2 (F)

Will provide the pharmacy student with an in-depth overview of pain management, hospice, and palliative care practice and health system models.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 765E - Pediatric Pharmacotherapy - 3 (F)

Designed to enhance knowledge related to the pharmacotherapy of select childhood disease states for ensuring the proper care of children and adolescents.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 766E - Diabetes Care and Experience - 3

Addresses specific patient populations, medical nutrition therapy, pharmacotherapy, advanced monitoring considerations and devices, applied teaching principles: identifying cultural competency and literacy skills.

Prerequisites: PHPT 730A minimum grade of C AND PHPT 730B minimum grade of C AND PHPT 730C minimum grade of C
Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 768E - Addiction - 2 (S)

Provides a review of addiction medicine as it relates to the pharmacy professional and to serve a prevention function within the profession.

Prerequisites: Professional level PHPT 750A AND Professional level PHPT 750B
Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 772E - Introduction to Nuclear Pharmacy - 2 (S)

Introduction to the specialty of Nuclear Pharmacy including radiopharmaceuticals, instrumentation, radioactive decay, production of radionuclides, radiation protection and radiation biology.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 773E - Advanced Pharmacogenomics - 2 (S)

Extension of the principles of pharmacogenomics from PHPS 703, conducting an in depth examination of genetic effects on drug metabolism and adverse events.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 774E - Advanced Infectious Diseases Pharmacotherapy - 2 (F)

An in-depth review of clinical uses for antimicrobials and application of infectious diseases treatment guidelines which involves independent reading, peer teaching & team-based learning.

Prerequisites: Professional level PHPT 730C Minimum Grade of C AND Professional level PHPT 730D Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 775E - Perspectives of Mental Health - 2 (S)

Enhance familiarity with the mental health system, psychopharmacology and the treatment of mental illnesses, and define the role of pharmacists in providing mental health care.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 776E - Critical Care Pharmacotherapy - 2 (S)

Discusses the pathophysiology and the therapeutic management of commonly encountered acute intensive care medical problems.

Prerequisites: Professional level PHPT 730A AND Professional level PHPT 730B AND Professional level PHPT 730C AND Professional level PHPT 730D
Restrictions: Must be enrolled in one of the following Majors: Pharmacy
Registration Consent: Advisor

PHEL 777E - Application of Clinical Guidelines in Ambulatory Care - 2 (S)

Designed to review practice guidelines for common ambulatory care disease states and allow students to expand and apply their therapeutic knowledge.

Prerequisites: Professional level PHPT 730A Minimum Grade of C AND Professional level PHPT 730B Minimum Grade of C AND Professional level PHPT 730C Minimum Grade of C AND Professional level PHPT 730D Minimum Grade of C AND Professional level PHPT 750A Minimum Grade of C AND Professional level PHPT 750B Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 779E - Advanced Self Care - 2 (F)

A study of nonprescription drugs. Emphasis will be placed on selection of the appropriate nonprescription drug for a patient and patient counseling.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 780E - Managed Care Pharmacy - 2 (S)

Fundamental concepts in managed care pharmacy and the impact on the health care system.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 782E - Advanced Cardiovascular Pharmacotherapy - 2 (S)

Allows students to become more familiar with disorders of the cardiovascular system through lecture, primary literature review and pharmaceutical care plan development.

Prerequisites: Professional level PHPT 730A Minimum Grade of C AND Professional level PHPT 730B Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 783E - Acute Care Pharmacotherapy - 2 (F)

Develops patient care skills in health system clinical pharmacy using case-based patient scenarios to emphasize dynamic drug and disease state management.

Prerequisites: Professional level PHPT 730A Minimum Grade of C AND Professional level PHPT 730B Minimum Grade of C AND Professional level PHPT 730C Minimum Grade of C AND Professional level PHPT 730D Minimum Grade of C.
Restrictions: Must be enrolled in one of the

following Majors: Pharmacy

PHEL 784E - Spanish Language and Culture for Health Professionals - 3 (F)

Students will expand their knowledge of the Spanish language and culture with an emphasis on preparing them to work in health-related fields.

Prerequisites: SPAN 101 Minimum Grade of C AND SPAN 102 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 786E - Precision Medicine - 2 (F)

Study of the precision medicine biomarkers and international programs that characterize human states of health and disease, especially the NIH ALLofUS project.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 788E - Advanced Clinical Hematology Oncology Overview - 2 (S)

Provides additional education in the area of clinical oncology. Students will learn about topics not addressed in the Integrated Therapeutics course on this topic.

Prerequisites: Corequisite(s): PHPT750C.
Corequisites: PHPT750C
Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 790E - Advanced Community Pharmacy - 2

Focus on the application of community pharmacy practice topics. Rapid diagnostic testing, patient counseling, verification of prescriptions, and business aspects will be emphasized.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 791E - Pharmacy Advocacy and Leadership Development - 2 (S)

Will focus on developing the student’s leadership skills and communication skills as an advocate for the profession of pharmacy.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEL 793E - History of Pharmacy Leadership - 2 (F)

Will trace the history and people behind the transformation of pharmacy profession. Integrated will be insights on leadership characteristics that help facilitate transformation.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy, Must be enrolled in one of the following Levels: Professional

PHEL 794E - Post-Graduate Training Preparation - 1

Introduction to clinical pharmacy careers with an emphasis on how to prepare for, apply to, and complete post-graduate training, with an emphasis on residency training.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy, Must be enrolled in one of the following Levels: Professional

Pharmacy Experiential Ed. (PHEP)

PHEP 719A - Personal and Professional Development I - 2 (F)

One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEP 719B - Personal and Professional Development II - 1 (S)

One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEP 739A - Personal and Professional Development III - 3 (F)

One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEP 739B - Personal and Professional Development IV - 3 (S)

One of a six-course sequence where students gain personal and professional skills and participate in experimental learning necessary in their development as well-rounded healthcare professionals.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEP 751 - Essentials of Research Application - 1 (S)

Review of basic research principles (from idea creation to writing conclusion) in preparation for the Advanced Pharmacy Practice Experience (APPE) research application rotation.

Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy

PHEP 759A - Personal and Professional Development V - 1 (F)

One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEP 759B - Personal and Professional Development VI - 1 (S)

One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEP 780 - Advanced Pharmacy Practice Experience: Community Pharmacy - 6 (FMS)

To place students in a community pharmacy practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience.

Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy

PHEP 781 - Advanced Pharmacy Practice Experience: Hospital Pharmacy - 6 (FMS)

To place students in a hospital practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience.

Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy

PHEP 782 - Advanced Pharmacy Practice Experience: Ambulatory Care - 6 (FMS)

To place students in an ambulatory care practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience.

Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy

PHEP 783 - Advanced Pharmacy Practice Experience: Acute Care/ General Medicine - 6 (FMS)

To place students in an acute care setting where they can apply their didactic knowledge, develop core competencies, and gain patient care experience.

Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy

PHEP 784 - Advanced Pharmacy Practice Experience: Specialized Practice - 6 (FMS)

To place students in a specialized practice environment where they can apply their didactic knowledge, develop core competencies, and gain practical experience.

Restrictions: Must be enrolled in one of the

following Colleges: School of Pharmacy

PHEP 789 - Advanced Pharmacy Practice Experience: ImPaCT (Improving Patient Care for Tomorrow) - 3 (FMS)

The ImPaCT experience requires the student to develop and complete a scholarly pharmacy related project.

Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy

PHEP 795 - Independent Study - 0 to 4 (FS)

Research and study in an area of interest in pharmaceutical sciences or pharmacy practice. May be repeated for a maximum of four hours.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHEP 799C - Pharmacy Co-Curricular Experience: Community - 0 (FMS)

An entry-level pharmacy intern experience in community or health system pharmacy. Options for participation in other practice settings such as long term or home IV therapy are also offered. Students develop distribution and professional communication skills including patient counseling; apply patient care skills to the treatment of various patient populations; provide drug information; conduct medication usage reviews; participate as a member of an interdisciplinary health care team; develop IV preparation skills.

Attributes: COOP
Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy
Registration Consent: Instructor

PHEP 799H - Pharmacy Co-Curricular Experience: Health System - 0 (FMS)

An entry-level pharmacy intern experience in community or health system pharmacy. Options for participation in other practice settings such as long term care or home IV therapy are also offered. Students develop distribution and professional communication skills including patient counseling; apply patient care skills to the treatment of various patient populations; provide drug information; conduct medication usage reviews; participate as a member of an interdisciplinary health care team; develop iv preparation skills.

Attributes: COOP
Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy
Registration Consent: Instructor

PHEP 799L - Pharmacy Co-Curricular Experience: Long Term Care - 0 (FMS)

An entry-level pharmacy intern experience in community or health system pharmacy. Options for participation in other practice settings such as long term care or home iv therapy are also offered. Students develop distribution and professional communication skills including patient counseling; apply patient care skills to the treatment of various patient populations; provide drug information; conduct medication usage reviews; participate as a member. Prerequisite: Enrolled in Pharmacy school.

Attributes: COOP
Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy
Registration Consent: Instructor

PHEP 799O - Pharmacy Co-Curricular Experience: Other Practice Settings - 0 (FMS)

An entry-level pharmacy intern experience in community or health system pharmacy. Options for participation in other practice settings such as long term care or home IV therapy are also offered. Students develop distribution and professional communication skills including patient counseling; apply patient care skills to the treatment of various patient populations; provide drug information; conduct medication usage reviews; participate as a member of an interdisciplinary health care team; develop IV preparation skills. Prerequisite: Enrolled in Pharmacy School.

Attributes: COOP
Restrictions: Must be enrolled in one of the following Colleges: School of Pharmacy
Registration Consent: Instructor

PHEP 799S - Pharmacy Specialization - 0

Provides focused learning in specialized areas of

pharmacy to prepare for advanced training and expand career opportunities

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

Philosophy (PHIL)

PHIL 490 - Philosophy Seminar - 3 (FS)

Seminar for qualified Philosophy majors and graduate students to pursue specific topics, traditions, or philosophers in depth. Variable content. May be repeated to a maximum of 12 hours so long as no topic is repeated. Prerequisite: 15 hours in Philosophy or consent of instructor.

Prerequisites: 15 hours of PHIL 100-400 level

PHIL 495 - Independent Readings - 1 to 3 (S)

Independent study on tutorial basis. Undergraduate students normally limited to 3 hours; graduate students normally limited to 9 hours. Requires consent of department chair or program director.

Registration Consent: Instructor and Dept Chair

PHIL 497 - Topics in Metaphysics and Epistemology - 3

Variable content course. May include topics in ontology, theory of knowledge, philosophy of language, philosophy of mind, philosophy of science, or philosophy of mathematics.

Attributes: BHUM

PHIL 498 - Legal Theory - 3

Explores contemporary legal theory. Emphasis on law and morality; law and society; law and economics; judicial discretion; and fundamental doctrines and principles of a legal system. Same as POLS 498

Attributes: BSS, SS
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Philosophy,Political Science, Must be assigned one of the following Student Attributes: Honors SIU Law Guarantee Admit

Pharmacy Practice (PHPR)

PHPR 710 - Biomedical Literature Evaluation - 3 (S)

Addresses process of critically reviewing biomedical and pharmaceutical literature by analyzing statistics and research design. Principles of outcomes research covered. Prerequisite: open to pharmacy students only or by consent of department chair.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 711 - Drug Information - 1 (F)

Focuses on drug information resources and medication safety. Emphasis is on developing abilities to retrieve literature and utilize resources for pharmacy practice.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 713N - Self-Care and Alternative Medicines - 3 (S)

Study of nonprescription medicines and dietary supplements used for self-care. Emphasis will be placed on selection of the appropriate nonprescription medication and patient counseling.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 717 - Patient-Centered Communication: From Theory to Practice - 1 (F)

Focuses on the development of patient and provider communication skills within health care settings.

Restrictions: Must be enrolled in one of the following Levels: Professional, Must be enrolled in one of the following Colleges: School of Pharmacy

PHPR 718A - Pharmacy Skills Lab I - 1 (F)

Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy
Registration Consent: Advisor

PHPR 718B - Pharmacy Skills Lab II - 1 (S)

Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 735N - Physical Assessment and Patient Care Skills - 2 (F)

Develops physical assessment, laboratory test interpretation and patient care skills for drug therapy and disease state management.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 738A - Pharmacy Skills Lab III - 1 (F)

Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 738B - Pharmacy Skills Lab IV - 1 (S)

Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 744 - Health Promotion and Literacy - 2 (S)

Prepare to provide care to a diversity of individuals by understanding and respecting differences including attention to health literacy concerns.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 758A - Pharmacy Skills Lab V - 1 (F)

Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPR 758B - Pharmacy Skills Lab VI - 1 (S)

Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

Pharmaceutical Science (PHPS)

PHPS 420 - Principles of Pharmacology - 4 (F)

Addresses modern pharmacology with emphasis on rational drug discovery, mechanism of drug action and toxic effects.

Prerequisites: CHEM 241A AND CHEM 241B AND CHEM 245 AND CHEM 430A AND BIOL 150 AND BIOL 151
Restrictions: Must be enrolled in one of the following Majors: Pharmaceutical Sciences
Registration Consent: Instructor and Advisor

PHPS 500 - Current Targets for Drug Discovery - 3 (F)

This course provides an understanding of current drug targets and mechanisms of action of representative drug candidates by modulation of these targets. Prerequisites: undergraduate general chemistry, organic chemistry, biology and biochemistry with grades of C or better, or consent of instructor.

Prerequisites: CHEM 241A Minimum Grade of C AND CHEM 241B Minimum Grade of C AND CHEM 245 Minimum Grade of C AND BIOL 150 Minimum Grade of C AND BIOL 151 Minimum Grade of C AND CHEM 121A Minimum Grade of C AND CHEM 121B Minimum Grade of C AND CHEM 125A Minimum Grade of C AND CHEM 125B Minimum Grade of C AND (BIOL 351 Minimum Grade of C OR CHEM 451A Minimum Grade of C)
Restrictions: Must be enrolled in one of the following Levels: Graduate

PHPS 501 - Principles of Rational Drug Discovery - 3 (S)

This course provides an understanding of the process of drug discovery from the identification/selection/validation of drug targets to

the submission of candidates for clinical trials. Prerequisites: undergraduate general chemistry, organic chemistry, biology and biochemistry with grades of C or better, or consent of instructor.

Prerequisites: CHEM 241A Minimum Grade of C AND CHEM 241B Minimum Grade of C AND CHEM 245 Minimum Grade of C AND BIOL 150 Minimum Grade of C AND BIOL 151 Minimum Grade of C AND CHEM 121A Minimum Grade of C AND CHEM 121B Minimum Grade of C AND CHEM 125A Minimum Grade of C AND CHEM 125B Minimum Grade of C AND (BIOL 351 Minimum Grade of C OR CHEM 451A Minimum Grade of C)
Restrictions: Must be enrolled in one of the following Levels: Graduate

PHPS 505 - Scientific Literature Review and Evaluation in Pharmaceutical Sciences - 1

Course focus is to prepare students to review and evaluate current, primary scientific literature. All students contribute through presentations and discussions of recent scientific literature.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PHPS 510 - Pharmaceutical Sciences Foundations and Research Methods - 1 (F)

Students will attend presentations of ongoing faculty research to aquire foundational knowledge necessary for selecting an area and conducting research in the pharmaceutical sciences.

Prerequisites: CHEM 241A Minimum Grade of C AND CHEM 241B Minimum Grade of C AND CHEM 245 Minimum Grade of C AND BIOL 150 Minimum Grade of C AND BIOL 151 Minimum Grade of C AND CHEM 121A Minimum Grade of C AND CHEM 121B Minimum Grade of C AND CHEM 125A Minimum Grade of C AND CHEM 125B Minimum Grade of C AND (BIOL 351 Minimum Grade of C OR CHEM 451A Minimum Grade of C)
Restrictions: Must be enrolled in one of the following Levels: Graduate

PHPS 515 - Principles of Biostatistics for the Pharmaceutical Sciences - 3

Pharmaceutical Sciences graduate students will learn the basic principles of biostatistics for drug discovery applications.

Restrictions: Must be enrolled in one of the following Majors: Pharmaceutical Sciences, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor and Dept Chair

PHPS 539 - Evolutionary Medicine - 3 (F)

Focus is on evolutionary (Darwinian) medicine which is the application of modern evolutionary theory to understanding human health and disease.

Restrictions: Must be enrolled in one of the following Levels: Graduate; Professional
Registration Consent: Instructor and Advisor

PHPS 540 - Pharmacokinetics - 3 (S)

Pharmacokinetic modeling and its application to optimization in drug discovery research. Focus is primarily from the industrial perspective. Prerequisites: undergraduate organic chemistry, physical chemistry, calculus, differential equations, and linear algebra.

Prerequisites: CHEM 241A AND CHEM 241B AND CHEM 245 AND CHEM 361A AND CHEM 361B AND MATH 150 AND MATH 152 AND MATH 153 AND MATH 305 AND MATH 321
Restrictions: Must be enrolled in one of the following Levels: Graduate

PHPS 541 - Biopharmaceutics - 3

This course provides an understanding of the processes involved in drug administration and absorption. The pharmaceutical aspects of the major routes of administration are reviewed. Prerequisites: undergraduate organic chemistry, physical chemistry, calculus, differential equations, and linear algebra.

Prerequisites: CHEM 241A AND CHEM 241B AND CHEM 245 AND CHEM 361A AND CHEM 361B AND MATH 150 AND MATH 152 AND MATH 153 AND MATH 305 AND MATH 321
Restrictions: Must be enrolled in one of the following Levels: Graduate

PHPS 595 - Graduate Seminar in the

Pharmaceutical Sciences - 1 (FS)

An advanced level seminar course required for all graduate students.

Restrictions: Must be enrolled in one of the following Levels: Graduate

PHPS 598 - Pharmaceutical Sciences Research - 1 to 3 (FMS)

Research under the direction of a faculty member. Ten hours are required for completion of the MS degree.

Prerequisites: CHEM 121A Minimum Grade of C AND CHEM 121B Minimum Grade of C AND CHEM 125A Minimum Grade of C AND CHEM 125B Minimum Grade of C AND BIOL 150 Minimum Grade of C AND BIOL 151 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Advisor

PHPS 599 - Pharmaceutical Sciences Thesis Preparation - 1 to 3 (MS)

This course provides time for the students to write a thesis. Three hours are required for the completion of the MS Degree.

Prerequisites: CHEM 121A Minimum Grade of C AND CHEM 121B Minimum Grade of C AND CHEM 125A Minimum Grade of C AND CHEM 125B Minimum Grade of C AND BIOL 150 Minimum Grade of C AND BIOL 151 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

PHPS 600 - Dissertation Research - 1 to 10 (FS)

Doctoral student research under the direction of a faculty member.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Advisor

PHPS 700 - Principles of Drug Action I - 4 (F)

Discussion of chemical and physical properties relating to drug action. Emphasis on absorption, distribution, metabolism, and elimination of drugs, receptors theory, and mechanisms of action.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPS 701 - Principles of Drug Action II - 2 (S)

Addresses toxicology and mechanisms of drug actions in endocrine and cardiovascular systems. Emphasis is placed on anatomy and physiology, disease states, and drug actions.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPS 702 - Biochemical Principles of Pharmacy - 3 (F)

Addresses chemical and molecular biology basis for drug action and human diseases. Biochemical pathways, enzyme structure and regulation, metabolism of nutrients and food constituents covered.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPS 703 - Principles of Pharmacogenomics - 2 (S)

Addresses techniques of molecular biology and pharmacogenomic principles applied to human disease states. Emphasized pathological states where therapeutic drug intervention exists or might be developed. Prerequisite: open to pharmacy student only or by consent of department chair.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPS 704 - Biopharmaceutics and Drug Delivery I - 2 (F)

Addresses drug absorption process, Fickian mass transport concepts and mathematical models. Common dosage forms and delivery systems are also presented.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPS 705N - Biopharmaceutics and Drug Delivery II - 3 (S)

Addresses drug product preformulation, formulation, and manufacture including influence on patient

product performance. Physicochemical factors relevant to drug administration, problem solving, and patient counseling emphasized.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPS 707N - Pharmacy Calculations - 1 (S)

Addresses the mathematical skills necessary for pharmacy practice.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPS 712 - Immunology and Immunization Training - 3 (S)

A study of principles of immunology, host responses to microbial infections/tumors, allergic reactions, autoimmune diseases, transplantations and appropriate vaccination strategies to improve public health.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPS 720N - Pharmacokinetics - 3 (F)

Addresses mathematical and clinical basis for understanding drug absorption, distribution, metabolism, and elimination. The mathematical modeling for determining patients' drug dosage regimens is covered.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

Pharmacotherapeutics (PHPT)

PHPT 730A - Integrated Pharmacotherapeutics I - 4 (F)

Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPT 730B - Integrated Pharmacotherapeutics II - 4 (F)

Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPT 730C - Integrated Pharmacotherapeutics III - 4 (S)

Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPT 730D - Integrated Pharmacotherapeutics IV - 4 (S)

Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPT 750A - Integrated Pharmacotherapeutics V - 4 (F)

Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPT 750B - Integrated Pharmacotherapeutics VI - 4 (F)

Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust

pharmaceutical care plans for patients.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPT 750C - Integrated Pharmacotherapeutics VII - 4 (S)

Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

PHPT 750D - Integrated Pharmacotherapeutics VIII - 4 (S)

Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.

Restrictions: Must be enrolled in one of the following Majors: Pharmacy

Physics (PHYS)

PHYS 405A - Introduction to Electromagnetic Field Theory - 3

Vector treatment of the theory. (A) Electrostatics in vacuum and in matter; steady currents.

Attributes: PS
Prerequisites: PHYS 321 Minimum Grade of C OR PHYS 323 Minimum Grade of C

PHYS 405B - Introduction to Electromagnetic Field Theory - 3

Vector treatment of the theory. Magnetism; magnetic materials; electromagnetic radiation.

Attributes: PS
Prerequisites: PHYS 405A Minimum Grade of C

PHYS 406 - Electromagnetic Fields - 4 (aS)

Vector calculus, electric and magnetic fields. Scalar potential. Electric and magnetic dipoles. Maxwell's equations in integral and differential form, vector potential, introduction to electromagnetic radiation.

Attributes: BPS
Prerequisites: PHYS 152 Minimum Grade of C AND PHYS 251 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Computer Science,Civil Engineering,Electrical Engineering,Industrial Engineering,Mechanical Engineering,Physics

PHYS 410 - Optics - 3 (aF)

Nature of light; photometric quantities; geometrical optics; interference and diffraction; polarization; introduction to lasers; optical properties of materials. May include laboratory component.

Attributes: BPS
Prerequisites: PHYS 201 Minimum Grade of C and PHYS 201L Minimum Grade of C and PHYS 251 Minimum Grade of C and MATH 305 Minimum Grade of C, or Graduate status in Electrical Engineering.

PHYS 415A - Wave Mechanics & Atomic Physic - 3

Foundations of quantum mechanics: Wave functions; expectation values; operators; Schroedinger equation; simple applications including step potentials and harmonic oscillator, and perturbation theory.

Attributes: PS
Prerequisites: (PHYS 302 OR PHYS 304) AND MATH 305

PHYS 415B - Wave Mechanics & Atomic Physic - 3

Topics in atomic and molecular systems: Angular momentum; electron spin; hydrogen atom; atomic transitions and spectra; exclusion principle; multi-electron atoms; and molecular structure.

Attributes: PS
Prerequisites: PHYS 415A

PHYS 416 - Principles Quantum Mechanics - 4 (F)

Wave functions, packets, probabilities,

eigenfunctions, operators, uncertainty relations, Schrodinger equation, square wells, harmonic oscillator, barriers, angular momentum, hydrogen atom, spin, identical particles, exclusion principle, applications.

Attributes: BPS, PS
Prerequisites: PHYS 304 Minimum Grade of C AND (PHYS 321 Minimum Grade of C OR PHYS 323 Minimum Grade of C) AND (MATH 321 Minimum Grade of C OR MATH 355 Minimum Grade of C)

PHYS 419 - Intro to Theoretical Physics - 4

Mathematical techniques: Vectors, tensors, matrices, differential equations, special function, boundary value problems; other selected topics.

Attributes: PS
Prerequisites: (PHYS 302 OR PHYS 304) AND MATH 305

PHYS 430 - Physics and Astronomy Education Research - 3

Questions, methodology, data analysis, and results of physics and astronomy education research.

Attributes: PS
Prerequisites: PHYS 201 Minimum Grade of C AND PHYS 201L Minimum Grade of C AND PHYS 251 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

PHYS 431 - Instructional Strategies for Particle & Rigid Body Motion - 3

Pedagogical innovations, assessments, and inquiry based activities will be developed for particle and rigid body motion. Addresses Illinois professional teaching physics designation standard #2.

Attributes: PS
Prerequisites: (PHYS 211A OR PHYS 151) AND CI 200 Minimum Grade of C OR CIED 100 Minimum Grade of C

PHYS 432 - Instructional Strategies for Physical Waves & Thermodynamics - 3

Pedagogical innovations, assessments and inquiry based activities will be developed for physical waves and thermodynamics. Addresses Illinois professional teaching physics designation #3 and #4.

Attributes: PS
Prerequisites: PHYS 303 AND CI 200 Minimum Grade of C OR CIED 100 Minimum Grade of C

PHYS 433 - Instructional Strategies for Electricity & Magnetism - 3

Pedagogical innovations, assessments, and inquiry based activities will be developed for particle and rigid body motion. Addresses Illinois professional teaching physics designation standard #2.

Attributes: PS

PHYS 434 - Instructional Strategies for Astronomy - 3

Pedagogical innovations, assessments, and inquiry based activities will be developed for astronomy. Addresses Illinois professional teaching earth and space science standards #3 and #4.

Attributes: PS

PHYS 438 - Physics & Astronomy Education Research Seminar - 1

Seminar discussing current issues in physics and astronomy education research. May be repeated to a maximum of 4 hours provided no topic is repeated.

Attributes: PS

PHYS 439 - Physics Project for Educators - 1 to 3

Physics curriculum development project with the topic and educational level decided in consultation with the instructor. Not for physics undergraduate majors. Requires teaching certificate or instructor permission.

Attributes: PS

PHYS 450 - Solid-State Physics - 3

Crystal structures and binding; lattice vibrations; electronic states; band theory of solids; semiconductors; optical properties of solids; other selected topics.

Attributes: BPS
Prerequisites: PHYS 323 Minimum Grade of C AND PHYS 304 Minimum Grade of C
Corequisites: PHYS416

PHYS 471 - Laser Physics and Technology - 3

Interaction between light and matter, rate equations, resonators and cavity modes, mode locking, ultra-short pulse generation, laser systems. Applications may include communications, medicine, holography.

Attributes: BPS
Prerequisites: (PHYS 201 Minimum Grade of C AND PHYS 201L Minimum Grade of C AND PHYS 251 Minimum Grade of C AND PHYS 410 Minimum Grade of C) OR (Graduate level PHYS 410 Minimum Grade of C)
Restrictions: Must be enrolled in one of the following Majors: Electrical Engineering,Physics

PHYS 472 - Photonics Laboratory - 3

Experimental techniques in photonics. May include: beam characterization, detectors, interferometers, optical fiber theory and applications, , coupling techniques, and fiber-optic communication.

Attributes: BPS, EL
Prerequisites: (PHYS 201 Minimum Grade of C AND PHYS 201L Minimum Grade of C AND PHYS 251 Minimum Grade of C AND PHYS 410 Minimum Grade of C) OR (Graduate level PHYS 410 Minimum Grade of C)
Restrictions: Must be enrolled in one of the following Majors: Electrical Engineering,Physics

PHYS 480 - Selected Topics in Physics - 2 to 3

Classroom instruction in topic of special interest not covered in other courses. May be repeated to a maximum of 6 hours as long as no topic is repeated. Requires consent of instructor.

Attributes: PS
Registration Consent: Instructor

PHYS 504 - Applications of Fiber Optics - 3

Optical fiber characteristics; fiber preparation; single and multimode fibers; sources; coupling; communication systems; multiplexing techniques; fiber-optic sensors. Requires Graduate status or consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PHYS 506 - Experimental Methods in Optics - 3

Experimental techniques in optics spectroscopy including absorption, fluorescence, and index of refraction spectroscopy; measurements of non-linear optical properties of materials using several techniques. Prerequisites: PHYS 410 or PHYS 514.

Prerequisites: PHYS 410 OR Graduate level PHYS 514 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

PHYS 514 - Photonics I - 3

Ray and wave optics; Gaussian beams; Fourier optics; diffraction; imaging; holography; electromagnetic waves in dielectric media; polarization; and crystal optics. Prerequisite: PHYS 410 or consent of instructor.

Prerequisites: PHYS 410.
Restrictions: May not be enrolled as the following Levels: Undergraduate

PHYS 515 - Photonics II - 3

Concepts governing applications of current interest in photonics including waveguides and fiber optics, electro-optics and acousto-optics, photonic switching and computing. Prerequisites: PHYS 514 or consent of instructor.

Prerequisites: PHYS 514.
Restrictions: May not be enrolled as the following Levels: Undergraduate

PHYS 516 - Independent Study - 2 to 3

Supervised study in an area selected according to needs of the student. May be repeated for a maximum of 6 hours provided that no topic is repeated. Requires consent of instructor

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PHYS 517 - Principles of Lasers - 3

Population inversion, rate equations, laser resonators, q-switching, mode locking, gas lasers, solid state lasers, semiconductor lasers, dye lasers, laser applications in communications, medicine, and holography. Prerequisite: PHYS 514 or consent of instructor.

Prerequisites: Graduate level PHYS 514 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

PHYS 518 - Nonlinear Optics - 3

Maxwell's equations in nonlinear media, second-order nonlinearities, second-harmonic generation, parametric processes, third-order nonlinearities, Kerr-type nonlinearities, Raman amplification, two-photon absorption, and nonlinear crystals. Prerequisites: PHYS 512 and PHYS 513 or consent of instructor.

Prerequisites: Graduate level PHYS 512 Minimum Grade of C AND Graduate level PHYS 513 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

PHYS 520 - Graduate Physics Project - 2 to 4

Individual investigation of a topic to be agreed upon with the instructor. May be experimental or theoretical. May be repeated for a maximum of 6 hours provided that no topic is repeated. Requires consent of instructor

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PHYS 575 - Colloquium - 1

Participation in departmental colloquia; student presentation on topic of current interest. May be repeated for a maximum of 2 hours provided that no topic is repeated. Prerequisite: Consent of instructor

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PHYS 580 - Selected Topics in Physics - 2 to 4

Classroom instruction in a topic of special interest not covered in other graduate courses. May be repeated for a maximum of 8 hours provided that no topic is repeated. Prerequisite: Consent of instructor

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PHYS 594 - Physics Teaching Methods For Secondary Schools - 3

Current teaching and resource materials. Ways to teach different topics in physics, problem-solving techniques and societal issues. Preparing for laboratory activities. Safety concerns.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PHYS 598 - Advanced Research Project in Physics - 1 to 6

Restrictions: Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

PHYS 599 - Thesis - 1 to 6

Thesis research in physics. May be repeated for a maximum of 6 hours. Requires consent of instructor

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Political Science (POLS)

POLS 429 - Topics in Public Admin - 1 to 3

Selected administrative problem or process; content may vary from semester to semester. For advanced undergraduates and graduates. May be repeated to maximum of 6 hours. Requires completion of stated prerequisites or consent of instructor.

Attributes: BSS
Prerequisites: POLS 320.

POLS 440 - African American Politics - 3

Examination of the politics of African Americans.

Description and analysis of the affect of political officials and institutions on African Americans and vice versa.

Attributes: BSS, ERGU, EUSC
Prerequisites: POLS 112.

POLS 441 - Women and Politics in America - 3 (S)

Consideration of politics and power in gender roles, family, class, occupation and research, women and the political system and women and public policy. Same as WMST 441.

Attributes: BSS, ERGU, EUSC, IS
Prerequisites: Complete all Foundations Requirements.

POLS 444 - Political Scandals in American Politics - 3

Students learn what constitutes a scandal, how differing types of scandals progress, how to analyze and perform case studies about scandals, and the overall effects of scandals on American politics. Requires the stated prerequisite or consent of instructor.

Attributes: BSS
Prerequisites: POLS 112.

POLS 445 - Voting and Elections - 3

Political legal, sociological, psychological bases of voting behavior; theories of electoral outcomes and consequences. Requires completion of stated prerequisites or consent of instructor.

Attributes: BSS
Prerequisites: POLS 112.

POLS 446 - Gay and Lesbian Politics - 3

This course provides a contextual investigation into the role of lesbian, gay, bisexual, transgender, queer, intersex, and allies (LGBTQIA) in government & society as a political minority. Requires completion of the stated prerequisite or consent of instructor.

Attributes: BSS, EREG, ERGU, EUSC, IS
Prerequisites: Complete all Foundations Requirements. POLS 112 minimum grade of C.

POLS 448 - Media and Politics - 3

This course explores how news media shape, influence, and respond to American politics. We explore implications of the structure of news media and the relationship between it and politicians.

Attributes: SS

POLS 449 - Topics in American Politics - 1 to 3 (FS)

Selected topics in American politics; content may vary from semester to semester. For advanced undergraduate and graduate students. May be repeated to maximum of 6 hours. Requires completion of stated prerequisites or consent of instructor.

Attributes: BSS
Prerequisites: POLS 112.

POLS 451 - Comparative Law and Courts - 3

An introduction to comparative judicial systems and study of the interaction between law, courts and politics in countries throughout the world.

Attributes: BSS

POLS 454 - Comparative Race & Ethnic Politics - 3

The course considers race and ethnic politics from a global, comparative perspective and draws on academic literature and empirical examples from many different parts of the world. Students learn about race, ethnicity, and theoretical frames through which political scientists study these concepts.

Attributes: EREG, IS
Prerequisites: Complete all Foundations Requirements.

POLS 459 - Topics in Comparative Politics - 1 to 3 (aF)

Selected topics in comparative politics; content may vary from semester to semester. Primarily for advanced undergraduate and graduate students. May be repeated to a maximum of 6 hours.

Attributes: BSS, EGC

POLS 472 - International Organizations - 3

Past and present international organizations, origins, structure, decision making processes, functioning of United Nations and its specialized agencies, problems and prospects. Requires completion of stated prerequisites or consent of instructor.

Attributes: BSS, EGC, EREG
Prerequisites: POLS 270 OR POLS 370.

POLS 473 - United States Foreign Policy - 3

Formulation, implementation, content, general policy patterns, international, domestic sources, policy instruments, regional dimensions and implications. Requires completion of stated prerequisites or consent of instructor.

Attributes: BSS, EGC
Prerequisites: POLS 270 OR POLS 370.

POLS 474 - Political Violence on the International Stage - 3

This course explores dominant forms of violence on the international stage, in the 21st century. The course takes as its point of departure, the well-established assertion that conflict between countries is an increasingly rare phenomenon at present. However, it does not mean that we live in an inherently more peaceful world today. Many other forms of violence have usurped inter-state conflict. Some of these are located at the intra-state level, while others, usually carried out by non-state actors, have transnational dimensions. This course aims to explore myriad different forms of conflict including civil war, political violence, terrorism and violence associated with illicit economic activities.

Attributes: EREG

POLS 479 - Topics International Relations - 1 to 3 (aF)

Selected topics in international relations; content may vary from semester to semester. For advanced undergraduate or graduate students. May be repeated to maximum of 6 hours. Requires completion of stated prerequisites or consent of instructor.

Attributes: BSS, EGC
Prerequisites: POLS 370

POLS 484 - Classical Political Theory - 3

Works of major political thinkers from ancient times to the renaissance, including Plato, Aristotle, St. Augustine, St. Thomas, and Machiavelli. Same as PHIL 440.

Attributes: BHUM, EGC

POLS 485 - Modern Political Theory - 3

Works of major political thinkers from the renaissance to the present, including Hobbes, Locke, Rousseau, Hegel, Marx, Mill, and Nietzsche. Cross-listed with PHIL 441.

Attributes: BHUM, EGC

POLS 491 - The Supreme Court - 3

In this course, students understand the processes and influences of cases before the United States Supreme Court: petition, briefing (including amicus curiae), oral argument, and judgment.

Attributes: SS
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Philosophy,Pre-Law,Political Science

POLS 495 - Constitutional Law: Powers of Government - 3 (F)

Analyzes Supreme Court decisions regarding judicial, legislative, and executive power and the relationship between states and federal government in a range of policy areas.

Attributes: BSS, ERGU, EUSC
Prerequisites: POLS 112 or graduate status.

POLS 496 - Constitutional Law: Civil Rights and Civil Liberties - 3 (S)

Analyzes Supreme Court decisions dealing with individual rights, particularly free speech and press, religion, rights of criminal defendants, voting, Constitutional protections against race and sex discrimination.

Attributes: BSS, ERGU, EUSC
Prerequisites: POLS 112 or graduate status.

POLS 497 - Environmental Law - 3 (F)

Principal issues in environmental law and the judicial interpretation of important environmental statutes. Same as ENSC 402.

Attributes: BSS
Prerequisites: POLS 112 OR ENSC 220.

POLS 498 - Legal Theory - 3

Explores contemporary legal theory; emphasis on law and morality; law and society; law and economics; judicial discretion; and fundamental doctrines and principles of a legal system. Cross-listed with PHIL 498.

Attributes: BSS, HUM, SS
Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Philosophy,Political Science, Must be assigned one of the following Student Attributes: Honors SIU Law Guarantee Admit

POLS 499 - Topics in Public Law - 3

Selected topics in public law; content may vary from semester to semester. For advanced undergraduates and graduates. May be repeated to maximum of 6 hours.

Attributes: BSS

POLS 510 - Readings in Political Science - 1 to 8 (FM)

Individualized program designed by instructor and student. Normal assignment is 1000 pages per credit hour; requirements determined prior to registration. May be repeated to a maximum of 8 hours. Not more than 6 hours may apply to degree. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

POLS 599 - Thesis - 1 to 6

Supervised individual research on selected and approved topic. May be repeated to a maximum of 6 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Psychology (PSYC)

PSYC 407 - Multicultural Issues in Psychology - 3 (FS)

Students will develop a critical framework for working at the concept of "culture" in contemporary America. Students will explore how culture impacts psychological services.

Attributes: EUSC, SS
Prerequisites: PSYC 111

PSYC 409 - History & Systems of Psychology - 3 (FS)

Important antecedents of contemporary scientific psychology; issues, conceptual development, major schools and systems.

Attributes: BSS
Prerequisites: PSYC 111

PSYC 411 - Psychology of Sustainable Behavior - 3 (MS)

To explore why people do or do not do the things they should related to the environment. Specifically, it is regarding how psychology can help us understand, predict and change sustainable behavior.

Attributes: BSS
Prerequisites: PSYC 111 Minimum Grade of C

PSYC 412 - Exploring Strange Things: ESP, UFOs, Bigfoot, & More - 3

Critical thinking, scientific skepticism, and investigations about parapsychology (e.g., extrasensory perception, telekinesis) and the psychology of belief about paranormal topics (e.g., alien abductions, cryptozoology).

Attributes: BSS

PSYC 413 - Pseudoscience in Psychology - 3 (MS)

Skepticism; debunking common psychology myths; critical thinking about the distinction between

science and pseudoscience. Why do people believe strange things?

Attributes: BSS
Prerequisites: PSYC 111 (concurrency allowed)

PSYC 420 - Applied Behavior Analysis - 3 (MS)

Learning principles, evaluation methods, techniques of managing and modifying human behavior, based upon operant and respondent conditioning.

Attributes: SS
Prerequisites: PSYC 111

PSYC 421 - Psychological Tests & Measure - 3 (FMS)

Principles of psychological measurement, test construction and evaluation; problems in assessment and prediction.

Attributes: SS
Prerequisites: PSYC 220

PSYC 422 - Data Analysis with SPSS - 3

Comprehensive overview of SPSS. Focus on creating databases, analyzing data and interpreting results. Build students' confidence in using the software on their own.

Attributes: SS
Prerequisites: PSYC 220 Minimum Grade of C OR PSYC 221 Minimum Grade of C.

PSYC 431 - Psychopathology - 3 (FMS)

Overview of psychological disorders like those described in the most recent edition of the DSM.

Attributes: BSS
Prerequisites: PSYC 111 Minimum Grade of C

PSYC 473 - Personnel Psychology - 3 (F)

Psychological principles and techniques used in job selection, placement, training, employee evaluation.

Attributes: SS
Prerequisites: PSYC 320 OR MGMT 341.

PSYC 474 - Organizational Psychology - 3 (S)

Relationship between organizational functioning and job satisfaction, motivation, performance, and psychological climate in work setting.

Attributes: SS
Prerequisites: PSYC 320.

PSYC 478 - Psychology of Stress and Stress Management - 3 (M)

Physiological, psychological, social, and organizational factors involving stress, are covered, as are theories and models of stress and stress management.

Attributes: BSS
Prerequisites: PSYC 111 Minimum Grade of C

PSYC 491 - Research & Experiential Learning in Psychology - 1 to 6 (FMS)

Research under faculty supervision. May be repeated for a total of 27 hours; only 9 hours of PSYC 491, PSYC 493 and PSYC 496 (no more than 6 hours in any one course) may be applied toward major in Psychology, 3 hours toward minor in Psychology. Requires consent of instructor and GPA above 2.5.

Attributes: SS
Registration Consent: Instructor

PSYC 495 - Selected Topics in Psychology - 3 (MaS)

Offered occasionally when needed. May be repeated to a maximum of 9 hours so long as no topic is repeated.

Attributes: SS

PSYC 507 - Multicultural Counseling and Psychotherapy - 3 (M)

This course is focused on broadly defined multicultural issues in counseling and psychotherapy, with emphasis placed on becoming an effective multicultural counselor/psychotherapist via increased awareness.

Restrictions: Must be enrolled in one of the following Majors: Psychology, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

PSYC 514 - Advanced Biopsychology - 3 (S)

Advanced study of biological foundations of behavior; structure and function of brain related to personality behavior, and health.

Prerequisites: PSYC 314
Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 520 - Research Design & Inference I - 3 (F)

Research methods; philosophy of science; research writing; review of basic statistics; using computer for statistical analysis and research writing. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 521 - Research Design & Inference II - 3 (S)

Design, analysis and interpretation of experimental research designs including anova, ancova, and trend analysis; design, analysis, and interpretation of field research; multiple regression. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Psychology,Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 523 - Practicum in Clinical Adult Psychology - 1 to 6 (FMS)

Practicum experience in professional setting under staff supervision. May be repeated to a maximum of 12 hours.

Prerequisites: Graduate level PSYC 538 Minimum Grade of C AND Graduate level PSYC 543B Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 524 - Practicum Clinical Child/School Psych - 1 to 12 (FMS)

Practicum experience in professional setting under staff supervision.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 525 - Practicum Industrial/Organization Psych - 1 to 6 (FM)

Practicum experience in professional setting under staff supervision. May be repeated to a maximum of 12 hours.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 527 - Practicum: Teaching Psychology - 1 to 6 (FS)

Practicum teaching experience in professional setting under staff supervision. May be repeated to a maximum of 12 hours.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 531 - Advanced Psychopathology - 3 (F)

Provides a general survey of the field of adult psychopathology. Course also focuses on use of the current version of the DSM. Prerequisites: PSYC 431; graduate standing in psychology.

Prerequisites: PSYC 431.
Restrictions: Must be enrolled in one of the following Departments: Psychology, May not be enrolled as the following Levels: Undergraduate

PSYC 535 - Cognitive Behavior Psychotherapy - 3 (S)

Review the theory, research and application of cognitive behavioral psychotherapy. Specific treatment programs designed to treat various disorders will be reviewed. Requires consent of

instructor.

Prerequisites: Graduate level PSYC 531 Minimum Grade of C OR Graduate level PSYC 533 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 537A - Counseling & Psychotherapy with Adolescents & Family - 3 (F)

Psychotherapeutic approaches, methods, and procedures with children, adolescents, and families. Developmental approach and multicultural perspective.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 537B - Counsel & Psychotherapy Adult - 3 (F)

Major approaches. Aspects of therapeutic situation and changes during psychotherapy with adults. Evaluation of both theory and practice.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 538 - Group Counseling and Psychotherapy - 3 (S)

Current theory and research in group, family, and marital therapy.

Prerequisites: Graduate level PSYC 537A Minimum Grade of C OR Graduate level PSYC 537B Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 539 - Crisis Intervention & Crisis Therapy - 3 (M)

Crisis theory and intervention strategies for major situational and developmental life crises. Prerequisite: Graduate standing in Psychology or instructor approval.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PSYC 541A - Cognitive Assess Children & Adolescents - 3 (F)

Administration and interpretation of psychological measures to assess cognitive abilities in youth, including the exceptional child. Developmental approach and multicultural perspective.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 541B - Cognitive Assessment Adult - 3 (F)

Training in administration/interpretation of psychological techniques used to assess cognitive abilities.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 543A - Behavioral & Emotional Assessment of Children & Adolescents - 3 (S)

Administration and interpretation of psychological measures to assess behavior and emotion in youth, including the exceptional child. Developmental approach and multicultural perspective.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 543B - Personality Assessment Adult - 3 (S)

Theory underlying use of objective and projective methods of assessing adult personality. Application of techniques to personality; clinical diagnosis; research.

Prerequisites: Graduate level PSYC 541B Minimum Grade of C.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 544 - Multi-Tiered Systems of Support - 3 (S)

Assessing student, including the exceptional child, response to intervention, single-case study design, and measuring progress through curriculum based measurement and other techniques.

Prerequisites: Graduate level PSYC 541A Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

PSYC 545 - Psychoeducational Assessment and Intervention - 3 (M)

Psychoeducational functioning of youth, including the exceptional child, through norm-referenced and alternative data-based methods. Empirically-validated interventions and instructional methods in reading, writing, and mathematics.

Prerequisites: Graduate level PSYC 541A Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Majors: Psychology,School Psychology, Must be enrolled in one of the following Levels: Graduate

PSYC 550 - Ethical and Professional Issues in Psychology - 3 (M)

Ethical and professional issues in the field of psychology, especially as outlined in the Code of Ethics of the American Psychological Association.

Restrictions: Must be enrolled in one of the following Majors: Psychology,School Psychology, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

PSYC 553 - Seminar in Clinical Child Psychology: Psychopathology of Children & Families - 3 (S)

Theories of childhood psychopathology; typical psychological disorders; therapeutic interventions.

Restrictions: Must be enrolled in one of the following Majors: Psychology,School Psychology,Psychology (Teaching),Psychology, May not be enrolled as the following Levels: Undergraduate

PSYC 556 - Seminar in Community Psychology: Prevention Programs for Children & Families - 3 (M)

Review and development of intervention programs in social systems that promote wellness and prevent psychopathology in children and their families. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Psychology,School Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 557 - Seminar in Developmental Psychology: Infancy & Early Childhood - 3 (F)

Developmental principles and theories; normal and atypical development; assessment methods; intervention approaches.

Prerequisites: PSYC 201.
Restrictions: Must be enrolled in one of the following Majors: Psychology,School Psychology, May not be enrolled as the following Levels: Undergraduate

PSYC 565 - Consultation: Theory & Practice - 3 (F)

Principles and methods of consulting in schools and mental health organizations. Includes management and instructional methods for typically developing and exceptional children.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 571 - Seminar Work Motivation & Leadership - 3 (S)

Factors affecting motivation and leadership in organizations as well as their measurement, evaluation and application.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 572 - Seminar in Work Attitudes - 3 (S)

Measurement, evaluation, and consequences of different work attitudes with a specific emphasis on job satisfaction, organizational commitment, and other issues. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 573 - Seminar Personnel Psychology - 3 (F)

Research and practice of personnel psychology. Topics include employee recruitment, selection, training, and performance appraisal, job analysis and legal issues. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 574 - Seminar Organizational Psych - 3 (F)

Issues and research on interaction between person, position, and organization variable. Theoretical and practical issues; focus on individual and organization. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 575 - Seminar in Employee Selection - 3 (S)

Theory, research and practice of employee selection. Topics include selection techniques, validation, job analysis and legal issues. Requires Graduate standing in Psychology or consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Psychology,Psychology,Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 576 - Seminar Organization Develop - 3 (MS)

Early history, assumptions, concepts, and various change strategies. Human process approaches to planned change within systems framework.

Restrictions: Must be enrolled in one of the following Majors: Healthcare Informatics,Psychology, May not be enrolled as the following Levels: Undergraduate

PSYC 580 - Psychology of Employee Development - 3 (F)

Theory, research, and practice of employee training, career development, and performance appraisal.

Restrictions: Must be enrolled in one of the following Majors: Psychology,Psychology,Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 584 - Evidence-based Assessment and Intervention in Autism - 3 (S)

Best practices in the assessment of Autism Spectrum Disorder, evidence-based interventions, and progress monitoring.

Prerequisites: Graduate level PSYC 541A Minimum Grade of C AND Graduate level PSYC 543A Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 585 - Multicultural Issues in School Psychology - 3

This course will cover issues in the provision of evidence-based educational services to children in a diverse society, including privilege, oppression, bias, social justice, community-based practice, and future challenges for the profession.

Restrictions: May not be enrolled as one of the following Majors: School Psychology, May not be enrolled as the following Levels: Undergraduate

Registration Consent: Instructor and Advisor

PSYC 588 - Graduate Psych Internship - 0

Psychology-related work in a business, government or not-for-profit setting under the supervision of an employer.

Prerequisites: Minimum cumulative GPA of 3.0. Consent of Career Development Center.
Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

PSYC 589 - Graduate Psychology Co-Op - 0 (S)

Psychology-related work in a business, government or not-for-profit setting under the supervision of an employer.

Prerequisites: Minimum cumulative GPA of 3.0. Consent of Career Development Center.
Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate

PSYC 594 - Seminar in School Psychology - 3 (FM)

History, theory, and practice of school psychology; psychoeducational assessment and remediation with variety of exceptionalities. Requires Graduate standing in Psychology and completion of 24 hours or consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate

PSYC 595 - Graduate Seminar: Selected Topics - 1 to 3

Varied content. May be repeated to a maximum of 8 hours so long as no topic is repeated. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 596 - Internship in School Psychology - 5 (FS)

Professional training in school settings; full time for one academic year. Must be repeated once for a total of 10 hours. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 598 - Research Project in Clinical Child and School Psychology - 3 (S)

A paper reviewing theory and research on a topic approved and supervised by a faculty committee.

Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Clinical Child and Sch Psych,School Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

PSYC 599 - Thesis - 1 to 6 (FS)

Design and implementation of psychological research study. May be repeated to a maximum of 6 hours.

Restrictions: Must be enrolled in one of the following Majors: Psychology, May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Study Abroad (SAB)

SAB 400 - Study Abroad - 1 to 16 (S)

University approved study abroad in a country and institution of the student's choosing. For undergraduate and graduate credit. Student must be a Sophomore (30+ hours) and in good standing.

Science (SCI)

SCI 401 - Selected Topics in Physics - 2 to 4

New discoveries and/or methodologies and techniques in the field. Demonstration and laboratory experiences to support the learning process. May be repeated to a maximum of 8 hours as long as no topic is repeated. Primarily for

teachers of science. Requires consent of instructor.

Registration Consent: Instructor

SCI 405 - Selected Techniques in Physics - 2 to 4

Modern experiments, demonstrations, and equipment; advances in technology; laboratory management and safety. May be repeated to a maximum of 8 hours as long as no topic is repeated. Primarily for teachers of science.

Registration Consent: Instructor

SCI 411 - Selected Topics in Chemistry - 2 to 4

New discoveries and/or methodologies and techniques in the field. Demonstration and laboratory experiences to support the learning process. May be repeated to a maximum of 8 hours as long as no topic is repeated. Primarily for teachers of science.

Registration Consent: Instructor

SCI 414 - History of Chemistry - 1 to 3

Topics in history of chemistry. May be repeated to a maximum of 6 hours so long as no topic is repeated. Requires consent of instructor.

Registration Consent: Instructor

SCI 415 - Selected Techniques in Chemistry - 2 to 4

Modern experiments, demonstrations, and equipment; advances in technology; laboratory management and safety. May be repeated to a maximum of 8 hours as long as no topic is repeated. Primarily for teachers of science.

Registration Consent: Instructor

SCI 421 - Selected Topics in Biology - 2 to 4

New discoveries and/or methodologies and techniques in the field. Demonstration and laboratory experiences to support the learning process. May be repeated to a maximum of 8 hours as long as no topic is repeated. Primarily for teachers of science.

Registration Consent: Instructor

SCI 425 - Selected Techniques in Biology - 2 to 4

Modern experiments, demonstrations, and equipment; advances in technology; laboratory management and safety. May be repeated to a maximum of 8 hours as long as no topic is repeated. Primarily for teachers of science. Requires consent of Instructor.

Registration Consent: Instructor

SCI 431 - Selected Topics in Earth & Environmental Science - 2 to 4

New discoveries and/or methodologies and techniques in the field. Demonstration and laboratory experiences to support the learning process. May be repeated to a maximum of 8 hours as long as no topic is repeated. Primarily for teachers of science. Requires consent of instructor.

Registration Consent: Instructor

SCI 435 - Selected Techniques in Earth & Environmental Science - 2 to 4

Modern experiments, demonstrations, and equipment; advances in technology; laboratory management and safety. Primarily for teachers of science.

Registration Consent: Instructor

SCI 442 - Special Topics in Teaching Science in Elementary School - 1 to 4

Topics of special interest in teaching science. Lecture and/or laboratory format. May be repeated to a maximum of 8 hours as long as no topic is repeated.

SCI 451 - Integrated Science - 3

Laboratory-based integrated science course. Interactions of the sciences-earth and space, physical, life sciences and mathematics. Research project, paper, and presentation.

SCI 452 - Special Topics in Teaching Science in Secondary School - 1 to 4

Topics of special interest in teaching science. Lecture and/or laboratory format. May be repeated to a maximum of 8 hours as long as no topic is repeated. Requires consent of instructor.

Registration Consent: Instructor

SCI 462 - Special Topics in Teaching Science in College - 1 to 4 (F)

Topics of special interest in teaching science. Lecture and/or laboratory format. May be repeated to a maximum of 8 hours as long as no topic is repeated.

Registration Consent: Instructor

SCI 489 - Independent Study in Science Education - 1 to 3

Supervised study of assigned material based on needs of student. May be repeated to a maximum of 9 hours as long as no topic is repeated. Primarily for teachers of science. Requires consent of instructor.

Registration Consent: Instructor

Supply Chain Management (SCM)

SCM 529 - Operations Management and Process Analysis - 3

A process view of operations management concepts such as process design, capacity, flow time, supply chain and logistics in manufacturing and service organizations is presented.

Prerequisites: Graduate level MBA 521 Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

SCM 530 - Supply Chain Planning: Models & Applications - 3

This course covers models and tools for effective supply chain planning in organizations, including topics such as demand planning, network planning, inventory planning among others.

Restrictions: Must be enrolled in one of the following Levels: Graduate, Must be enrolled in one of the following Colleges: School of Business

Sociology (SOC)

SOC 421 - Individual and Society - 3 (F)

Integration of individual and society; role structure and orientation to society; habits, communication, channels of meaning, emergence, presentation and defense of self.

Attributes: BSS

SOC 422 - White Collar Crime and Elite Deviance - 3

An examination of the nature, extent, and distribution of white-collar crime as well as its causes, correlates and control.

Attributes: BSS

SOC 431 - Employment & Workplace Change - 3 (FM)

Practical application and critical analysis of theories, approaches, strategies of organizational and workplace change. Organizations as mechanistic, organic cultures, political systems and arenas of conflict.

Attributes: BSS

SOC 440 - Sociology of Popular Culture - 3 (aS)

Relevant theories, methodologies, and works of original research. Students apply knowledge gained by analyzing examples from contemporary popular culture.

Attributes: BSS
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

SOC 470 - Sociology of Deviance - 3

Behavior such as prostitution, drug use, murder, racism, sexual variances, rape and insanity examined theoretically and empirically.

Attributes: BSS

SOC 474 - Victims and Society - 3

Sociological analysis of war, crime, inequality, racism, sexism and other victim-generating conditions and processes; a non-lecture, active-learning course.

Attributes: BSS
Prerequisites: SOC 111.

SOC 490 - Special Topics in Sociology - 3

Topics not included in regular course offerings. May be repeated once to a maximum of 6 hours provided no topic is repeated.

Attributes: SS

SOC 500 - Professionalization Seminar - 3 (F)

This class is designed to assist new graduate students as they actively plan out their time in the Sociology MA program. Class time will focus on practical skills that can be used while enrolled and over the life of their careers. Practical skills include: time management, goal setting, research resources, networking, professional interactions, and career pathways.

Restrictions: Must be enrolled in one of the following Majors: Sociology, Must be enrolled in one of the following Levels: Graduate

SOC 501 - Survey of Theory - 3 (F)

Classical and contemporary theory connecting to historical context, vision, research, application, and other seminars in the sociology graduate programs.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOC 502 - Seminar in Intergroup Relations - 3

Cross-cultural study of racial, ethnic, and intra-faith relations. Causes of conflict; accommodation; domination; acculturation; assimilation; pluralism.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOC 515 - Research Methods & Study Design in Sociology - 3 (F)

Basic research methods and designs; analysis of social science data; logic of scientific inquiry. Includes preparation of thesis/internship research proposal.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOC 518 - Advanced Data Analysis - 3 (S)

Data analysis methods used in quantitative social research, including statistical analysis with SPSS and demographic techniques. Descriptive and inferential statistics including multivariate techniques. Prerequisite: One course in statistics.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOC 542 - Seminar in Gender & Gender Inequality - 3

Theoretical perspectives on the creation, reproduction and maintenance of gender and gender inequality. Course history: Course replaces quarter based SOC 542.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOC 574 - Seminar in Deviance - 3

Theoretical approaches to such phenomena as drug addiction, mental illness, sexual variances, suicide, and criminal behaviors; emphasis on cross-cultural, historical and empirical data. Course history: Course replaces quarter based SOC 574.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOC 590 - Special Topics - 3 (FMS)

Seminar on topic not included in regular course offerings. May be repeated provided no topic is repeated.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOC 592 - Research Practicum - 3 (F)

Experience in carrying out and reporting a research project, includes hypothesis; generation; data collection and analysis; and oral presentation and

written report. Prerequisite: 18 hours of graduate, including SOC 515, or permission of graduate adviser.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOC 593A - Graduate Internship Experience - 3 (F)

Supervised work experience in research or public service organization; requires 140 hours of work time. May be counted toward completion of MA exit requirement. Requires consent of graduate coordinator.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

SOC 593B - Graduate Internship Report - 3 (S)

Written report relating sociological concepts to internship experience. Counts toward completion of MA exit requirements in combination with successful completion of SOC 593A. Prerequisite: SOC 593A.

Prerequisites: Graduate level SOC 593A Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

SOC 595 - Individual Research - 1 to 6 (FS)

Supervised research projects. May be repeated to a maximum of 6 hours. Course history: Replaces quarter based SOC 595. Requires consent of instructor and graduate coordinator.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

SOC 596 - Readings in Sociology - 1 to 6 (aF)

Supervised readings in selected subjects. May be repeated to a maximum of 6 hours. Requires consent of instructor.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

SOC 599 - Thesis - 3 to 6 (FS)

Supervised research in approved topic; written proposal &oral defense required. May be repeated to a maximum of 6 hours. Course history: Course replaces quarter based SOC 599. Requires consent of department chair or program director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Dept Chair-Program Director

Social Work (SOCW)

SOCW 420 - Substance Abuse - 3

The course is designed to help students understand the etiology, course, and treatment of substance use disorders and other addictions. Special emphasis will be given to biological, psychological, and sociological theories of addiction. Addictions will be viewed within a “person-in-environment” context.

Attributes: SS
Prerequisites: (ENG 101 Minimum Grade of C OR ENG 101N Minimum Grade of C) OR ENG 101E Minimum Grade of C AND (ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C).

SOCW 430 - Integrating Spirituality and Religion in Social Work Practice - 3

Explores the concept of spirituality as it relates to social work practice.

Prerequisites: (ENG 101 Minimum Grade of C OR ENG 101N Minimum Grade of C) OR ENG 101E Minimum Grade of C AND (ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C).

SOCW 440 - International & Global Issues in Social Work - 3

Explores social work practice with international populations within and outside the United States.

Prerequisites: (ENG 101 Minimum Grade of C OR ENG 101N Minimum Grade of C) OR ENG 101E Minimum Grade of C AND (ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C).

SOCW 461 - Children, Youth and Family Services - 3 (S)

Study of practice models, ethical and cultural issues, and intervention skills for work with children and families, including those in child welfare.

Attributes: SS

SOCW 486 - Street Gangs: Critical Perspectives - 3

Will provide an alternative understanding of street gangs as a form of social organization in urban communities.

Attributes: SS
Prerequisites: (ENG 101 Minimum Grade of C OR ENG 101N Minimum Grade of C) OR ENG 101E Minimum Grade of C AND (ENG 102 Minimum Grade of C OR ENG 102N Minimum Grade of C).

SOCW 501 - Generalist Practice: Individuals & Families - 3 (F)

Generalist practice methods with individuals, families, and groups for enhancement of social functioning. Special focus on gender, age, race, ethnicity, and class. Prerequisite: for social work graduate students, admission to the MSW program.

Restrictions: Must be enrolled in one of the following Levels: Graduate

SOCW 502 - Generalist Practice with Organizations and Communities - 3 (M)

General practice in communities, including locality development, social planning, advocacy, and social action. Strategies for working within organization to promote change.

Restrictions: Must be enrolled in one of the following Majors: Social Work, May not be enrolled as the following Levels: Undergraduate

SOCW 503 - Interviewing and Documentation in Social Work Practice - 3 (F)

Micro skills of counseling for generalist social work practice. Lab based. Specific focus on cultural competency, professional values/ethics, and social justice for oppressed populations. Prerequisite: for social work graduate students, admission to the MSW program; for non-social work graduate students, permission of MSW program director.

Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 504 - Social Welfare Policy - 3 (S)

Social welfare policies and services, including their historical evolution, inherent values and ideology, and their effects on social problems and the social work profession. Prerequisite: for social work graduate students, admission to the MSW program; for non-social work graduate students, permission of MSW program director.

Restrictions: Must be enrolled in one of the following Levels: Graduate

SOCW 505 - Generalist Practice with Groups - 3 (S)

Social group work intervention within the generalist framework. Leadership skills to conduct treatment and task groups. Special knowledge and skills for diverse populations. Prerequisite: for social work graduate students, admission to the MSW program; for non-social work graduate students, permission of MSW program director.

Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 506 - Research Methods & Data Analysis - 3 (S)

Theory and application of quantitative and qualitative research methods for social work theory and practice. Focus on research designs and data analysis, and on interpreting research findings. Includes lab. Prerequisite: for social work graduate students, admission to the MSW program; for non-social work graduate students, permission of MSW program director.

Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 507 - Human Behavior in the Social

Environment - 3 (F)

Examination of biophysical, psychological, and social aspects of human development across the life course, within the ecological systems perspective, including challenges of minority groups. Prerequisite: for social work graduate students, admission to the MSW program; for non-social work graduate students, permission of MSW program director.

Restrictions: Must be enrolled in one of the following Levels: Graduate

SOCW 508 - Diversity, Values, Ethics, and Social Justice Principles and Practice - 3 (F)

Understanding diverse groups distinguished by race/ethnicity, class, gender, religion, sexual orientation, age, and ability. Implications for social justice practice and NASW Code of Ethics.

Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 526 - Graduate Foundation Practicum Seminar I - 3 (S)

The first of two foundation supervised social work practice experiences of at least 225 hours each in an approved social service setting. Includes an integrative seminar.

Prerequisites: Graduate level SOCW 501 Minimum Grade of C AND Graduate level SOCW 503 Minimum Grade of C AND Graduate level SOCW 507 Minimum Grade of C AND Graduate level SOCW 508 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

SOCW 527 - Graduate Foundation Practicum Seminar II - 3 (M)

The second of two supervised social work practice experiences of at least 225 hours each in an approved social service setting. Includes an integrative seminar.

Prerequisites: Graduate level SOCW 526 Minimum Grade of B
Restrictions: May not be enrolled as the following Levels: Undergraduate

SOCW 528 - Graduate Specialized Practicum Seminar I - 3 (S)

The first of two supervised concentration field experiences of at least 250 hours each in an approved setting. Includes an integrative seminar. Requires completion of foundation curriculum or advanced standing status.

Prerequisites: Graduate level SOCW 501 Minimum Grade of C AND Graduate level SOCW 502 Minimum Grade of C AND Graduate level SOCW 504 Minimum Grade of C AND Graduate level SOCW 507 Minimum Grade of C AND Graduate level SOCW 526 Minimum Grade of B AND Graduate level SOCW 527 Minimum Grade of B
Restrictions: May not be enrolled as the following Levels: Undergraduate

SOCW 529 - Graduate Specialized Practicum Seminar II - 3 (M)

The second of two supervised concentration field experiences of at least 250 hours each in an approved setting. Includes an integrative seminar.

Prerequisites: Graduate level SOCW 528 Minimum Grade of B.
Restrictions: May not be enrolled as the following Levels: Undergraduate

SOCW 531 - Block Field Instruction I - 6

Supervised social work practice experience (minimum of 450 hours) in an approved social service setting. Includes a seminar to integrate knowledge and practice. Substitutes for SOCW 526 and SOCW 527.

Prerequisites: Graduate level SOCW 501 Minimum Grade of C AND Graduate level SOCW 503 Minimum Grade of C AND Graduate level SOCW 507 Minimum Grade of C AND Graduate level SOCW 508 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

SOCW 532 - Block Field Instruction II - 6

Supervised concentration field experience of at least 500 hours. Includes an integrative seminar. Substitutes for SOCW 528 and SOCW 529. Requires completion of foundation curriculum or advanced standing status and permission of Director of Practica.

Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Dept Chair-Program Director

SOCW 533 - Social Work Practice in Schools - 3 (M)

Examines the history of school social work, the legal mandates, and institutional policies that impact social work practice in public schools. Prerequisites: Admission to MSW school social work program.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOCW 537 - Psychopathology and Diagnostic Assessment - 3 (M)

Comprehensive examination of forms of psychopathology and skills for DSM-IV-TR diagnosis. Social work values, ethics, and perspectives related to medical model explored. Requires admission to MSW program.

Restrictions: Must be enrolled in one of the following Majors: Social Work, May not be enrolled as the following Levels: Undergraduate

SOCW 546 - Applied Social Science Research - 3 (S)

Methods of both basic and applied social research. Students conduct either a program evaluation or write a grant proposal for agency use. Prerequisite: completion of all foundation courses or advanced standing status. Prerequisite: 501, 502, 503, 504, 505, 506, 507 (Foundation courses) or permission of MSW program director.

Prerequisites: Graduate level SOCW 501 Minimum Grade of C AND Graduate level SOCW 502 Minimum Grade of C AND Graduate level SOCW 503 Minimum Grade of C AND Graduate level SOCW 504 Minimum Grade of C AND Graduate level SOCW 505 Minimum Grade of C AND Graduate level SOCW 506 Minimum Grade of C AND Graduate level SOCW 507 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 550 - Advanced Micro Practice - 3 (F)

This course focuses on advanced social work practice with individuals, families, and groups; it builds on the foundation courses in generalist social work practice and human behavior.

Restrictions: Must be enrolled in one of the following Levels: Graduate

SOCW 551 - Social Work: Advanced Policy - 3 (F)

The course will review and provide in-depth coverage of the areas of social policy that students have an entering knowledge of, and students will engage in focused research related to a specific social welfare policy and problem which is of particular interest to them, looking in-depth at both micro- and macro-level impacts of the social problem and policy

Restrictions: Must be enrolled in one of the following Levels: Graduate

SOCW 552 - Advanced Macro Practice - 3 (FM)

The course involves an in-depth analysis of the various theoretical, socio-political, and environmental factors that shape the dynamics of macro-practice. The course addresses the impact of these macro-level domains on micro-level systems.

Restrictions: Must be enrolled in one of the following Levels: Graduate

SOCW 560 - Mental Health Services - 3 (S)

Models and skills used in psychosocial treatment of mental disorders. Examination of managed care, political, and economic influences on service delivery systems.

Restrictions: Must be enrolled in one of the

following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 561 - Children, Youth and Family Services - 3

Study of practice models, ethical and cultural issues, and intervention skills for work in public child welfare, juvenile justice, and other child and adolescent services.

Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 563 - Gerontology Services - 3

Surveys theories of aging and teaches methods and skills of work with older Americans. Issues of cultural compatibility, social action and empowerment strategies. Prerequisite: completion of all foundation courses or advanced standing status.

Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 564 - Substance Abuse Services - 3 (S)

Examines treatment methods and teaches skills for treatment of alcohol and other drugs. Examines ethical, cultural and policy issues of "war on drugs."

Restrictions: Must be enrolled in one of the following Majors: Social Work, Must be enrolled in one of the following Levels: Graduate

SOCW 565 - Capstone - 3 (M)

Integration of theories and practice models of entire MSW curriculum. Emphasis on critical thinking, diversity issues, and social/economic justice in all fields of practice. Prerequisites: Completion of all foundation and advanced standing courses except those offered concurrently with this course.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SOCW 572 - Post-MSW School Internship - 6

Block internship consisting of a minimum of 600 clock hours in an Illinois public school setting under supervision of an PEL licensed MSW. Prerequisites: SPE 400 and SOCW 533 and admission to the Post-MSW Professional Program.

Prerequisites: SPE 400 AND Graduate level SOCW 533 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

SOCW 596 - Readings in Social Work - 1 to 6 (FS)

Supervised readings in selected subjects. May be repeated to a maximum of 6 hours. Requires consent of instructor and MSW director.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Spanish (SPAN)

SPAN 440 - Contemporary Spanish American Cinema - 3

This course offers a survey of Latin America cinema, concentrating on the critical analysis of representative films, with particular attention to different national cultures.

Attributes: BHUM, EGC
Prerequisites: SPAN 311 Minimum Grade of C OR SPAN 312 Minimum Grade of C

SPAN 454 - Seminar - 3 to 6

Critical and analytical study of selected topics of literature or literary criticism. May be repeated to a maximum of 6 hours provided that no topic is repeated.

Attributes: BHUM
Prerequisites: SPAN 301 or SPAN 302

SPAN 457 - Don Quixote - 3

Critical and analytical study of Cervantes' masterpiece.

Attributes: BHUM, EGC
Prerequisites: SPAN 301 or SPAN 302

SPAN 491 - Cultural & Language Workshop - Spanish - 3 to 6 (S)

Comparative or contrastive linguistics, advanced methodology and techniques. In-depth study of foreign cultures, travel-study abroad. Supervised projects in foreign studies. May be repeated to a maximum of 6 hours provided no topic is repeated.

Attributes: EGC, HUM

SPAN 492 - Service Learning for the Advanced Student - 3

Projects. Study abroad in a service-learning context. Hands on field study with emphasis on target culture and language, oral and written communication and supervised individual Requires completion of stated prerequisites or permission of instructor.

Attributes: EGC, EUSC, HUM
Prerequisites: SPAN 301

SPAN 499 - Readings in Spanish - 3

Selected areas of language, literature, and culture. Individual work or small groups supervised by Spanish faculty. Requires consent of instructor.

Attributes: HUM
Registration Consent: Instructor

SPAN 551 - Seminar On A Selected Spanish Author - 3

Intensive study of one author. May be repeated once for a total of 6 hours, if authors vary. Course history: Course replaces the quarter based course Spanish 501.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPAN 557 - Seminar On A Selected Spanish American Author - 3

Intensive study of one author. May be repeated for a total of 6 hours, if authors vary. Course history: Course replaces the quarter based course Spanish 502.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPAN 559 - Special Topics in Latin American Literature - 3

Issues such as the Gaucho, the Indian, revolution and social change. Maybe repeated once to a total of 6 hours, if topics vary. Course history: Course replaces the quarter based course Spanish 559.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Special Education (SPE)

SPE 400 - The Exceptional Child - 3 (FMS)

Psychology, identification, and methods of teaching individuals with exceptionalities, including individuals with learning disabilities. Prerequisites: Admission to teacher education program or instructor approval.

Attributes: EUSC
Registration Consent: SEHHB Advisor

SPE 417A - Introductory Reading and Language Arts Methods in Special Education - 3 (F)

Candidates will learn and apply foundational theory and methods for teaching reading and language arts to students with disabilities.

Prerequisites: Corequisite with SPE401
Corequisites: SPE401
Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

SPE 417B - Advanced Reading and Language Arts Methods in Special Education - 3 (S)

Candidates will learn and apply advanced methods of assessment and instruction in reading and language arts for teaching students with disabilities.

Restrictions: Must be enrolled in one of the following Levels: Graduate; Undergraduate

SPE 421 - Mathematics Methods in Special Education - 3 (F)

Preparation of pre-service teachers with knowledge and skill in the use of effective teaching techniques in mathematics for persons with disabilities.

SPE 430A - Introduction to Classroom Management and Behavior Support - 3 (FMS)

Designing effective learning environments that use evidence-based practices to prevent problems and support social interaction and appropriate classroom behavior.

Restrictions: Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration): Teacher Education,Special Education, Must be enrolled in one of the following Levels: Graduate; Undergraduate

SPE 440 - Infants and Toddlers with Special Needs and Their Families - 3 (FM)

Characteristics and interactions of infants and toddlers with special needs and their families; emphasizes collaboration with families and current research, theory and federal/state policies.

Registration Consent: SEHHB Advisor

SPE 441 - Assessment of Preschool Children with Special Needs - 3 (FM)

Instruments for assessment of academic, cognitive, perceptual-motor development. Diagnosis and remediation.

Prerequisites: SPE 440

SPE 442 - Methods and Procedures for Teaching Early Childhood Students with Disabilities - 3 (FM)

Knowledge and skills needed to provide educational services and supports to early childhood students with disabilities and their families. Requires 10 hours field experience. Not for graduate credit.

Prerequisites: SPE 440 Corequisite with SPE 401, SPE405, SPE417A, SPE430A
Corequisites: SPE401, SPE405, SPE417A, SPE430A

SPE 470 - Transition Planning - 2 (S)

Overview of transition planning and programming for students with disabilities.

SPE 481 - Student Teaching Seminar in Special Education - 3 (FS)

Professional, ethical, and legal concerns of assessment; instruction, evaluation, behavior management, and technologies.

Restrictions: Must be enrolled in one of the following Majors: Teacher Education,Special Education, Must be enrolled in one of the following Levels: Graduate; Undergraduate

SPE 498 - Workshop: Selected Topics in Special Education - 3 to 6

Topical workshop on concepts, strategies, and concerns in special education. May be repeated to a maximum of 6 hours.

SPE 500 - Research in Special Education - 3 (F)

The course will provide students with foundational knowledge on research in education so students can become competent consumers of research. The course will include information on developing a literature review, quantitative and qualitative research designs, data collection methods, and methods for analyzing and interpreting data.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 502 - Characteristics of Individuals with Disabilities - 3 (M)

Provides teachers with an understanding of the characteristics of students with disabilities including ethical considerations, interventions and educational modifications.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 506 - Collaboration, Consultation, and Conduct in Special Education - 3

Strategies for assisting parents with issues relating to disabilities and for collaborative teaming between school and home.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 507 - Social and Emotional Learning (SEL) - 1 to 6

Examination of current topics in social and emotional learning (SEL) in the areas of self-

awareness, self-management, social awareness, relationship skills, and responsible decision-making.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 511 - Individualized Educational Assessment - 3 (M)

Formal and informal assessment strategies as applied to the identification, evaluation and ongoing development of the individual with a disability.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 514 - Legal Aspects of Special Education - 3 (F)

State and federal regulations, statutes, and court cases affecting implementation of special education services.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 515 - Administration & Supervision of Special Education Services - 3 (M)

Models and practices for supervision and administration of special education programs and districts.

Prerequisites: Graduate level SPE 514 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 516 - Instructional and Assistive Technology - 3 (FS)

Focus on enhancing the technology skills of teachers who teach students with learning/behavior problems.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 517 - Special Education Finance - 3 (S)

An overview of fiscal issues in special education administration addressing certification/licensure requirements for the Illinois Director of Special Education endorsement.

Restrictions: May not be enrolled as the following Levels: Undergraduate, Must be enrolled in one of the following Colleges: Sch of Ed, Hlth and Human Behav

SPE 518 - Workshop in Special Education - 1 to 12

Examination of current topics in special education. This course can be repeated up to 12 hours for credit.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 522 - Instructional Methods for Students with Mild/Moderate Disabilities - 3 (M)

Emphasis on current research and application of instructional methodology.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 523 - Instructional Methods for Students with Severe Disabilities - 3 (F)

Program characteristics, assessment, instruction and curriculum across educational environments; data-based decision-making; collaboration and leadership in programs for students with moderate/severe disabilities.

Restrictions: Must be enrolled in one of the following Levels: Graduate

SPE 524 - Curriculum Adaptations and Modifications for Individuals with Disabilities - 3 (M)

Advanced knowledge and application of instructional strategies.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 530 - Early Childhood Education of the Disabled - 3

In-depth study of developmental disabilities; theories of early childhood education and curriculum appropriate for variety and severity of handicaps encountered in preschool classrooms.

Prerequisites: Graduate level SPE 500 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 532 - Assessment of the Young Children with Disabilities - 3

Formal and informal diagnostic techniques for planning and implementing prescriptive programs. Case study evaluation; task analysis; IEPS; record keeping; child find.

Prerequisites: Graduate level SPE 530 Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 540 - Behavioral Issues and the Learning Environment - 3 (S)

Analysis of theory and practice of behavior management education; application in special education and general education settings is emphasized.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 578 - Field Study - 1 to 6 (FMS)

School or community based education experiences in special education required for teacher certification or professional growth and development.

Restrictions: May not be enrolled as the following Levels: Undergraduate

SPE 595 - Action Research in Special Education - 3 (S)

Course is for advanced master's level students. Focus on the knowledge and skills necessary to design and implement an action research project.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Speech Pathology and Audiology (SPPA)

SPPA 503 - Research Methods - 3 (F)

Aspects related to evidence-based research, various types, designs, validity, quantitative and qualitative data analysis and its clinical applications.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 510 - Independent Study in Speech-Language Pathology - 1 to 3 (FS)

Independent study and reading in Speech-Language Pathology.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 511 - Counseling Strategies for Speech-Language Pathologists - 2

Counseling theory, process, and application to individuals who present a variety of communication disorders and the families of these individuals.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 515 - Special Topics in Speech-Language Pathology & Audiology - 1 to 3 (M)

Readings, individual studies, and research. Varied content to be offered as student and faculty interest and time permit. May be repeated to a maximum of 6 hours if topics vary. Requires consent of instructor.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

SPPA 540 - Child Language Disorders: Birth to Five - 3 (F)

Comprehensive approach to evaluation, assessment and treatment of communication deficits in infants, toddlers and preschoolers with special needs.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 541 - Advanced Seminar in Child Speech Sound Disorders - 3 (F)

Theoretical and clinical perspectives on the etiology, assessment and treatment of child speech sound disorders.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 542 - Seminar in Voice Disorders - 3 (S)

Course dealing with etiology, assessment, and treatment strategies for voice disorders throughout the lifespan.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 543 - Fluency Disorders - 3 (F)

Etiological factors, assessment, and intervention for individuals who experience dysfluencies from pre-school age through adulthood.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 544 - Child Language Disorders in School-Aged Children - 3 (S)

Comprehensive approach to evaluation, assessment and treatment of communication deficits in school-aged children.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 545 - Acquired Communication Disorders in Adults - 3 (S)

Examines characteristics of the acquired neurogenic disorders of aphasia, right hemisphere dysfunction, dementia, and other cognitive disorders.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 547 - Motor Speech Disorders - 3 (F)

Evaluation and treatment of individuals with dysarthria and apraxia of speech due to static and degenerative conditions.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 548 - Dysphagia - 3

Course dealing with etiology, assessment, & treatment strategies for individuals with feeding and swallowing disorders from infancy through adulthood.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 549A - Graduate Practicum in Speech-Language Pathology I - 1 to 6 (FMS)

Supervised clinical practice at the SIUE speech, language and hearing center. May be repeated to 15 hours.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate
Registration Consent: Instructor

SPPA 549B - Graduate Practicum in Speech-Language Pathology II - 5 to 8 (S)

Supervised clinical practice in the treatment and diagnoses of children with communication disorders in an educational setting. May be repeated up to 15 hours under the supervision of certified SLPS.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 549C - Graduate Practicum in Speech-Language Pathology III - 3 to 8 (S)

Supervised clinical practice in the treatment and diagnoses of children with communication disorders in a medical setting. May be repeated up to 15 hours.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 549D - Graduate Practicum in Speech-Language Pathology IV - 3 to 8 (F)

Supervised clinical practicum in the treatment and diagnoses of children or adults with communication disorders. May be repeated to a maxium of 12 hours.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 550 - Culturally Responsive Professional Practice - 3

Intentional conversations focused on expanding and connecting knowledge of diversity, equity, and inclusion with experiences preparing students to be culturally responsive practitioners.

Registration Consent: Instructor

SPPA 555 - Acquired Brain Injury - 3

Examines neurophysiological, cognitive, neuropsychological, and social/emotional issues associated with acquired brain injury.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 558 - Advanced Course in Augmentative and Alternative Communication - 3 (F)

Evaluation and treatment using augmentative and alternative communication including communication boards and speech-generating devices.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, Must be enrolled in one of the following Levels: Graduate

SPPA 560 - Professional Issues in Speech-Language Pathology - 3 (S)

Seminar addressing ethical and professional issues in speech-language pathology and audiology. Includes information related to foundations, policies and procedures in educational and medical settings.

Restrictions: Must be enrolled in one of the following Majors: Speech Language Pathology, May not be enrolled as the following Levels: Undergraduate

SPPA 599 - Thesis - 1 to 6 (S)

May be repeated to a maximum of 6 hours.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

Statistics (STAT)

STAT 478 - Time Series Analysis - 3

Statistical analysis of time series. Regression and exponential smoothing. Box-Jenkins methodology.

Attributes: PS
Prerequisites: STAT 380 Minimum Grade of C or STAT 480B Minimum Grade of C

STAT 480A - Introduction to Mathematical Statistics - 3 (F)

Mathematical statistical theory. Probability models, distributions of random variables, sampling distributions, generating functions, central limit theorem, limiting distributions, parameter estimation, statistical hypotheses, and linear models. Must be taken in sequence.

Attributes: PS
Prerequisites: MATH 250 Minimum Grade of C

STAT 480B - Introduction to Mathematical Statistics - 3 (S)

Parameter estimation, statistical hypotheses, and linear models.

Attributes: PS
Prerequisites: STAT 480A Minimum Grade of C

STAT 481 - Design & Analysis of Experiments with Applications to Science and Engineering - 3 (S)

Design for experimentation and statistical inference with engineering and science applications. One-way, two-way classification; complete and incomplete block designs. Factorial and fractional factorial designs.Crosslisted with IE 464.

Attributes: PS
Prerequisites: STAT 380 Minimum Grade of C or STAT 480A Minimum Grade C and STAT 480B

Minimum Grade C

STAT 482 - Regression Analysis - 3 (F)

Inference in simple, multiple, polynomial and non-linear regression. Stepwise regression, subset selection; residual analysis, transformations and diagnostics.

Attributes: PS
Prerequisites: STAT 380 Minimum Grade of C or STAT 480A Minimum Grade C and STAT 480B Minimum Grade C

STAT 483 - Sample Surveys - 3

Simple random sampling, stratified sampling, one-stage and two-stage cluster sampling. Ratio, regression, difference estimation. Estimation of population size.

Attributes: PS
Prerequisites: STAT 380 Minimum Grade of C or STAT 480A Minimum Grade C and STAT 480B Minimum Grade C

STAT 484 - Reliability Engineering - 3

Probabilistic models for the reliability of coherent systems. Statistical models for lifetimes of components and for repairable systems. Reliability estimation and production. MIL standards. Same as IE 463. Requires completion of stated prerequisites or consent of instructor.

Attributes: PS
Prerequisites: STAT 380 Minimum Grade of C or STAT 480B Minimum Grade C

STAT 485 - Stochastic Processes - 3

Markov chains with applications. Poisson processes. Markov processes with discrete states in continuous time. Renewal theory and queuing theory. Brownian motion and stationary processes.

Attributes: PS
Prerequisites: STAT 480A Minimum Grade of C

STAT 486A - Actuarial Mathematics - 3 (aS)

Utility theory, risk models, survival distributions, life tables. Life insurance models, life annuities, premium calculation, and valuation theory for pension plans.

Attributes: PS
Prerequisites: MATH 340 Minimum Grade of C AND (STAT 380 Minimum Grade of C OR STAT 480A Minimum Grade of C)

STAT 488 - Design and Control of Quality Systems - 3 (S)

Quality design by experimental design; determination of process capability; quality control using statistical control charts; acceptance sampling. Same as IME 465.

Attributes: PS
Prerequisites: (STAT 480A Minimum Grade of C AND STAT 480B Minimum Grade of C) OR STAT 380 Minimum Grade of C

STAT 489 - Applied Statistical Learning & Data Mining - 3

Survey of supervised learning methods and prediction models. Linear and logistical regression, linear discriminant analysis, resampling, regularization, generalized additive models, decision trees, bagging and boosting.

Prerequisites: STAT 380 Minimum Grade of C admission to graduate Math and programming experience or consent of instructor.

STAT 490 - Topics in Statistics - 1 to 3

Selected topics in statistics.

Attributes: PS
Registration Consent: Instructor

STAT 495 - Independent Study - 1 to 3

Research and reading in specified area of interest such as analysis of variance, design of experiments, estimation, testing hypotheses, linear models, robust procedures, reliability. May be repeated to a maximum of 9 hours. Requires written consent of adviser and instructor.

Attributes: PS
Registration Consent: Instructor and Advisor

STAT 535 - Statistics Content, Connections, and

Best Practices - 3

A focused look at data analysis and probability, best practices in pedagogy, and connections to other areas. Within the Department of mathematics and Statistics credit can only be earned for the Postsecondary mathematics Education specialization.

Prerequisites: STAT 244 Minimum Grade of C OR MATH 250 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

STAT 560 - Foundations of Data Science - 3 (F)

Probability, random variables, sampling distributions, statistical inference, data management, overview of types of data objects, data manipulation and organization. Computing methods will be illustrated using R. Does not count toward a degree in mathematics.

Restrictions: Must be enrolled in one of the following Majors: Data Science, May not be enrolled as the following Levels: Undergraduate

STAT 561 - Predictive Modeling and Visualization - 3 (S)

Regression and forecasting methods, regularization and feature selection, model trade-offs, fundamentals of creating dashboards, use of visual and analytical methods to display and communicate data findings. Computing methods will be illustrated using R.

Prerequisites: Graduate level STAT 560 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

STAT 562 - Machine Learning and Classification Methods - 3 (F)

Prerequisites: Graduate level STAT 560 Minimum Grade of C
Restrictions: Must be enrolled in one of the following Levels: Graduate

STAT 575 - Statistical Computing - 3

Numerical methods for statistical analysis. Numerical linear algebra for multiple regression. Unconstrained optimization for approximation of maximum likelihood estimates. Numerical integration and function approximation.

Prerequisites: STAT 480B Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

STAT 579 - Discrete Multivariate Analysis - 3

Models for discrete data, two dimensional and higher dimensional tables. Categorical data analysis, chi- square goodness of fit tests. Maximum likelihood estimation of parameters.

Prerequisites: STAT 480A Minimum Grade of C AND STAT 480B Minimum Grade of C
Restrictions: May not be enrolled as the following Levels: Undergraduate

STAT 581 - Advanced Experimental Design - 3

Robust design and Taguchi methods. Orthogonal arrays and first-order models. Steepest ascent. Response surface designs, including central composite and Box-Behnken designs.

Prerequisites: (STAT 480A Minimum Grade of C OR Graduate level STAT 480A Minimum Grade of C) AND (STAT 482 Minimum Grade of C OR Graduate level STAT 482 Minimum Grade of C) AND (STAT 480B Minimum Grade of C OR Graduate level STAT 480B Minimum Grade of C)
Restrictions: May not be enrolled as the following Levels: Undergraduate

STAT 582 - Linear Models - 3

Matrix algebra; quadratic forms and their distributions; estimation; hypothesis testing for full rank model; estimation and testing for less than full rank model.

Prerequisites: STAT 480A Minimum Grade of C AND STAT 480B Minimum Grade of C AND STAT 482 Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

STAT 588 - Advanced Quality Control - 3

Prerequisites: STAT 480A Minimum Grade of C AND STAT 480B Minimum Grade of C.
Restrictions: May not be enrolled as the following Levels: Undergraduate

STAT 589 - Multivariate Analysis - 3

Matrix algebra; multivariate normal distribution; inference for a mean vector; comparison of several mean vectors; principle components; clustering; discrimination and classification.

Prerequisites: STAT 480A Minimum Grade of C AND STAT 480B Minimum Grade of C.
Restrictions: Must be enrolled in one of the following Levels: Graduate

STAT 590 - Seminar - 3

Intensive study of topics such as analysis of variance, design of experiments, estimation, nonparametric methods, robust procedures, linear models and reliability. Requires written consent of adviser and instructor.

Restrictions: Must be enrolled in one of the following Levels: Graduate

STAT 595 - Special Project - 1 to 7

Independent study in topics such as analysis of variance, experimental design, estimation, linear models, multivariate analysis, nonparametric statistics, quality control and reliability. May be used to satisfy research paper requirement for M.S. degree. Repeatable to a maximum of 7 credit hours. Requires consent of research adviser.

Restrictions: May not be enrolled as the following Levels: Undergraduate
Registration Consent: Instructor

STAT 599 - Thesis - 1 to 6

Directed research to satisfy thesis requirement. May be repeated to a maximum of 6 hours. Requires consent of thesis adviser.

Restrictions: Must be enrolled in one of the following Levels: Graduate

University Experience (UNIV)

UNIV 500 - Continuing Enrollment - 0 (FMS)

Classified, master's level students, who are not otherwise enrolled during an academic term, can maintain access to university resources only by enrollment in UNIV500. No grade is assigned for the course. Ordinary tuition and fees do not apply.

Restrictions: May not be enrolled as the following Levels: Undergraduate

Women's Studies (WMST)

WMST 428 - Topics in European Women's History - 3

Selected topics in women's history since the middle ages. Chronological framework will vary from semester to semester. Same as HIST 428.

Attributes: BHUM, EGC

WMST 441 - Women and Politics in America - 3

Consideration of politics and power in gender roles, family, class, occupation and research, women and the political system and women and public policy. Same as POLS 441.

Attributes: BSS, EUSC, IS
Prerequisites: Complete all Foundations Requirements.

WMST 451 - Gender and Education - 3 (S)

Policies and practices related to sex-role stereotyping, teacher expectations and gender, curricular bias, discrimination, personnel policies, strategies for change. Same as EPFR 451

Attributes: EUSC

WMST 452 - Native American Women - 3

Investigates Native American gender roles, particularly women's roles, from an ethnohistorical perspective. Same as HIST 452.

Attributes: BHUM, EUSC

WMST 456 - Seminar on Women Writers - 3

Fiction, nonfiction, drama, and poetry. Taught in

English. For credit in FL, term paper must be written in French. Same as FR 456

Attributes: BHUM, EGC

WMST 478 - Studies in Women, Language & Literature - 3 (FS)

Relationships among society, gender, language and literature: ways women are affected by and depicted in language and literature; literature written by women; feminist criticism. Same as ENG 478.

Attributes: BHUM, EUSC, IS
Prerequisites: Complete all Foundations Requirements.

WMST 490 - Special Problems - 3

Varying topics, in depth study of gender and women's experience or feminist theory. Content and format to be arranged with instructor. May be repeated for a maximum of 6 hours provided no topic is repeated. Requires consent of department chair or program director.

Registration Consent: Dept Chair-Program Director

WMST 495 - Independent Study - 1 to 4

Individual research in women's experience or feminist theory. Content and format to be arranged with instructor. Requires consent of department chair or program director.

Registration Consent: Dept Chair-Program Director

WMST 499 - Practicum in Women's Studies - 3

Practical learning experience in women-oriented activities or organizations. Ten hours weekly plus readings or paper. Requires consent of department chair or program director.

Registration Consent: Dept Chair-Program Director

WMST 578 - Women and Language - 3

Study of recent research into ways gender affects language: speaking, reading, and writing. Same as ENGL 578.
Restrictions: May not be enrolled as the following Levels: Undergraduate